

# **Santa Fe Springs General Plan and Targeted Zoning Code Update Environmental Impact Report (SCH# 2021050193)**

## **Lead Agency:**

City of Santa Fe Springs  
Planning Department  
11710 Telegraph Road  
Santa Fe Springs, CA 90670



## **Consultant to the City:**

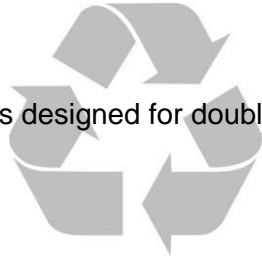
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November 3, 2021



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## **APPENDICES**

- A. NOTICE OF PREPARATION AND NOP COMMENT LETTERS
- B. GPU GOALS AND POLICIES
- C. EXISTING CONDITIONS REPORT
- D. AIR QUALITY, ENERGY, AND GHG ANALYSIS DATA
- E. NOISE ANALYSIS DATA
- F. TRANSPORTATION IMPACT ANALYSIS

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## 1.0 – Introduction

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### 1.1 – CEQA and the Purpose of an EIR

The City of Santa Fe Springs (City or Lead Agency) has prepared an update of its General Plan (General Plan and Targeted Zoning Code Update or GPTZCU), to establish a vision and policies to shape and manage long term growth in the City’s “Planning Area.” The Planning Area includes areas within the City’s incorporated boundaries and areas within the City’s Sphere of Influence (SOI).

The adoption and implementation of the GPTZCU is defined as a “project” and is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et. seq.). Accordingly, the City has prepared this environmental impact report (EIR) to assess the long-range and cumulative environmental consequences that could result from adoption and implementation of the proposed project.. This report has been prepared in accordance with the CEQA Statutes and Guidelines and with the City’s local rules and procedures for implementing CEQA. It was prepared by professional planning consultants under contract to the City. The City is the Lead Agency for the preparation of this EIR, as defined by CEQA (Public Resources Code, Section 21067, as amended), because it has primary discretionary authority with respect to adoption, amendment, and implementation of the proposed GPTZCU. The content of this document reflects the independent judgment of the City.

CEQA was originally enacted in 1970 and has been amended since. The legislative intent of these regulations is established in Section 21000 of the California Public Resources Code, as follows:

The Legislature finds and declares as follows:

- (a) The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.
- (b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
- (c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
- (d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the State take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
- (e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
- (f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.

(g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the State to:

- h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
- i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
- j) Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.
- k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
- l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
- m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
- n) Require governmental agencies at all levels to consider qualitative factors and economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs, and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in Section 21002, quoted below:

“The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event-specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.”

## **1.2 – Purpose and Scope**

The proposed General Plan and Targeted Zoning Code Update is a long-range planning program to guide the growth and development of the City’s Planning Area. It is intended to communicate the City’s vision of its future and to establish a policy framework to govern decision-making concerning the physical development of the community, including assurances

that the community at large will be supported by an adequate range of public services and infrastructure systems. The City's GPTZCU analyzed in this EIR has been tailored to address revised development and land use policy direction, reflect current vision regarding housing, circulation, and mobility improvements, and to comply with current State law.

Although it will allow for an overall increase in development potential for the entire Planning Area, the GPTZCU would not, by itself, authorize any specific development project or other forms of land use approval or any kind of public facilities or capital facilities expenditures or improvements. As such, a Program EIR is the appropriate type of document to identify the geographic extent of sensitive resources and hazards, along with existing and planned services and infrastructure support systems that occur in the Planning Area. Further, the Program EIR is described in Section 15168 of the CEQA Guidelines as the appropriate analytical framework to assess the cumulative environmental effects of the full plan, in a first-tier level of analysis, to identify broad concerns and sets of impacts, and to define/develop regulatory standards and programmatic procedures that reduce impacts and help achieve environmental goals and objectives. This EIR also provide site-specific evaluations of four opportunity sites .

Later activities proposed pursuant to the goals and policies of the updated General Plan will be reviewed in light of this EIR and may focus on those site-specific and localized environmental issues that could not be examined in sufficient detail as part of this EIR. Advantages of a Program EIR for the GPTZCU include consideration of effects and alternatives that cannot practically be reviewed at the project level, consideration of cumulative impacts that may not be apparent on a project-by-project basis, the ability to enact citywide mitigation measures, and subsequent reduction in paperwork.

### **Organization of the Draft Program EIR**

The Draft Program EIR (DEIR or Draft EIR) contains the primary analysis of potential environmental impacts discussed in the following six sections described below

Section 1.0	Introduction.
Section 2.0	Executive Summary: A brief discussion of the project and summary of project impacts, mitigation measures, and alternatives.
Section 3.0	Project Description: Provides a detailed description of the proposed project and the Environmental Setting/Existing Conditions and project objectives.
Section 4.0	Environmental Impact Analysis: Evaluates impacts of the GPTZCU at a program level and site-impacts of the four opportunity sites., and identifies mitigation measures designed to reduce significant impacts, where applicable. This Section includes 20 chapters, each addressing different topical areas (Air Quality, Noise, etc.).
Section 5.0	Alternatives: Provides an analysis of three different alternatives to the proposed project.
Section 6.0	Mandatory CEQA Sections: Provides an analysis of growth-inducing impacts, significant unavoidable environmental impacts, and irreversible environmental change.



The appendices include:

- Appendix A: Notice of Preparation (NOP), including comment letters received on the NOP and the NOP distribution list
- Appendix B: List of General Plan Update Goals and Policies
- Appendix C: Existing Conditions Report
- Appendix D: Air Quality, Energy and Greenhouse Gas Analysis Technical Studies
- Appendix E: Noise Analysis Technical Studies
- Appendix F: Transportation Impact Analysis

In compliance with Public Resources Code Section 21081.6, a mitigation monitoring and reporting program (MMRP) will be prepared as a separately bound document that will be adopted in conjunction with the certification of the Final EIR. The MMRP, responses to public comments on the Draft EIR, and any revisions to the Draft EIR will be identified in the Final EIR.

### **Approach to EIR Analysis**

The approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the General Plan Update. Each environmental issue is analyzed in a similar manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the proposed GPTZCU's potential impacts on the environment. Thresholds of significance are based on a broad list of questions and impact topics set forth in Appendix G of the State CEQA Guidelines.

The impact analysis provided for each of the 20 topical areas examines the broad, long-term environmental effects resulting from the implementation of the goals and policies contained in each of the updated General Plan elements. The assessment of impacts focuses on how the impact in question could occur and whether the goals, policies, or some other aspect of the proposed Plan would reduce or eliminate such impacts. The presence of sensitive environmental resources, hazards in specific areas, and the broad implications of the General Plan throughout the Planning Area are considered in the determination of impact significance. If the analysis indicates that a significant impact could occur, even with the benefits of any proposed goals or policies, mitigation measures are specified.

## **1.3 – Scoping and Public Review**

### **Notice of Preparation**

To define the scope of the investigation of the Program EIR, the City of Santa Fe Springs distributed a Notice of Preparation (NOP) to local, county, state, and federal agencies along with interested private organizations and individuals. The NOP was delivered to the State Clearinghouse and the CEQA-required 30-day review period began on May 17, 2021, and ended on June 15, 2021. The purpose of the NOP is to provide agencies and private entities an opportunity to identify concerns regarding potential impacts of the proposed project, recommend items to be analyzed in the DEIR, and to provide suggestions concerning ways to avoid significant impacts (Section 15082, CEQA Guidelines). The NOP is included in Appendix A,

along with copies of written comments received during the 30-day public review period for the NOP and the NOP distribution list.

On June 9, 2021, the City conducted a virtual scoping meeting on the NOP and issues to be addressed in the EIR. The written comments received on the NOP during the 30-day review period are summarized in Table 1.1 and comments received during the scoping meeting are included in Table 1.2. The comment letters are also included in Appendix A.

**Table 1-1**  
**Brief Summary of Comments on the NOP**

<b>Commenting Agency/Person</b>	<b>Brief Summary of Comments on the NOP</b>	<b>Section(s) Where Addressed</b>
Los Angeles County Metropolitan Transportation Authority (6-15-21)	The commenter recommended including an updated inventory of existing and planned transit service provided by Metro and any other transit operators serving the City. Reference documents that should be used include Metro's 2020 Long Range Transportation Plan, 2021 NextGen Bus Plan, Measure M Expenditure Plan, and Measure M Guidelines. The Plan should include policies to enhance access and use of public transit.	Transportation (4.17)
California Department of Fish and Wildlife (6-7-21)	The letter addressed a number of general issues related to sensitive species and habitat types, including nesting birds, wildlife corridors, Sensitive Ecological Areas (SEA's), coastal California gnatcatcher, bats, jurisdictional waters, impact analysis methodologies, and raptor habitat.	Biological Resources (4.4)
South Coast Air Quality Management District (6-15-21)	The letter provides input as to how the air quality and greenhouse gas analyses should be conducted in accordance with SCAQMD guidelines and includes reference to several information sources. The letter also provides information on potential mitigation measures.	Air Quality (4.3), Greenhouse Gas Emissions (4.8)
Los Angeles County Fire Department (6-9-21)	The County provided information on its concerns regarding access and water requirements for future development, Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance.	Wildfire (4.20), Public Services (fire)(4.15), Hazards and Hazardous Materials (wildfire)(4.9), Biological Resources (oaks)(4.4), Cultural Resources (4.5)
Los Angeles County Sanitation Districts (6-15-21)	This comment letter describes the Districts' roles and responsibilities with respect to sewage, identifies the capacity of existing facilities, and provides other information regarding service fees and sewage treatment demand factors for various land uses.	Utilities and Services (4.19)
California Dept. of Transportation, District 7 (6/1/21)	This comment letter indicates that the GPTZCU is not expected to result in a direct adverse impact to the existing State transportation facilities. It also	Transportation (4.17)

	recommends, to accommodate the additional housing units and not induce demand for excessive Vehicle Miles Travelled (VMT), that parking requirements be significantly reduced or eliminated. It also recommends the implementation of a TDM ordinance, as an alternative to requiring car parking.	
City of Cerritos (6-10-21)	Concerns expressed about the air quality impacts of changes in industrial uses in the south end of the City adjacent to residential uses in Cerritos	Air Quality (4.3)
Gabrieleno Band of Mission Indians, Kizh Nation (5/20/21 and 5/24/21)	These emails indicated that since no ground-disturbing activity would occur as a direct result of this project, the Band had no comments at this time.	Cultural Resources (4.5), Tribal Cultural Resources (4.5)

**Table 1.2**  
**Summary of Scoping Meeting Comments**

<b>Commenting Agency/Person</b>	<b>Summary of Comments</b>	<b>Section(s) Where Addressed</b>
Beth Chow, City of Norwalk	Since it is adjacent to Santa Fe Springs, Norwalk is concerned about increased traffic and congestion, especially at Bloomfield/Imperial which Caltrans considers a “hot spot” in terms of congestion.	Traffic / Transportation (4.17)
Lilliana Garcia, City resident	Indicated concern regarding air pollutants from trains and cars waiting for at-grade train crossings.	Air Quality (4.3)

### Public Review of Draft EIR

Comments from all agencies and individuals are invited regarding the information contained in the Draft Program EIR. Such comments should explain any perceived deficiencies in the assessment of impacts or provide the information that is purportedly lacking in the Draft Program EIR or indicate where the information may be found.

All comments on the Draft Program EIR are to be submitted, by the close of the 45-day public review period to:

**Cuong Nguyen, Senior Planner**  
City of Santa Fe Springs Planning Department  
11710 Telegraph Road, Santa Fe Springs, CA 90670  
cuongnguyen@santafesprings.org  
(562) 868-0511, Ext 7359

Following the 45-day period of circulation and public review of the Draft Program EIR, all comments and the City’s responses to the comments will be incorporated into a Final Program EIR prior to certification of the document by the City of Santa Fe Springs.

### Availability of EIR Materials

All materials related to the preparation of this Program EIR, including information incorporated by reference, are available for public review. The Notice of Preparation and the Draft Program EIR are posted on the City’s website:

[http://www.santafesprings.org/cityhall/planning/planning/environmental\\_documents.asp](http://www.santafesprings.org/cityhall/planning/planning/environmental_documents.asp)

To request an appointment to review these materials, please contact Cuong Nguyen (see contact information above).

#### **1.4 – Native American Consultation**

On February 17, 2021, the City sent notices to the following nine (9) Native American Tribes/Tribal Representatives to determine if they wished to consult with the City regarding the GPTZCU:

##### **Native American Tribal Group**

Gabrieleno Band of Mission Indians - Kizh Nation  
Gabrieleno/Tongva San Gabriel Band of Mission Indians  
Gabrielino /Tongva Nation  
Gabrielino Tongva Indians of California Tribal Council  
Gabrielino-Tongva Tribe  
Juaneno Band of Mission Indians - Acjachemen Nation  
Santa Rosa Band of Cahuilla Indians  
Soboba Band of Luiseno Indians  
Soboba Band of Luiseno Indians

##### **Tribal Representative**

Andrew Salas, Chairperson  
Anthony Morales, Chairperson  
Sandonne Goad, Chairperson  
Robert Dorame, Chairperson  
Charles Alvarez  
Matias Belardes, Chairperson  
Lovina Redner, Tribal Chair  
Scott Cozart, Chairperson  
Joe Ontiveros

As of publication of this Draft EIR, the 30-day AB 52 and the 90-day SB 18 consultation periods had expired and only the Gabrieleno Band of Mission Indians - Kizh Nation initially indicated a desire to consult with the City on the GPTZCU. However, upon learning there was no specific ground disturbance proposed, Ms. Brandy Salas with that tribe indicated in an email to Ms. Anh Wood with the City, dated May 11, 2021, that they no longer needed to consult regarding the GPTZCU but would want to consult with the City on any future actions that did result in ground disturbance.

#### **1.5 – Citation**

Preparation of this Program EIR and the General Plan and Targeted Zoning Code Update rely on information from many sources, including the appendix materials previously listed and numerous other references. Pursuant to Section 15148 of the State CEQA Guidelines, citations from the appendix materials and other sources are provided throughout the EIR. Citations are numbered sequentially and inclusive to each environmental impact topic (Sections 4.1 through 4.20). References are located at the end of each section of this DEIR.

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## 2 – Executive Summary

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This chapter provides a summary description for the City of Santa Fe Springs General Plan and Targeted Zoning Code Update ("GPTZCU" or "Project"), a list of associated environmental issues to be resolved, a summary of significant impacts and mitigation measures associated with the Project, and a summary of feasible alternatives to the Project, including identification of the environmentally superior alternative.

### 2.1 Project Location

Santa Fe Springs is located in southeast Los Angeles County, along the Interstate 5 corridor. The City is bordered by the cities of Downey, Pico Rivera, Whittier, La Mirada, Cerritos, and Norwalk. Adjacent unincorporated areas within the jurisdiction of Los Angeles County include Los Nietos, West Whittier, and South Whittier. Santa Fe Springs is strategically located with access to major transportation corridors, including the Interstate 605 (I-605) and Interstate 5 (I-5) freeways. Santa Fe Springs is 14 miles south of downtown Los Angeles and 32 miles north of downtown Santa Ana in Orange County via the I-5 freeway. Santa Fe Springs is also traversed by the Union Pacific and BNSF Railway rail corridors. The regional context of Santa Fe Springs is shown in Exhibit 3-1 of the Project Description (See Chapter 3). Exhibit 3-2 provides a more detailed view of the Planning Area, including City boundaries and Sphere of Influence areas.

### 2.2 Project Description

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 2-1 (identical to Table 3-2 in the Project Description) compares existing 2020 conditions with the projected growth for the 2040 horizon year and includes the City of Santa Fe Springs and its Sphere of Influence (Planning Area). The 2040 planning horizon for the Planning Area is estimated to result in increases of approximately 4,572 dwelling units, 364,000 square feet of office space, 383,500 square feet of industrial space, and a reduction of 80,000 square feet of commercial space. An estimated increase of approximately 13,890 residents and 4,788 jobs is also projected for the 2040 horizon year.

Table 2-1 compares existing land uses as of 2020 with future build out conditions in 2040 for the City of Santa Fe Springs, the Sphere of Influence, and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated at approximately 16,724 dwelling units, 60,808 residents, 79,573,800 building square feet of non-residential uses, and 60,858 jobs.

**Table 2-1  
General Plan Update: Comparison of 2020 and 2040**

Development Indicators	Existing Conditions (2020)			Future Buildout Conditions (2040)		
	City	SOI	Total	City	SOI	Total
Dwelling Units	5,513	6,639	12,152	9,421	7,303	16,724
Population	18,292	28,626	46,918	30,351	30,457	60,808
Non-Residential Square Feet	76,790,900	1,293,600	78,084,500	78,273,600	1,300,200	79,573,800
Commercial	3,922,700	382,400	4,305,100	3,841,900	382,400	4,224,300
Office	3,203,800	30,900	3,234,700	3,564,200	34,500	3,598,700
Hotels/Motels (SF)	140,000	26,500	166,500	553,900	26,500	580,400
Rooms	150	120	270	900	120	1,020
Industrial	67,743,600	92,500	67,836,100	68,537,100	92,500	68,219,600
Public Facilities/ Institutional	1,780,800	761,300	2,542,100	1,776,600	761,300	2,537,900
Employees	54,716	1,354	56,070	59,321	1,536	60,858
Students	5,446	4,049	9,495	6,638	4,914	11,552

**Source:** City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.

### 2.3 General Plan Elements

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. The City of Santa Fe Springs General Plan update succeeds the last comprehensive general plan adopted in 1993 and 1994. The General Plan Update incorporates statutory requirements for general plans and guidance provided in the 2017 General Plan Guidelines; coordinates future development and policies with regional planning efforts and serves as the city's fundamental guide in developing strategies to address greenhouse gas reduction, climate change, and climate planning.

The EIR incorporates the goals, policies, and objectives of the following Elements from the updated General Plan:

- Land Use Element
- Circulation Element
- Housing Element (2021-2029)
- Open Space and Conservation Element
- Noise Element
- Safety Element
- Environmental Justice Element
- Economic Development Element

These goals, objectives, and policies are intended to maintain various potential environmental effects of the GPTZCU at levels that are less than significant and are considered when evaluating the potential environmental impacts of implementing the General Plan. Sections 4.1 through 4.20 list goals, policies, and objectives from the General Plan relative to the specific environmental issue being evaluated. The Housing Element is updated for the 6<sup>th</sup> cycle and planned developments identified in the Land Use Element accommodates the Regional Housing Needs Allocation goal of 952 housing units, which represents a 17.3% increase from the existing number of housing units.

The GPTZCU also includes Amendments to Chapter 155 (Zoning) of the Santa Fe Springs Municipal Code (Zoning Map and Zoning Text Amendments) to implement the Land Use Element's Land Use Plan.

## **2.4 Key Opportunity Sites**

In addition to the General Plan and Zoning updates, four Key Opportunity Sites are included in the EIR evaluation. The following describes the possible scenarios for development that could be built within each site.

### **a. Washington Boulevard/Norwalk Boulevard Transit-Oriented Development (TOD)**

This site is located within the triangular blocks between Washington Boulevard, Norwalk Boulevard, and Broadway Avenue bordering the City of Santa Fe Springs and the Los Angeles County unincorporated area of West Whittier-Los Nietos. The area, on the southside of Washington Boulevard, consists of older vehicle-oriented commercial properties and restaurants. A planned Metro Eastside Transit Corridor Phase 2 light rail station (Metro L line) is planned for this segment of Washington Boulevard. The line will connect the current terminus in East Los Angeles to the City of Whittier at Lambert Avenue. The proposed Washington Boulevard Avenue/Norwalk Boulevard Transit-Oriented Development project would allow construction of up to 422 residential units and 38,300 square feet of non-residential building area within multiple buildings with a maximum height of six stories. The ground floor would include pedestrian-oriented commercial uses, such as retail and restaurants, and residential lobbies where residents and guests can access the residences on the upper floors. The project would also include ground floor open space, including a public plaza with seating, landscaping, outdoor dining, and widened sidewalks.

### **b. Metrolink Transit-Oriented Development (TOD)**

This site is located at the northeast corner of Imperial Highway and Bloomfield Avenue bordering the City of Norwalk and across the street from the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station. The project would replace existing commercial, business park, and industrial properties. The proposed Metrolink Transit-Oriented Development project would allow construction of up to 582 residential units and 70,400 square feet of non-residential building area within multiple buildings with a maximum height of six stories. The ground floor would include pedestrian-oriented commercial uses, such as retail and restaurants, and as residential lobbies where residents and guests can access the residences on the upper floors. The project would also include ground floor open space, including a public plaza with seating, landscaping, and widened sidewalks.

### **c. MC&C Site**

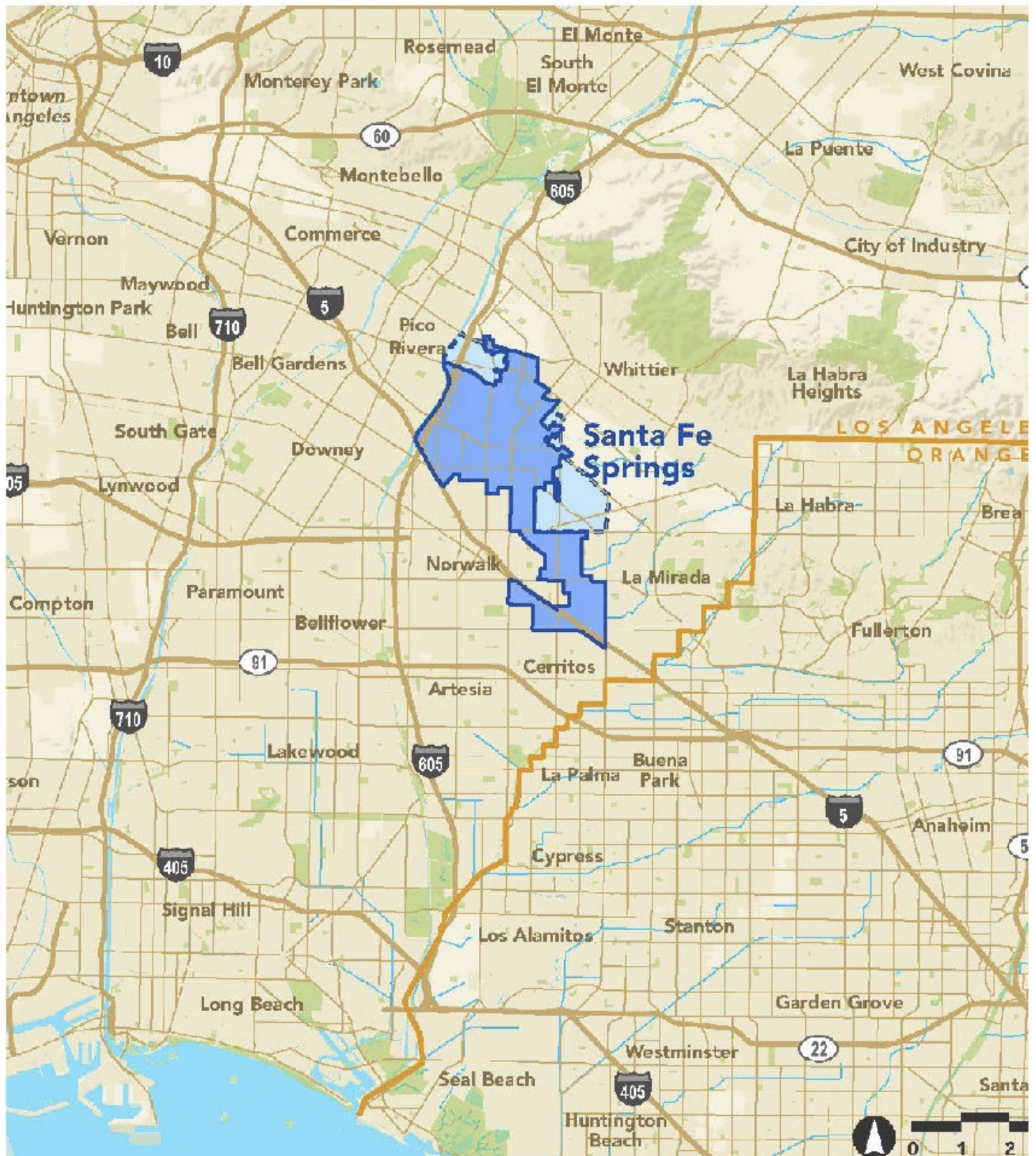
This site is located at the southeast corner of Telegraph Road and Bloomfield Avenue on vacant properties that include active, plugged, idle, and abandoned oil wells and associated pipelines. The proposed MC&C Site project would allow construction of up to 306 residential units and



55,500 square feet of non-residential building area within multiple buildings with a maximum height of four stories. Along Telegraph Road, the ground floor would include commercial uses, such as retail and restaurants and the upper floors will include residential units. Along Bloomfield Avenue, development would allow standalone residential development and live-work units directly fronting the street. Several oil wells will remain active and will continue to have access for maintenance, but will also be buffered from residential and commercial buildings with walls, fences, berms, etc. as appropriate.

**d. Koontz Site**

This site is located between Lakeland Road, Norwalk Boulevard, Fulton Wells Avenue, and Florence Avenue. The project would replace existing industrial properties with up to 156 residential units and 110,500 square feet of commercial or business park development within multiple one- to three-story buildings in height. Residential development will consist of tuck-under residential building types at three stories in height. Commercial development will consist of a neighborhood shopping center with retail, commercial services, and restaurants located at the property on the southwest corner of Florence Avenue and Norwalk Boulevard. The shopping center will include multiple retail pads and an anchor store with a maximum height limit of 25 feet. The commercial use could also be a business park depending on market conditions.



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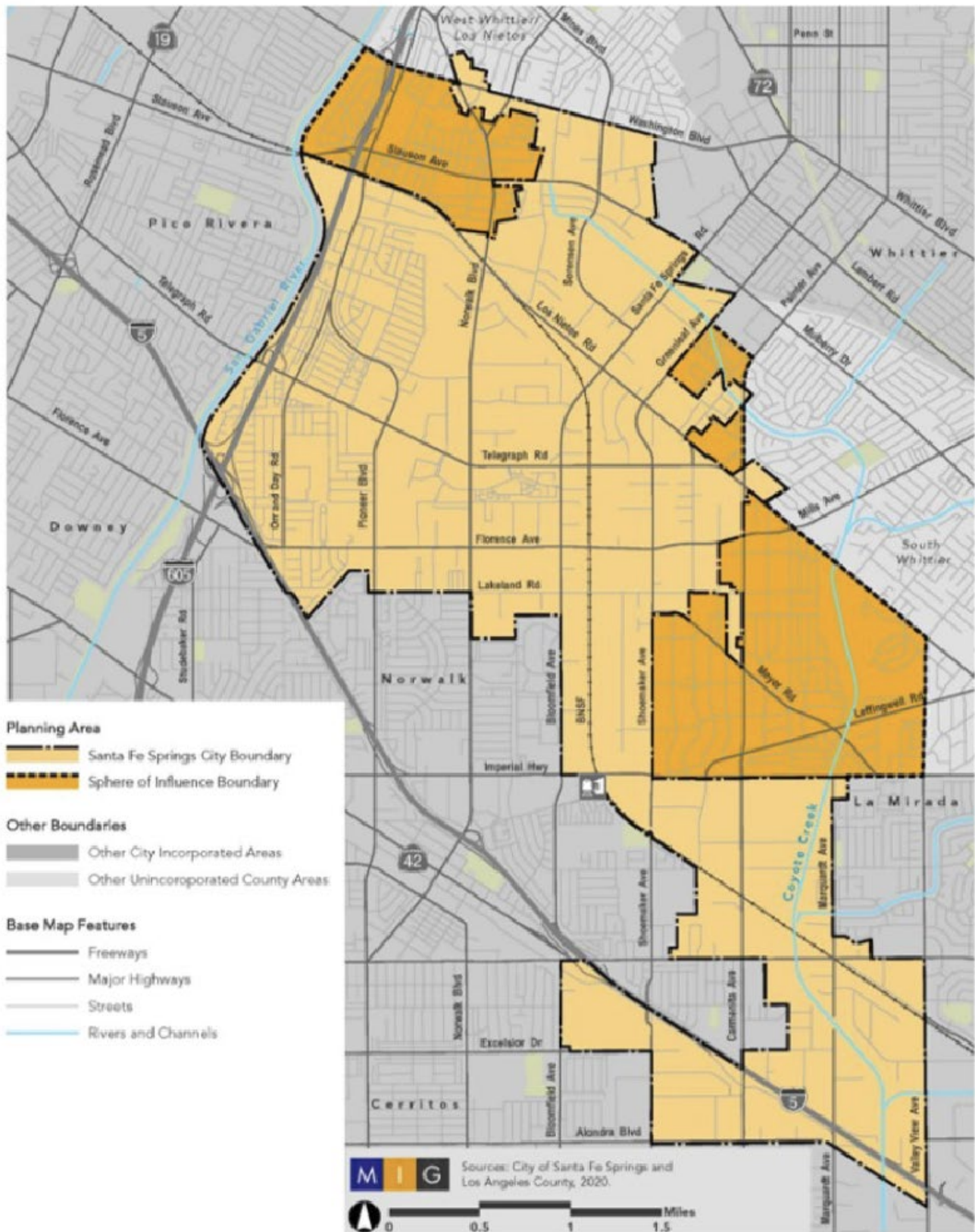
## Exhibit 2-1 Vicinity Map

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

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## Exhibit 2-2 Planning Area

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

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## 2.5 Approach to EIR Analysis

The approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the General Plan Update. Each environmental issue is analyzed in a similar manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the proposed GPTZCU's potential impacts on the environment. Thresholds of significance are based on a broad list of questions and impact topics set forth in Appendix G of the State CEQA Guidelines.

The impact analysis provided for each of the 20 topical areas examines the broad, long-term environmental effects resulting from implementation of the goals and policies contained in each of the updated General Plan elements. The assessment of impacts focuses on how the impact in question could occur and whether the goals, policies or some other aspect of the proposed Plan would reduce or ameliorate such impacts. The presence of sensitive environmental resources, hazards in specific areas, and the broad implications of the General Plan throughout the Planning Area are considered in the determination of impact significance. If the analysis indicates that a significant impact could occur, even with the benefits of any proposed goals or policies, mitigation measures are specified.

## 2.6 Summary of Significant Impacts and Mitigation Measures

For each of the environmental topics listed above, any "*significant*" Project or cumulative impact and associated mitigation measure(s) identified in this EIR are summarized in Table 2-1, Summary of Potentially Significant Impacts and Recommended Mitigation Measures, which follows at the end of this chapter. The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 4.1 through 4.20 of this Draft EIR. The chart is arranged in four columns: (1) identified impacts, (2) potential significance without mitigation, (3) mitigation measure(s), and (4) the level of impact significance after implementation of the mitigation measure(s). Because the table does not list impacts that are less than significant with no mitigation required, the Impact/Mitigation Measure numbering may be out of sequence.

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**TABLE 2.2**  
**SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS AND RECOMMENDED MITIGATION MEASURES**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>AIR QUALITY</b>			
<p><b>Impact AQ-1 – Would the GPTZCU conflict with or obstruct implementation of the applicable air quality plan?</b></p> <p>Since the projected population growth under the Project's 2040 time horizon exceeds the 2016 RTP/SCS growth forecasts used to prepare the 2016 South Coast Air Quality Management Plan, the Project could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards in the Basin. This is considered a <b>potentially significant impact</b>.</p>	Significant	<p><b>See Mitigation Measures AQ-2A through AQ-2E under Impact AQ-2 below.</b></p>	Significant and Unavoidable
<p><b>Impact AQ-2 – Would the GPTZCU result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard?</b></p> <p>Due to the built-out nature of the Project Area, construction emissions are speculative with respect to the timing and magnitude of demolition, site preparation, grading, building construction, paving and painting activities that would occur over time. Fugitive dust (PM10) emissions would be greatest during building demolition, site preparation, and grading, due to the disturbances of soil and transport of material and NOx emission would result from the combustion of diesel fuels used to power off road heavy-duty pieces of equipment (e.g. backhoes, bulldozers, excavators, etc). Reactive</p>	Significant	<p><b>Mitigation Measure AQ-2A: Require a Project-level Air Quality Assessment for Conditional Uses and New Discretionary Development Projects</b></p> <p>Applicants shall submit a quantitative project-level criteria air pollutant and toxic air contaminant emissions analysis for conditional use and new discretionary development projects. The project-level assessment shall address both construction and operational emissions. The estimated criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the South Coast Air Quality Management District (SCAQMD) and, if emissions are shown to be above SCAQMD thresholds, the City shall require the implementation of mitigations to reduce emissions. The project-level assessment, and identification of necessary mitigation, shall be prepared prior to discretionary project approval. Mitigation measures to reduce emissions could include, but are not limited to:</p>	Significant and Unavoidable



<p>Organic Gas or Volatile Organic Compound (VOC) emissions would generally be greatest during architectural activities. The types and quantity of equipment, and duration of construction activities, would be dependent on project-specific conditions.</p> <p>Despite the unknowns, it is plausible that one or more projects developed under implementation of the proposed GPTZCU could exceed one or more of the SCAQMD's construction criteria air pollutant thresholds of significance and the impact could <b>potentially significant and requires mitigation</b>.</p> <p>As shown in Table 4.3-7 of Chapter 4.3 Air Quality), the maximum daily operational emissions associated with the 2040 growth under the Project would result in ROG and oxides of nitrogen (NOx) emissions that exceed SCAQMD-recommended significance thresholds. This is considered a <b>potentially significant impact</b>.</p>		<ul style="list-style-type: none"> <li>• Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);</li> <li>• Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particulate Filter);</li> <li>• Minimizing the idling time of diesel-powered construction equipment to two minutes; and</li> <li>• Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD Rule 1113 "Low-VOC" or "Super-Compliant" requirements).</li> </ul> <p><b>Mitigation Measure AQ-2B: Prohibit the Installation of Natural Gas Hearths in New Residential Development</b></p> <p>The City shall prohibit the installation of new natural gas hearths/fireplaces in new residential development. Natural gas hearths/fireplaces may be incorporated into remodels / redevelopment if the existing structure(s) proposed for remodel / redevelopment featured natural gas hearths/fireplaces; however, the number of natural gas hearths/fireplaces provided by the new structure(s) may not exceed that present prior to the remodel / redevelopment and must meet the most recent U.S. EPA, CARB, and/or SCAQMD emissions standards in effect at the time of building permit issuance.</p>	
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		<p><b>Mitigation Measure AQ-2C: Residential Electric Vehicle and Bicycle Parking Requirements</b></p> <p>The following Residential and Non-Residential Voluntary Measures from the CalGreen Code (Appendix A4) shall apply and be required for new residential (or residential mixed-use) development projects located in the City:</p> <ul style="list-style-type: none"> <li>• New one and two-family dwellings and townhomes shall include electric vehicle infrastructure consistent with Section A4.106.8.1 of the CalGreen Code.</li> <li>• New multi-family dwellings with 17 or more units shall provide electric vehicle charging spaces capable of supporting electric vehicle supply equipment pursuant to Section A4.106.8.2.</li> <li>• New multi-family dwelling units shall provide bicycle parking pursuant to Section A4.106.9.2.</li> </ul> <p><b>Mitigation Measure AQ-2D: Non-Residential Electric Vehicle and Bicycle Parking Requirements</b></p> <p>The following Non-Residential Voluntary Measures from the CalGreen Code (Appendix A5) shall apply and be required for new non-residential (or mixed-use) development projects located in the City:</p> <ul style="list-style-type: none"> <li>• New non-residential development with more than 10 tenants-occupants shall provide changing/shower facilities for tenant-occupants in accordance with Table A5.106.4.3 of the CalGreen code.</li> <li>• New non-residential development shall provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles pursuant to the Tier 1 requirements of Table A5.106.5.1.1 of the CalGreen code. Such parking spaces shall be marked pursuant to Section A5.106.5.1.3 of the CalGreen code.</li> </ul>	
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		<ul style="list-style-type: none"> <li>• New non-residential development shall provide electric vehicle charging spaces capable of supporting electric vehicle supply equipment pursuant to the Tier 1 requirements of Section A5.106.5.3.1 of the CalGreen code. Such spaces shall be marked pursuant to Section A5.106.5.3.3 of the CalGreen code.</li> </ul> <p><b>Mitigation Measure AQ-2E: Transportation Demand Management</b></p> <p>The City shall require all new residential and non-residential development that meets the following criteria incorporate measures to meet vehicle trip generation rates that are twenty percent lower than the standard rates as established in the most recent edition of the Institute of Transportation Engineers (ITE) trip generation manual:</p> <ul style="list-style-type: none"> <li>• New multi-unit development of ten units or more;</li> <li>• New non-residential development of ten thousand square feet or more;</li> <li>• Additions to non-residential buildings that are ten thousand square feet or more in size or that expand existing gross floor area by ten percent or more; and</li> <li>• Establishment of a new use, change of use, or change in operational characteristics in a building that is ten thousand square feet or more in size or that results in an average daily trip increase of more than ten percent of the current use, based on the most recent Institute of Traffic Engineers (ITE) trip generation rates.</li> </ul>	
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<p><b>Impact AQ-3 – Would the GPTZCU expose sensitive receptors to substantial pollutant concentrations?</b></p> <p>Construction emissions associated with future development activities facilitated under implementation of the proposed GPTZCU could exceed SCAQMD construction LSTs and cancerogenic and non-cancerogenic threshold maintained and recommended by the SCAQMD. This is considered a <b>potentially significant impact</b>.</p>	Significant	<b>See Mitigation Measure AQ-2A, Above</b>	Significant and Unavoidable  (Construction Emissions Only)
<p><b>Would the GPTZCU cause substantial adverse cumulative impacts with respect to Air Quality?</b></p> <p>The Project's 2040 growth and associated construction and operational emissions may not be consistent with the planning assumptions and emissions levels which exceed SCAQMD-recommended CEQA thresholds of significance. This is a <b>potentially significant impact</b>.</p>	Significant	<b>See Mitigation Measure AQ-2A through AQ-2E, Above</b>	Significant and Unavoidable
<b>GREENHOUSE GAS EMISSIONS</b>			
<p><b>Impact GHG-1 – Would the GPTZCU generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?</b></p> <p>As shown in Table 4.8-4, the GPTZCU's 2040</p>	Significant	<p>See Mitigation Measures AQ-2B, AQ-2C, AQ-2D, and AQ-2E.</p> <p><b>Mitigation Measure GHG-1A:</b> Within two years of the adoption of the GPTZCU, the City shall consider and evaluate the feasibility of adopting an ordinance that</p>	Significant and Unavoidable

<p>growth projection would result in GHG emissions that exceed the adjusted SCAQMD derived plan-efficiency metric. This is considered a <b>potentially significant impact</b>.</p>		<p>amends the City's Municipal Code to require all new residential and/or non-residential development subject to Title 24, Part 6 of the California Building Code to achieve Zero Net Energy (ZNE) standards. If the City finds ZNE technology, programs, and/or other strategies are feasible and cost-effective, the City shall adopt a ZNE ordinance as expeditiously as possible given City resources. As defined by the California Energy Commission (CEC), ZNE standards require the value of the net energy produced by project renewable energy resources equals the value of the energy consumed annually by the project, using the CEC's Time Dependent Valuation (CEC, 2015).</p> <p><b>Mitigation Measure GHG-1B: Consider the Preparation and Adoption of a Climate Action Plan.</b> To implement General Plan Policy OSC-4.3, the City of Santa Fe Springs shall consider preparing and adopting a Climate Action Plan (CAP) within two years of adoption of the GPTZCU that:</p> <ol style="list-style-type: none"> <li>1) Establishes a community-wide greenhouse gas emissions inventory for a single, historic calendar year (e.g., the current year for which the CAP is being prepared).</li> <li>2) Quantifies greenhouse gas emissions, both existing and proposed over a specified time period. The time period forecasted shall be no less than the Year 2040. Additional, forecasted years (e.g., 2030, 2035, etc.) may be included.</li> <li>3) Identifies annual, community-wide greenhouse gas emission reduction targets (i.e., in MTCO<sub>2</sub>e) and/or efficiency targets (i.e., in MTCO<sub>2</sub>e per service population and/or capita) that align the City's emissions with legislatively adopted state-wide greenhouse gas reduction targets (e.g., AB 32 and SB 32) for a specified calendar year. For a calendar year beyond that which has a legislatively adopted greenhouse gas reduction target, the greenhouse gas emissions reduction</li> </ol>	
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		<p>goal for 2050 outlined in EO S-3-05 shall be used as a future benchmark. The identified annual, community-wide greenhouse gas emissions target for the City may be an interpolated value based on legislatively adopted state-wide greenhouse gas reduction targets and those issued by Executive Order.</p> <ol style="list-style-type: none"> <li>4) Specifies measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified annual, community-wide greenhouse gas emission reduction targets and/or efficiency targets.</li> <li>5) Establishes a mechanism to monitor the plan's progress toward achieving its community-wide greenhouse gas emission reduction targets and/or efficiency targets, and requires amendment if the CAP is not achieving specified levels.</li> <li>6) Be adopted in a public process following environmental review.</li> </ol> <p><b>Mitigation Measure : Require a Project-level Greenhouse Gas Emissions Assessment for New Discretionary Development Projects.</b></p> <p>Applicants shall submit a project-level greenhouse gas (GHG) emissions analysis for discretionary development projects. The GHG emissions analysis shall evaluate the project's consistency with adopted state-wide GHG emissions reduction goals, such as Senate Bill 32, EO S-3-05, or interpolated GHG emission reduction goal for 2040 that is based on state-wide GHG emissions reduction goals (e.g., an interpolated SCAQMD efficiency metric of 2.6 MTCO<sub>2</sub>e/yr/SP). If the project's GHG emissions are found to be inconsistent with state-wide GHG emission reduction goals, mitigation shall be identified and implemented to reduce emissions. The</p>	
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		<p>project-level GHG emissions analysis shall fully address the project's GHG emissions impacts using the checklist questions contained in the CEQA Guidelines Appendix G, Item VIII, Greenhouse Gas Emissions. Mitigation measures to reduce emissions could include, but are not limited to:</p> <ul style="list-style-type: none"> <li>● Increasing the energy efficiency of the proposed building(s) (e.g., identifying building practices that go beyond CalGreen Code standards, identifying specific energy efficient appliances, etc.);</li> <li>● Incorporating on-site renewable energy generation into project-design;</li> <li>● Reducing the quantity of parking provided by the proposed development; and</li> <li>● Reducing indoor and outdoor potable water consumption.</li> </ul> <p><u>Key Opportunity Sites:</u></p> <p>See Mitigation Measures AQ-2B, AQ-2C, AQ-2D, AQ-2E, GHG-1A, GHG-1B, and GHG-1C.</p>	
<p><b>Impact GHG-2 – Would the GPTZCU conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</b></p> <p>As shown in Table 4.8-6, the Project growth could result in GHG emissions that exceed the 2017 Climate Change Scoping Plan's recommended efficiency metrics. In addition, the Project has the potential to result in growth which is approximately 2.5 times more than the assumed growth in the 2020 RTP/SCS. This is considered a <b>potentially significant impact</b>.</p>	Significant	<p><b>See Mitigation Measures AQ-2B, through AQ-2E, GHG-1A and GHG-1B, and GHG-1C.</b></p>	Significant and Unavoidable

<p><b>Would the GPTZCU cause substantial adverse cumulative impacts with respect to greenhouse gases?</b></p> <p>The Project's 2040 growth projection and associated GHG emissions could exceed the significance threshold applied in this EIR and pose a conflict with the 2017 Climate Change Scoping Plan of the California Air Resources Board. This is considered a <b>potentially significant impact</b>.</p>	Significant	<b>See Mitigation Measures AQ-2, GHG-1, GHG-2, and Mitigation Measures VMT-1, and VMT-2, which are shown below.</b>	Significant and Unavoidable
<b>HYDROLOGY AND WATER QUALITY</b>			
<p><b>Impact HYD-2 – Would the GPTZCU substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?</b></p> <p>The GPTZCU will substantially increase the projected population in the City over those projected in the 2020 Urban Water Management Plan which must be updated every five years and will need to be updated to account for the growth represented by future land uses under the GPTZCU. This is considered a <b>potentially significant impact</b>.</p>	Significant	<b>Mitigation Measure UTL-1 Water Demand Management:</b> New developments under the GPTZCU that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plans for the involved local water providers.	Less than Significant
<b>TRANSPORTATION</b>			
<p><b>Impact TRANS-2 – Would the GPTZCU conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)? [regarding VMT]</b></p> <p>At this time, the City of Santa Fe Springs cannot demonstrate that VMT will be reduced to the degree that it meets State goals related to VMT reduction. The feasibility and effectiveness of VMT mitigation measures such</p>	Significant		Significant and Unavoidable  Increased VMT



## 2 – Summary

<p>as a local or regional VMT bank or exchange is unknown at this time.</p> <p>The findings for the Project indicate that the Project is beneficial for VMT efficiency and is expected to produce VMT at a rate that would not result in a significant impact (as discussed above the model is not sensitive to many of the factors identified that affect VMT per person). CARB data indicates the trend of VMT growth across the state is going up when the regional models predict that it should be decreasing. This trend highlights the current uncertainty of the model in predicting VMT. However, for the purposes of this EIR, VMT impacts are considered <b>significant and unavoidable</b>.</p>			
<p><b>Impact TRANS-4-Would the project cause substantial adverse cumulative impacts with respect to transportation and traffic?</b></p> <p>Future development under the GPTZCU will add housing which could contribute additional traffic on local and regional networks as well as hinder compliance with the state and regional VMT reduction goals outlined in SCAG's RTP/SCS. The GPTZCU could have <b>potentially significant</b> VMT impacts and mitigation is required.</p>	Significant		<p>Significant and Unavoidable</p> <p>Increased VMT</p>
<b>UTILITIES AND SERVICE SYSTEMS</b>			
<p><b>Impact UTS-1 – Would the GPTZCU require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</b></p> <p>The anticipated growth under the GPTZCU is</p>	Significant	<p><b>Mitigation Measure UTL-1 Water Demand Management:</b> New developments under the GPTZCU that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plans for the involved local water providers.</p>	<p>Less than Significant</p>

<p>substantial and could require additional water resources if future growth is consistent with the growth projected in the EIR, which is designed to accommodate the City's 6<sup>th</sup> Cycle RHNA allocation. The impact to water supply facilities are <b>potentially significant</b> and require mitigation.</p> <p>Impacts to wastewater, stormwater, electric power, natural gas, and telecommunication infrastructure is considered less than significant.</p>			
<p><b>UTS-2 – Would there be sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</b></p> <p>The GPTZCU is expected to require more water than is currently identified in the most recent UWMP. Conservation efforts and/or increased supply (from recycled water or other sources) may account for the anticipated growth; however, the potential impacts to water supply are considered <b>potentially significant</b>.</p>	Significant	<b>See Mitigation Measure UTIL-1, Above</b>	Less than Significant
<p><b>UTS-6 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to utilities and service systems?</b></p> <p>The growth projections of the proposed GPTZCU are different than those of the 1994 General Plan, and it is possible the increases in projected housing and population and changes in non-residential development may have adverse impacts on water demand but are not expected to have significant impacts on sewer/wastewater, storm drainage, energy, telecommunications, or solid waste infrastructure and service providers in the region.</p>	Significant	<b>See Mitigation Measure UTIL-1, Above</b>	Less than Significant

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## 2.7 Alternatives to the Proposed Project

Pursuant to State CEQA Guidelines Section 15126.6, this chapter describes three alternatives to the General Plan and Targeted Zoning Code Update (Project), including the CEQA-mandated No Project Alternative, and compares the impacts of each alternative to the Project. The ability of each alternative to meet the basic project objectives is also described, and the “environmentally superior” alternative among the three is identified, as required by the CEQA Guidelines.

In accordance with CEQA Guidelines Section 15126.6(a), an EIR does not need to evaluate every conceivable alternative. A feasible range of alternatives has been evaluated that will allow decision-makers to make a reasoned choice and that meet most of the project objectives. The project objectives included in Chapter 3, Project Description, are:

1. **Healthy and Safe Neighborhoods.** Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. **Economic Strength and Local Businesses.** Strengthen the City’s industrial and office sectors while increasing and diversifying commercial businesses.
3. **Diversified Economy.** Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
4. **Downtown.** Strive for a downtown that showcases our rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
5. **Active and Diverse Transportation.** Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
6. **Environmental Justice and Community Safety.** Improve environmental conditions, noise conditions, and air and water quality for all residents and people working in the City by minimizing the impacts of industrial businesses, truck and commuter traffic, and contaminated lands.
7. **Clean and Sustainable Environment.** Insist upon remediation of contaminated land and take steps to prevent pollution from the different processes involved in industrial business operations. Improve local air quality and make rational use of natural resources to support environmental responsibility and the collective health of residents, employees, and visitors.
8. **Equitable and Inclusionary.** Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Our residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
9. **Adaptive and Resilient Community.** Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

10. **Technology.** Embrace technology and innovative practices where digital technology and intelligent design can be harnessed to create smart, sustainable cities and adaptable infrastructure systems.

***Alternative 1: No Project/Existing 1994 General Plan***

The No Project/Existing General Plan Alternative (No Project Alternative) assumes that development would occur within the Planning Area, but only development anticipated under the 1994 General Plan. For this alternative, it is assumed there would be a significant reduction in residential development and a significant increase in non-residential development when compared to the Project. Additionally, no new policies, goals, or development standards associated with the Project would be implemented; the standards, goals, and policies associated with the 1994 General Plan would be applicable. This alternative would not meet the City's Regional Housing Needs Allocation (RHNA) goals.

***Alternative 2: Reduced Mixed-Use Alternative***

The Reduced Mixed-Use Alternative reflects a reduced number of residential units and reduced amount of non-residential development (both approximately 25 percent less) compared to those expected under the proposed GPTZCU. This alternative assumes that policies, goals, or development standards associated with the Project would apply to this alternative. This alternative would meet the City's Regional Housing Needs Allocation (RHNA) goals.

***Alternative 3: Reduced Residential Alternative***

The Reduced Residential Alternative assumes that the total number of dwelling units under this alternative would be 50 percent less than the increase expected under the proposed GPTZCU. This alternative assumes the same amount of non-residential development as the proposed GPTZCU. This alternative assumes that policies, goals, or development standards associated with the Project would apply to this alternative. This alternative would also meet the City's Regional Housing Needs Allocation (RHNA) goals.

***Environmentally Superior Alternative***

None of the alternatives would eliminate or reduce any of the significant impacts of the GPTZCU to less than significant levels. However, Alternative 3, the Reduced Residential Alternative would reduce potential impacts to the greatest degree and would therefore be the "environmentally superior alternative." This conclusion is based on the comparative impact conclusions in Table 2-2 and the analysis within this chapter. In addition, this alternative would meet the City's Regional Housing Needs Allocation (RHNA) goals.

**Table 2-3  
Alternatives' Impacts Compared to Project Impacts**

<b>Impact/Resource</b>	<b>Alternative 1: No Project Existing General Plan</b>	<b>Alternative 2: Reduced (-25%) Mixed-Use Alternative</b>	<b>Alternative 3: Reduced (-50%) Residential Alternative</b>
<b>Air Quality</b>	<b>Similar SU</b>	<b>Reduced SU</b>	<b>Similar SU</b>
<b>Biological Resources</b>	Similar LTS	Similar LTS	Similar LTS
<b>Cultural Resources</b>	Similar LTS	Similar LTS	Similar LTS
<b>Energy</b>	Similar LTS	Reduced LTS	Similar LTS
<b>Geology and Soils</b>	Similar LTS	Similar LTS	Similar LTS
<b>Greenhouse Gas Emissions</b>	<b>Similar SU</b>	<b>Reduced SU</b>	<b>Similar SU</b>
<b>Hazards and Hazardous Materials</b>	Similar LTS	Similar LTS	Similar LTS
<b>Hydrology and Water Quality</b>	Similar LTS	Similar LTS	Similar LTS
<b>Land Use</b>	Similar LTS	Similar LTS	Similar LTS
<b>Noise</b>	Similar LTS	Reduced LTS	Reduced LTS
<b>Population and Housing</b>	Reduced LTS	Reduced LTS	Similar LTS
<b>Public Services</b>	Similar LTS	Reduced LTS	Similar LTS
<b>Recreation</b>	Reduced LTS	Reduced LTS	Similar LTS
<b>Transportation (VMT)</b>	<b>Similar SU</b>	<b>Reduced SU</b>	<b>Similar SU</b>
<b>Tribal Cultural Resources</b>	Similar LTS	Similar LTS	Similar LTS
<b>Utilities and Service Systems</b>	Similar LTS	Reduced LTS	Similar LTS
Source: MIG, 2021 LTS= Less Than Significant Impact SU= Significant and Unavoidable Impact			

## 2.8 Areas of Potential Controversy

Potential Areas of Controversy include:

**Increased Housing and VMT;** . The increase in vehicle miles traveled (VMT) has the potential to conflict with SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS, otherwise known as "Connect SoCal") and exceed State VMT thresholds.

**Greenhouse Gas (GHG) Compliance:** The greenhouse gas emissions associated with the implementation of the GPTZCU would exceed the 2017 Climate Change Scoping Plan's recommended efficiency metrics. The GPTZCU has the potential to result in growth which is approximately 2.5 times more than the assumed growth in the 2020 RTP/SCS and would conflict with State GHG reduction goals.

**Water Availability:** Depending on the rate of growth that actually occurs as a result of implementation of the GPTZCU, water serving agencies may be stressed in providing water supply to meet such growth.

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## 3.0 – Project Description

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The City's General Plan was last comprehensively updated in 1993 and 1994. This current comprehensive update of the City of Santa Fe Springs General Plan brings the document in conformance with the requirements of Article 5 (Authority for and Scope of General Plans) of the California Government Code and addresses changes to the demographic, economic and environmental conditions in Santa Fe Springs that are anticipated to occur through the year 2040. Article 5 requires that every city and county have a general plan that functions as a comprehensive, long-range policy document.

For cities, the general plan guides the physical development of the incorporated city (e.g., city limit) and any land outside city boundaries (e.g., unincorporated sphere of influence area) that has a relationship to a city's future growth and development. A sphere of influence is a planning boundary outside of a city's legal boundary (also known as the city limit line) that designates a city's probable future boundary and service area. The City of Santa Fe Springs General Plan applies to a Planning Area comprising the City of Santa Fe Springs and the unincorporated Los Angeles County territory generally located to the northwest and southeast of the City. The project analyzed in this program Environmental Impact Report (EIR) is the adoption and long-term implementation of the General Plan Update and the Targeted Zoning Code Update (GPTZCU) plus site-specific evaluation of four (4) key opportunity sites in the City.

The Planning Area for the GPTZCU is the incorporated City of Santa Fe Springs and its unincorporated sphere of influence.

### 3.1 – PLAN MAKING BACKGROUND

Under State law, local governments must be diligent in soliciting participation by all community members in this effort. As part of a comprehensive General Plan update program initiated in 2020, the City planned and implemented a robust public engagement program to inform, educate, and engage the community. Activities were designed to use stakeholder time efficiently so that an activity could inform more than one element.

The public engagement program emphasized people-centered strategies and public education activities designed to help participants understand how these plans can impact their community and daily lives. Outreach and engagement activities were scheduled early in the process to ensure that input informed key decision points throughout the development of the General Plan Update. Following COVID-19 guidance from local, State, and federal public health agencies, engagement activities were held online. Outreach materials and engagement activities were provided in English and Spanish.

The program leveraged a variety of outreach and engagement strategies, tools, and methods to encourage participation from a broad cross-section of the Santa Fe Springs community that represent the City's diverse cultural groups, income levels, ages, interests, and needs. In particular, the program sought out and considered the viewpoints of Disadvantaged



Communities (DACs) and groups that planning programs historically have not adequately engaged, such as communities of low- and moderate-income residents, seniors, youth, limited-English proficient individuals, people with disabilities, and individuals and groups often marginalized in civic engagement.

Between April 2020 and June 2021, the City completed the following outreach and engagement activities designed to promote and inform the public about the General Plan:

- Bilingual Communications and Social Media Campaign
- General Plan Project Website
- Community Survey (online and paper)
- Stakeholder Interviews and Focus Group Discussions
- General Plan Advisory Group (five meetings)
- Community Workshops (three workshops)
- Joint Study Sessions with the Planning Commission and City Council

### **Communications and Social Media Campaign**

The City and MIG launched and maintained a multi-media campaign to keep the community abreast of the General Plan Update and Housing Element activities and milestones. MIG provided updates and information via social media and other web-based platforms, the General Plan's dedicated website, print media, and press releases. Flyers, fact sheets, and press releases informed stakeholders and promoted engagement activities. All written and digital materials were provided in English and Spanish.

### **Website**

MIG, Inc. (the City's General Plan consultant) created and hosted a stand-alone website for the project, working with the City's IT and Planning Department staff to direct traffic from the City's website to the General Plan website<sup>1</sup>. The website included information around the General Plan update schedule and process, ways to get involved, upcoming meetings, ways to provide input, and public documents. The Housing Element was highlighted along with the new Environmental Justice and Economic Development Elements. Engagement activities focused on the Housing Element were summarized alongside key documents.

### **Survey**

During August and September 2020, the City conducted an online survey to understand community priorities, including housing priorities, with a focus on preferred transportation modes. To boost survey participation, City staff also distributed paper copies of the survey at senior housing facilities and the City library. The City received 84 surveys back from the community.

### **Stakeholder Interviews and Focus Groups**

MIG conducted eight one-on-one interviews and six small focus groups with community stakeholders between April to August 2020, engaging 36 stakeholders. The interviews and focus groups discussed nine questions and lasted approximately one hour. Responses were summarized only in aggregate, thereby encouraging the interviewees to speak freely.

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<sup>1</sup> [https://www.santafesprings.org/cityhall/planning/general\\_plan\\_update/](https://www.santafesprings.org/cityhall/planning/general_plan_update/)

In each interview and focus group, stakeholders were asked about critical challenges and opportunities including but not limited to residential and other development, where they would like to see new housing, how they feel about converting industrial sites to residential uses, and the types of housing needed in Santa Fe Springs.

#### **General Plan Advisory Group**

The General Plan Advisory Group (GPAG) was formed to advise City staff and MIG during the development of this comprehensive General Plan Update and Targeted Zoning Code Update. Twenty members represented a range of community interests, including representatives from neighborhood groups, business groups, advocacy groups, and local organizations, residents representing a range of perspectives.

MIG facilitated five two-hour virtual GPAG meetings to confirm the community vision, identify economic development opportunities, develop land use and housing alternatives, receive input on the big ideas for each element, and review the revised goals and policies. Two of these five GPAG meetings, hosted on September 23, 2020, and October 7, 2020, focused on the Housing Element, and collected input on housing strategies, locations for future housing, and the big ideas discussed in the Housing Element. GPAG input was instrumental in the design of subsequent community workshops.

#### **Community Workshops**

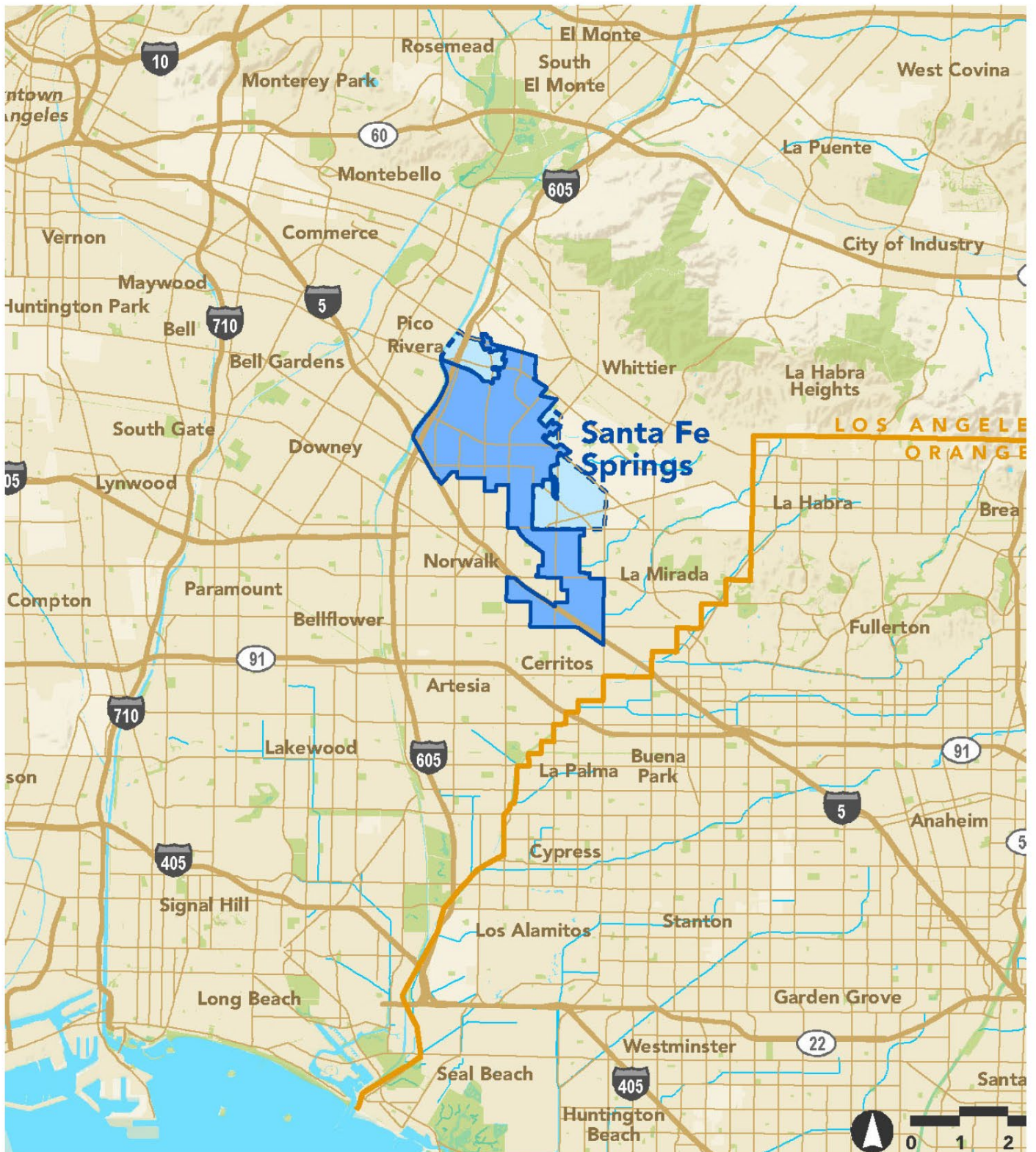
Between September 2020 and March 2021, MIG facilitated three virtual interactive community workshops that discussed a wide range of community issues including the need for community services and a grocery store, truck impacts to streets, lack of downtown and community gathering spaces, street parking challenges, and keeping the community clean from trash. Live Spanish translation services were available for every workshop. The first workshop informed the community on the General Plan process and identified community challenges and opportunities. The second workshop presented the Community Needs Assessment and elicited input on environmental burdens within disadvantaged community areas. The third workshop identified specific housing related land uses for the purpose of seeking ways to maximize housing opportunities. Workshops were promoted extensively by the City through website updates, e-blasts, social media posts, announcements at City events, Planning Commission and City Council meetings, and bilingual flyers distributed through library and food bank programs. Forty-eight stakeholders participated in the third community workshop on Wednesday, March 31, 2021, from 6:00 to 8:00 pm. During the third community workshop, the presentations provided an overview of the Housing Element, Regional Housing Needs Assessment, and housing strategies. A raffle was also held to increase attendance. Following the presentations, participants were invited to share their thoughts and ideas on housing issues, needs, and barriers, as well as locations for future housing.

#### **Study Sessions**

MIG conducted two study sessions on the General Plan to test ideas and concepts and confirm direction with decision-makers. Study sessions were held in December 2020 and May 2021 with the City Council and Planning Commission.

## 3.2 – LOCATION

Santa Fe Springs is located in southeast Los Angeles County, along the Interstate 5 corridor. The City is bordered by the cities of Downey, Pico Rivera, Whittier, La Mirada, Cerritos, and Norwalk. Adjacent unincorporated areas within the jurisdiction of Los Angeles County include Los Nietos, West Whittier, and South Whittier. Santa Fe Springs is strategically located with access to major transportation corridors, including the Interstate 605 (I-605) and Interstate 5 (I-5) freeways. Santa Fe Springs is 14 miles south of downtown Los Angeles and 32 miles north of downtown Santa Ana in Orange County via the I-5 freeway. Santa Fe Springs is also traversed by the Union Pacific and BNSF Railway rail corridors. The regional context of Santa Fe Springs is shown in Exhibit 3-1. Exhibit 3-2 provides a more detailed view of the Planning Area, including City boundaries and Sphere of Influence areas.



### Exhibit 3-1 Vicinity map

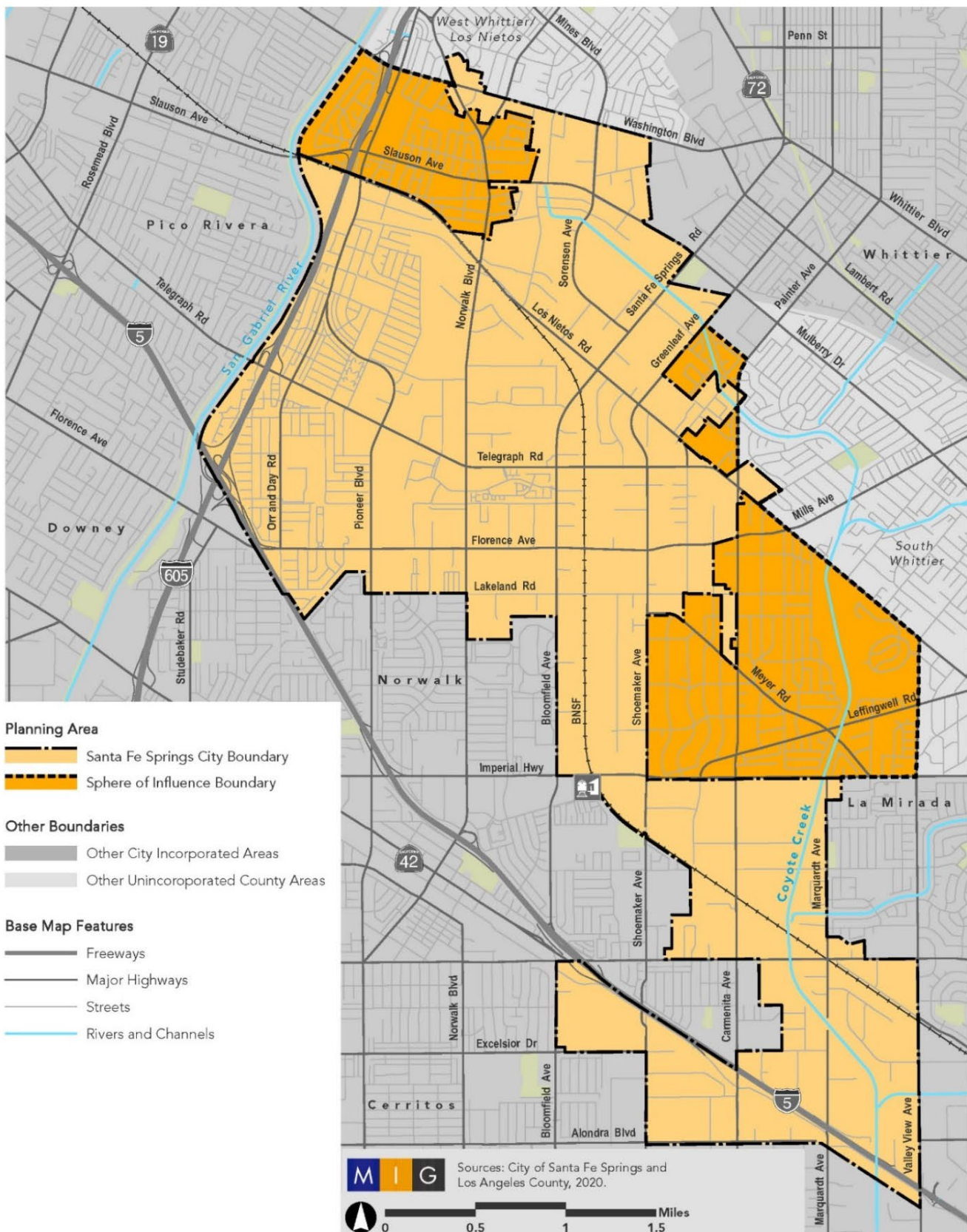
Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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## Exhibit 3-2 Planning Area

**Santa Fe Springs General Plan and Targeted Zoning Code Update**  
Santa Fe Springs, California



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### 3.3 – EXISTING CONDITIONS

#### Environmental Setting

The Planning Area consists of the corporate boundaries of the City of Santa Fe Springs and its Sphere of Influence. The San Gabriel River defines the western city limits. The unincorporated communities of West Whittier-Los Nietos and South Whittier that make up the Sphere of Influence abut the City's borders to the north and east. The areas within the City's corporate boundaries total 8.9 square miles (5,681 acres) and Sphere of Influence total 2.6 square miles (1,651 acres) for a total Planning Area of 11.5 square miles (7,332 acres).

The Planning Area is in the Los Angeles Basin, a coastal alluvial plain nestled between the Santa Monica Mountains, the Pacific Ocean, the Elysian, Repetto, and Puente Hills and the Santa Ana Mountains and San Joaquin Hills. Geologically, it occupies the Central Block area of the Los Angeles Basin adjacent to the Elsinore Fault and Newport-Inglewood Fault. Runoff from the San Gabriel Mountains five miles north of the City is the primary source of the San Gabriel River which recharges the aquifers of the Central Groundwater Basin. Water is drained by the San Gabriel River Watershed and eventually reaches the Pacific Ocean 10 miles south of the City. Few natural open spaces remain in the City.

The entire Planning Area has a total estimated population of 48,550 with most residing in the Sphere of Influence. According to the State Department of Finance, the population of the City in 2020 was 18,295 persons compared to its 2000 population of 16,414 persons. According to the American Community Survey 2014-2018 5-year estimates, the City's housing stock consists of 5,494 housing units and its employment base is 57,171 workers.<sup>2</sup> The Planning Area's urban development is part of the Los Angeles-Long Beach-Anaheim urban area, a densely developed territory with an area of 1,736 square mile and a total population of 12,563,660 and encompass residential, commercial, and other non-residential urban land uses of the Los Angeles Basin and adjoining urbanized valleys.<sup>3</sup>

Major regional transportation routes that carry vehicular traffic (personal vehicles, freight, buses, and rail service cross City borders. The City is named after the Atchison, Topeka & Santa Fe Railway. Metrolink operates rail passenger service at Norwalk/ Santa Fe Springs Station serving two lines: 91/ Perris Valley Line and Orange County Line. Both the BNSF Railway and Union Pacific railroads operate in Santa Fe Springs, with a Union Pacific rail yard located adjacent to Los Nietos Road and Union Pacific Distribution Services operating the Valla rail port on Sorenson Avenue. Rail freight operates within long established rail easements/rights-of-way that traverse the City, largely at at-grade crossings. The interchange of the I-605 and the 1-5 freeways is in the City and several regional roadways provide multiple access points along the routes of the freeways. Within the City, Telegraph Road, Slauson Avenue, and Washington Boulevard provide primary access to I-605. I-5, on the southwest City boundary, is a major interstate highway providing north-south connectivity to Los Angeles, Anaheim, and Irvine, and as far north as Washington state. Pioneer Boulevard, Norwalk Boulevard, Bloomfield Avenue, Carmenita Road, Valley View Avenue, and Florence Avenue provide access to the I-5.

The storm drain system in Santa Fe Springs, which is maintained by the Los Angeles County Flood Control District (LACFCD), funnels stormwater through a network of mains and catch

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<sup>2</sup> Pre-certified Local Housing Data for the City of Santa Fe Springs. Southern California Association of Governments. August 2020.

<sup>3</sup> Urban Areas Facts <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/ua-facts.html>



basins until it is eventually discharged in the Pacific Ocean via the San Gabriel River and its tributaries. High concentrations of impervious surfaces in intensive urban areas, like Santa Fe Springs and surrounding vicinities, has contributed to poor water quality from polluted stormwater runoff. Key sources of contamination include sediment, nutrients, pesticides, metals, oil and grease, and pathogens. The San Gabriel River is impaired by pollutants, including selenium and metals, such as copper, lead, and zinc. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials, such as galvanized steel, that are exposed to rain.

### **Existing Land Use**

The existing land uses are divided into 12 categories: single family, multi-family, commercial, hotel/motel, office, industrial, public facilities, parks and open space, river and creeks, golf courses, railroad right-of-way, and vacant lands. Santa Fe Springs' existing land use distribution is noted in Table 3-1. The City's Existing Land Use map is shown as Exhibit 3-3. There are an estimated 5,494 dwelling units within the City limits and 6,639 dwelling units in the Sphere of Influence, for a total 12,152 dwellings within the Planning Area.

**Table 3-1  
Existing Land Use Distribution (2020)**

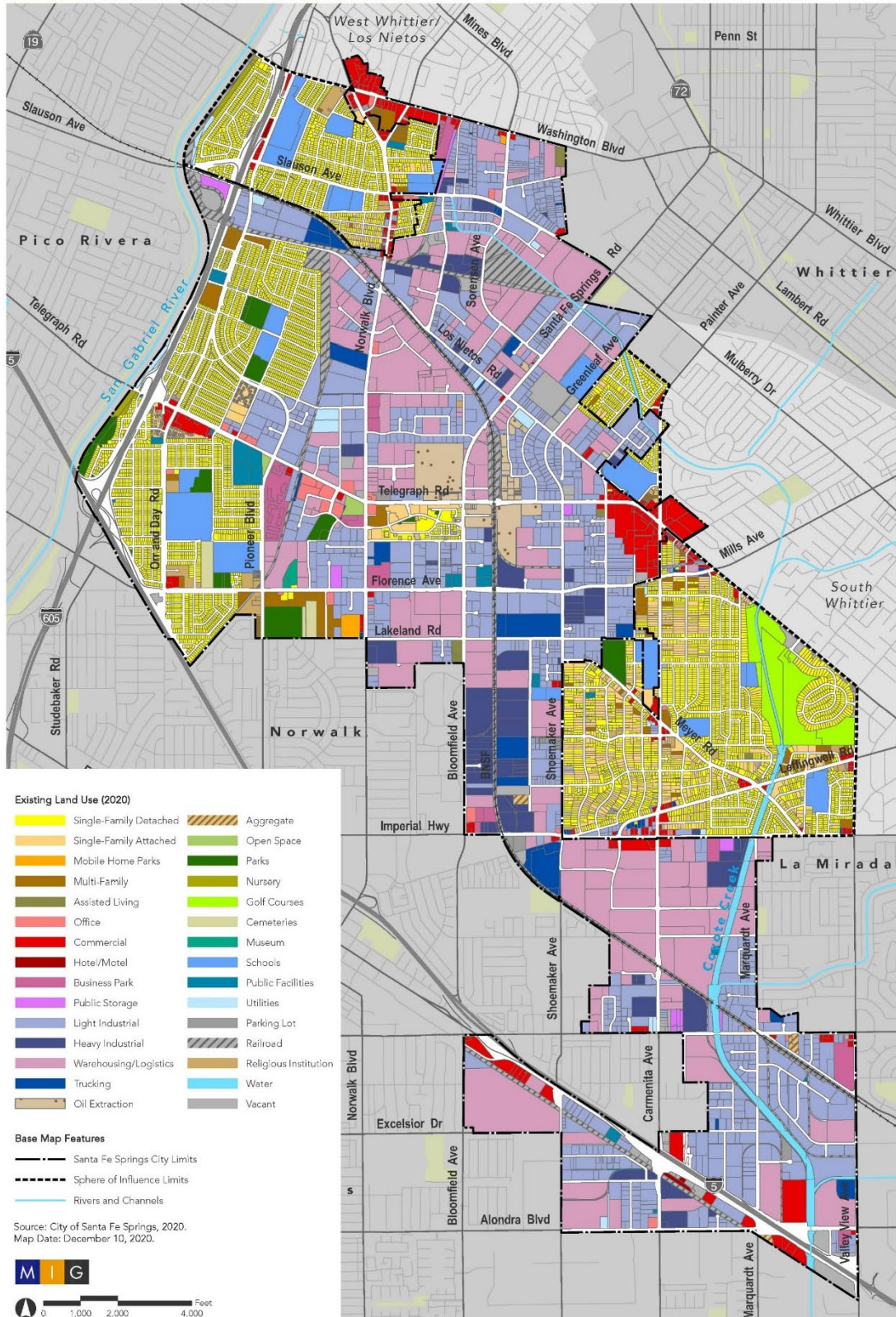
Land Use Designation	Santa Fe Springs					Sphere of Influence					Planning Area				
	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees
<b>Residential</b>															
Single-Family	424.1	3,954	12,981	--	--	640.8	5,825	25,449	--	--	1,064.9	9,779	38,430	--	--
Multiple-Family	95.9	1,559	5,311	--	--	207.8	814	3,177	--	--	303.7	2,373	8,488	--	--
<b>Sub-Total</b>	<b>520.0</b>	<b>5,513</b>	<b>18,292</b>	<b>--</b>	<b>--</b>	<b>848.6</b>	<b>6,639</b>	<b>28,626</b>	<b>--</b>	<b>--</b>	<b>1,368.6</b>	<b>12,152</b>	<b>46,918</b>	<b>--</b>	<b>--</b>
<b>Commercial</b>															
Commercial	221.3	--	--	3,922,700	5,296	36.8	--	--	382,400	379	258.1	--	--	4,305,100	5,675
Hotel/Motel	2.8	--	--	140,000	50	1.6	--	--	26,500	28	4.4	--	--	166,500	78
Office	117.9	--	--	3,203,800	2,998	2.6	--	--	30,900	13	120.5	--	--	3,234,700	3,011
<b>Sub-Total</b>	<b>342.0</b>	<b>--</b>	<b>--</b>	<b>7,266,500</b>	<b>8,344</b>	<b>41.0</b>	<b>--</b>	<b>--</b>	<b>439,800</b>	<b>420</b>	<b>383</b>	<b>--</b>	<b>--</b>	<b>7,706,300</b>	<b>8,764</b>
<b>Industrial</b>															
Industrial	3,322.3	--	--	67,743,600	43,330	11.6	--	--	92,500	296	3,333.9	--	--	67,836,100	43,626
<b>Sub-Total</b>	<b>3,322.3</b>	<b>--</b>	<b>--</b>	<b>67,743,600</b>	<b>43,330</b>	<b>11.6</b>	<b>--</b>	<b>--</b>	<b>92,500</b>	<b>296</b>	<b>3,333.9</b>	<b>--</b>	<b>--</b>	<b>67,836,100</b>	<b>43,626</b>

<b>Public Facilities, Institutional, and Open Space</b>															
Public Facility	155.7	--	--	1,780,800	3,042	219.3	--	--	761,300	638	375.0	--	--	2,542,100	3,680
Parks and Open Space	97.1	--	--	--	--	14.4	--	--	--	--	111.5	--	--	--	--
Rivers and Creeks	56.6	--	--	--	--	16.8	--	--	--	--	73.4	--	--	--	--
Golf Courses	--	--	--	--	--	96.6	--	--	--	--	96.6	--	--	--	--
<b>Sub-Total</b>	<b>309.4</b>	<b>--</b>	<b>--</b>	<b>1,780,800</b>	<b>3042</b>	<b>347.1</b>	<b>--</b>	<b>--</b>	<b>761,300</b>	<b>638</b>	<b>656.5</b>	<b>--</b>	<b>--</b>	<b>2,542,100</b>	<b>3,680</b>
<b>Other</b>															
Vacant	93.3	--	--	--	--	13.4	--	--	--	--	106.7	--	--	--	--
Railroad Right-of-Way	153.6	--	--	--	--	--	--	--	--	--	153.6	--	--	--	--
Street Right-of-Way	940.4					389.1					1,329.5				
<b>Sub-Total</b>	<b>1,187.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>402.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>1,589.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>TOTAL</b>	<b>5,681.0</b>	<b>5,513</b>	<b>18,292</b>	<b>76,790,900</b>	<b>54,716</b>	<b>1,650.8</b>	<b>6,639</b>	<b>28,626</b>	<b>1,293,600</b>	<b>1,354</b>	<b>7,331.8</b>	<b>12,152</b>	<b>46,918</b>	<b>78,084,500</b>	<b>56,070</b>

Source: City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.



RE-IMAGINE SANTA FE SPRINGS 2040 GENERAL PLAN



### Exhibit 3-3 Existing Land Use (2020)

#### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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### 3.4– PROJECT OBJECTIVES

The comprehensive update of the Santa Fe Springs General Plan serves as the blueprint for the City's future growth and development. As such, the General Plan must contain goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. The General Plan Update establishes the following objectives for the long-term growth and enhancement of the community:

1. **Healthy and Safe Neighborhoods.** Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. **Economic Strength and Local Businesses.** Strengthen the City's industrial and office sectors while increasing and diversifying commercial businesses.
3. **Diversified Economy.** Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
4. **Downtown.** Strive for a downtown that showcases our rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
5. **Active and Diverse Transportation.** Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
6. **Environmental Justice and Community Safety.** Improve environmental conditions, noise conditions, and air and water quality for all residents and people working in the City by minimizing the impacts of industrial businesses, truck and commuter traffic, and contaminated lands.
7. **Clean and Sustainable Environment.** Insist upon remediation of contaminated land and take steps to prevent pollution from the different processes involved in industrial business operations. Improve local air quality and make rational use of natural resources to support environmental responsibility, recycling/reuse, and the collective health of residents, employees, and visitors.
8. **Equitable and Inclusionary.** Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Our residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
9. **Adaptive and Resilient Community.** Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.
10. **Technology.** Embrace technology and innovative practices where digital technology and intelligent design can be harnessed to create smart, sustainable cities and adaptable infrastructure systems.

### 3.5– PROJECT CHARACTERISTICS/GENERAL PLAN UPDATE

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 3-2 compares existing conditions as of 2020 with the projected growth for the 2040 horizon year for the City of Santa Fe Springs, the Sphere of Influence, and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated to result in increases of approximately 4,572 dwellings, 364,000 square feet of office space, 383,500 square feet of industrial space, and a reduction of 80,000 square feet of commercial space. With these land use changes will be estimated increases of approximately 13,890 residents and 4,788 jobs projected for the 2040 horizon year. This Table 3-2 shows existing conditions as of 2020 and the projected growth for the 2040 horizon year.

#### General Plan Elements

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 3-2 compares existing conditions as of 2020 and 2040 land uses for the City of Santa Fe Springs, the Sphere of Influence, and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated at approximately 16,724 dwelling units, 60,808 residents, 79,573,800 building square feet of non-residential uses, and 60,858 jobs.

**Table 3-2**  
**General Plan Update: Comparison of 2020 and 2040**

Development Indicators	Existing Conditions (2020)			Future Buildout Conditions (2040)		
	City	SOI	Total	City	SOI	Total
Dwelling Units	5,513	6,639	12,152	9,421	7,303	16,724
Population	18,292	28,626	46,918	30,351	30,457	60,808
Non-Residential Square Feet	76,790,900	1,293,600	78,084,500	78,273,600	1,300,200	79,573,800
Commercial	3,922,700	382,400	4,305,100	3,841,900	382,400	4,224,300
Office	3,203,800	30,900	3,234,700	3,564,200	34,500	3,598,700
Hotels/Motels (SF) Rooms	140,000	26,500	166,500	553,900	26,500	580,400
	150	120	270	900	120	1,020
Industrial	67,743,600	92,500	67,836,100	68,537,100	92,500	68,219,600
Public Facilities/ Institutional	1,780,800	761,300	2,542,100	1,776,600	761,300	2,537,900
Employees	54,716	1,354	56,070	59,321	1,536	60,858
Students	5,446	4,049	9,495	6,638	4,914	11,552

**Source:** City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.

The City of Santa Fe Springs General Plan update succeeds the last comprehensive general plan adopted in 1993 and 1994. The General Plan Update incorporates statutory requirements for general plans and guidance provided in the 2017 General Plan Guidelines; coordinates future development and policies with regional planning efforts and serves as the city's fundamental guide in developing strategies to address greenhouse gas reduction, climate change, and climate planning.

### 3.0 – Project Description

The EIR incorporates the goals, policies, and objectives of the following Elements in the adopted General Plan:

- Land Use Element
- Circulation Element
- Housing Element (2021-2029)
- Open Space and Conservation Element
- Noise Element
- Safety Element
- Environmental Justice Element
- Economic Development Element

These goals, objectives, and policies are intended to maintain various potential environmental effects of the GPTZCU at levels that are less than significant and are considered when evaluating the potential environmental impacts of implementing the General Plan. Chapter 4 lists goals, policies, and objectives from the General Plan relative to the specific environmental issue being evaluated. The Housing Element is updated for the 6<sup>th</sup> cycle and planned developments identified in the Land Use Element accommodate the Regional Housing Needs Allocation goal of 950 housing units, which represents a 17.2% increase from the existing number of housing units.

The GPTZCU also includes Amendments to Chapter 155 (Zoning) of the Santa Fe Springs Municipal Code (Zoning Map and Zoning Text Amendments) to implement the Land Use Element's Land Use Plan.

#### Land Use Element

The Land Use Element provides the framework for establishing the patterns of development activity and land uses that achieve the General Plan's Vision and Guiding Principles. The Land Use Element serves as a guide for decision-makers, residents, stakeholders, business owners, and property owners as it identifies and describes the type, intensity, and general distribution of land for housing, businesses, industries, and public facilities. Land use designations identify the general categories of activities permitted throughout the City.

The Land Use Element includes a Land Use Plan that establishes land use designations intended to provide a rational and orderly approach to land use development. The land use designations and acreages for the City, Sphere of Influence, and Planning Area are noted in Table 3-3. Exhibit 3-4 shows the existing General Plan Land Use Map and Exhibit 3-5 shows the proposed General Plan Land Use Map. The land use overlays identify special study areas for which specific land use policies have been developed to better shape growth in these areas as shown in Exhibit 3-5. The goals and policies contained in the chapter provide guidance to plan for orderly growth, promote economic development, and protect natural resources.

#### Housing Element (2021-2029)

The Housing Element provides a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all community residents. The Housing Element specifically intends to: 1) provide direction for future planning programs to ensure that sufficient consideration is given to housing goals and policies; 2) establish community goals and policies relative to housing through the identification of existing, stated, and implicit goals, and the identification of housing needs and challenges; 3) and establish and identify programs to implement and attain the community's goals and policies, taking into consideration the feasibility of those programs, and act as a meaningful guide to decision-makers considering housing-related issues.



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Table 3-3  
Santa Fe Springs (City) General Plan Update (2040) Land Use

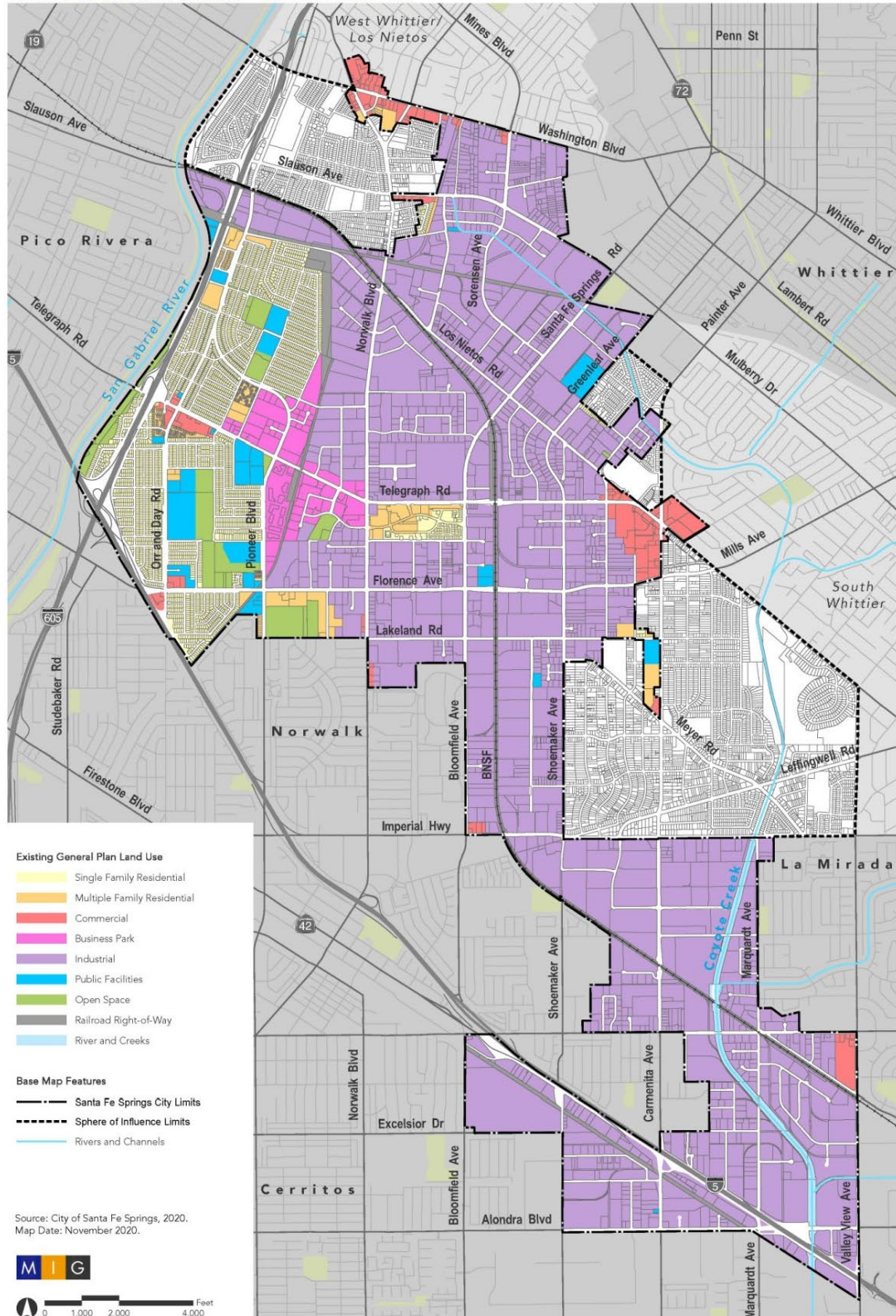
Land Use Designation	Santa Fe Springs					Sphere of Influence					Planning Area				
	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees
Residential															
Low Density Residential	413.4	3,561	11,111			521.5	3,870	16,224			934.9	7,431	27,335	-	-
Medium Density Residential	140.7	2,705	8,882			353.5	2,432	10,409			494.2	5,137	19,291	-	-
High Density Residential	6.3	241	791			47.2	1,001	3,824			53.5	1,242	4,615	-	-
	<b>560.4</b>	<b>6,507</b>	<b>20,784</b>	-	-	<b>922.2</b>	<b>7,303</b>	<b>30,457</b>	-	-	<b>1,482.6</b>	<b>13,810</b>	<b>51,242</b>	-	-
Commercial															
Commercial	123.0			2,190,300	3,141	42.7			535,700	510	165.7	-	-	2,726,000	3,651
Freeway Commercial	156.7			2,405,200	1,964	-				-	156.7	-	-	2,405,200	1,964
Business Park	178.5			2,968,500	3,083	-				-	178.5	-	-	2,968,500	3,083
	<b>458.2</b>	-	-	<b>7,564,000</b>	<b>8,188</b>	<b>42.7</b>	-	-	<b>535,700</b>	<b>510</b>	<b>500.9</b>	-	-	<b>8,099,700</b>	<b>8,698</b>
Mixed Use															
Mixed Use (40 du/ac)	38.1	832	2,732	292,300	970	-	-	-		-	38.1	832	2,732	292,300	970
Mixed Use TOD (60 du/ac)	36.6	1,436	4,714	237,200	530	-	-	-		-	36.6	1,436	4,714	237,200	530
Downtown (40 du/ac)	71.8	646	2,121	1,438,000	3,450	-	-	-		-	71.8	646	2,121	1,438,000	3,450
	<b>146.5</b>	<b>2,914</b>	<b>9,567</b>	<b>1,967,500</b>	<b>4,950</b>	-	-	-	-	-	<b>146.5</b>	<b>2,914</b>	<b>9,567</b>	<b>1,967,500</b>	<b>4,950</b>
Industrial															
Light Industrial	706.5			13,712,700	10,885	22.6			92,500	300	729.1	-	-	13,805,200	11,185
Industrial	2,454.0			54,414,400	33,979	-				-	2,454.0	-	-	54,414,400	33,979
	<b>3,160.5</b>	-	-	<b>68,127,100</b>	<b>44,864</b>	<b>22.6</b>	-	-	<b>92,500</b>	<b>300</b>	<b>3,183.1</b>	-	-	<b>68,219,600</b>	<b>45,164</b>
Public Facilities, Parks, and Open Space															
Public Facilities	113.0			615,000	1,319	146.3			672,000	726	259.2	-	-	1,287,000	2,046
Parks and Open Space	91.8					111.3					203.1	-	-	-	-
River and Creeks	56.6					16.8					73.5	-	-	-	-
Railroad Right-of-Way	153.6					-					153.6	-	-	-	-
Street Right-of-Way	940.4					388.9					1,329.3				
	<b>1,355.4</b>	-	-	<b>615,000</b>	<b>1,319</b>	<b>663.3</b>	-	-	<b>672,000</b>	<b>726</b>	<b>2,018.7</b>	-	-	<b>1,287,000</b>	<b>2,046</b>
	<b>5,681.0</b>	<b>9,421</b>	<b>30,351</b>	<b>78,273,600</b>	<b>59,321</b>	<b>1,650.8</b>	<b>7,303</b>	<b>30,457</b>	<b>1,300,200</b>	<b>1,536</b>	<b>7,331.8</b>	<b>16,724</b>	<b>60,808</b>	<b>79,573,800</b>	<b>60,857</b>

Source: City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.

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# Existing General Plan Land Use

RE-IMAGINE SANTA FE SPRINGS 2040 GENERAL PLAN



## Exhibit 3-4 Existing Plan Land Use

Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

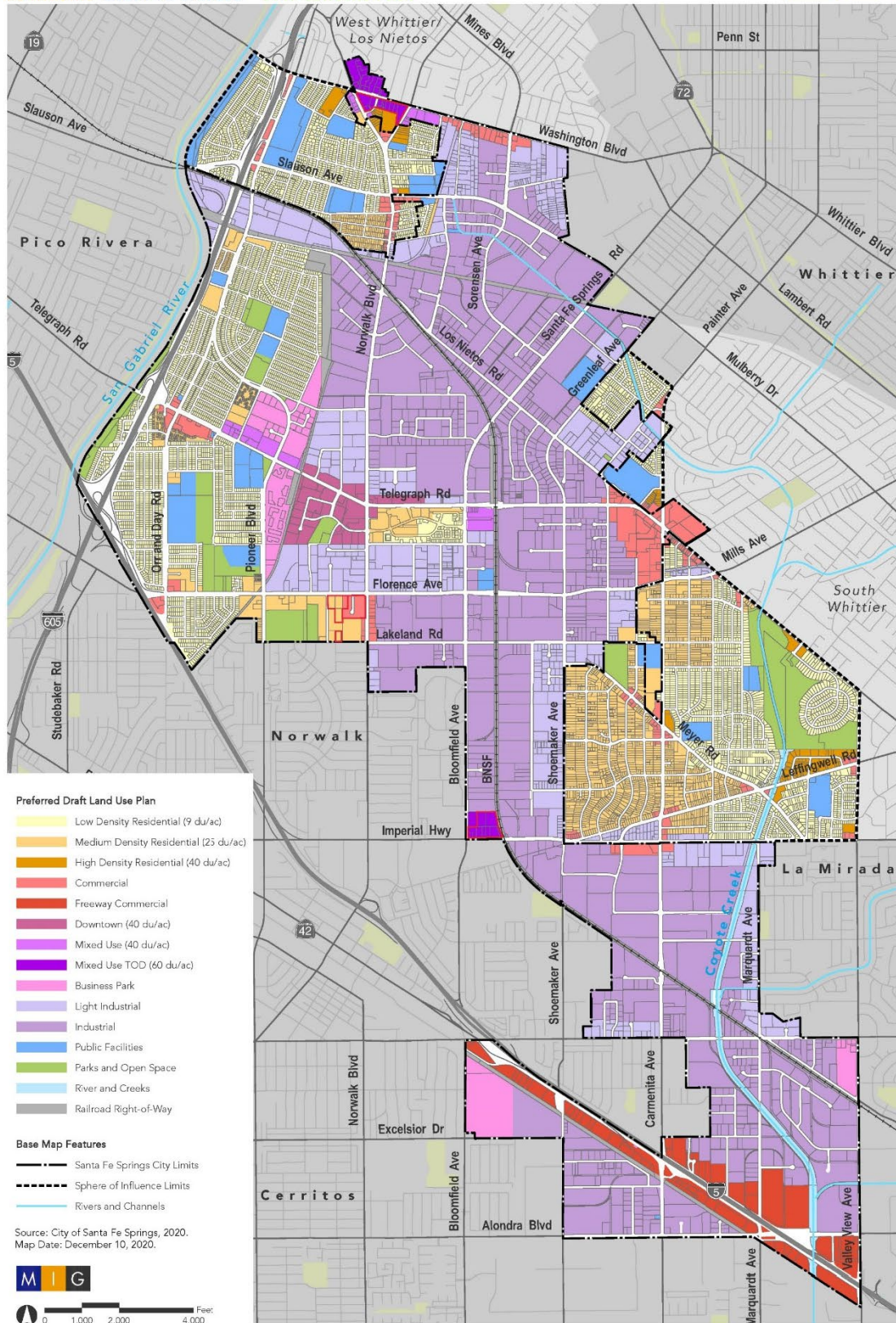


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RE-IMAGINE SANTA FE SPRINGS 2040 GENERAL PLAN



## Exhibit 3-5 Proposed General Plan Land Use

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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#### Environmental Justice Element

The Environmental Justice Element is mandated in the General Plan to serve as a comprehensive policy document specific to disadvantaged communities in the Planning Area. The Environmental Justice Element identifies the screening method to identify disadvantaged communities, documents the spatial relationship of existing and planned land uses, and provides a community profile relating to public health in the City. As mandated by State law, its contents identify policies and objectives related to addressing and identifying health risks associated with overconcentration and proximity of industrial and polluting land uses to residential; reducing health risks through promotion of physical activities, improved housing conditions, and food access.

#### **Zoning Map and Zoning Text Amendments**

Chapter 155 (Zoning) of the Santa Fe Springs Municipal Code (Zoning Map and Zoning Text Amendments) is the primary tool for implementing the goals, objectives and policies of the Land Use Element, pursuant to the mandated provisions of the State Planning and Zoning Law (Government Code Section 65000 et seq.), State Subdivision Map Act (Government Code Section 66410 et seq.), California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and other applicable state and local requirements. The zoning map and zoning regulations, including development standards, permits and procedures, zones and zone descriptions, that are contained in Chapter 155 are being revised to be consistent with the exhibits and text of the Land Use Element.

#### **Key Opportunity Sites**

In addition to the General Plan and Zoning updates, the project includes four Key Opportunity Sites. The following describes the potential development that could be built within each site. Table 3-4 identifies the development capacity and general development standards for each site. Exhibits 3-5 through 3-8 show the location and existing land uses for each site and surrounding areas, and Exhibits 3-9 through 3-12 provide conceptual illustrations for each site. Each of these sites are discussed in each topical area Chapter (Air Quality, Noise, etc.) with respect to potential environmental impacts.

#### **Washington Boulevard/Norwalk Transit-Oriented Communities (TOC)**

This site is located within the triangular blocks between Washington Boulevard, Norwalk Boulevard, and Broadway Avenue bordering the City of Santa Fe Springs and the Los Angeles County unincorporated area of West Whittier-Los Nietos. The area, on the southside of Washington Boulevard, consists of older vehicle-oriented commercial properties and restaurants. A Metro Eastside Transit Corridor Phase 2 light rail station (Metro L line) is planned for this segment of Washington Boulevard. The line will connect the current terminus in East Los Angeles to the City of Whittier at Lambert Road. A conceptual design for the proposed Washington Boulevard/Norwalk Transit-Oriented Communities project was evaluated based on development of up to 422 residential units and 38,300 square feet of non-residential building area within multiple buildings with a maximum height of six-stories. The ground floor would include pedestrian-oriented commercial uses, such as retail and restaurants, as well as residential lobbies. Development of this area would also include ground floor open space, including a public plaza with seating, landscaping, outdoor dining, and widened sidewalks.



### **Metrolink Transit-Oriented Community (TOC)**

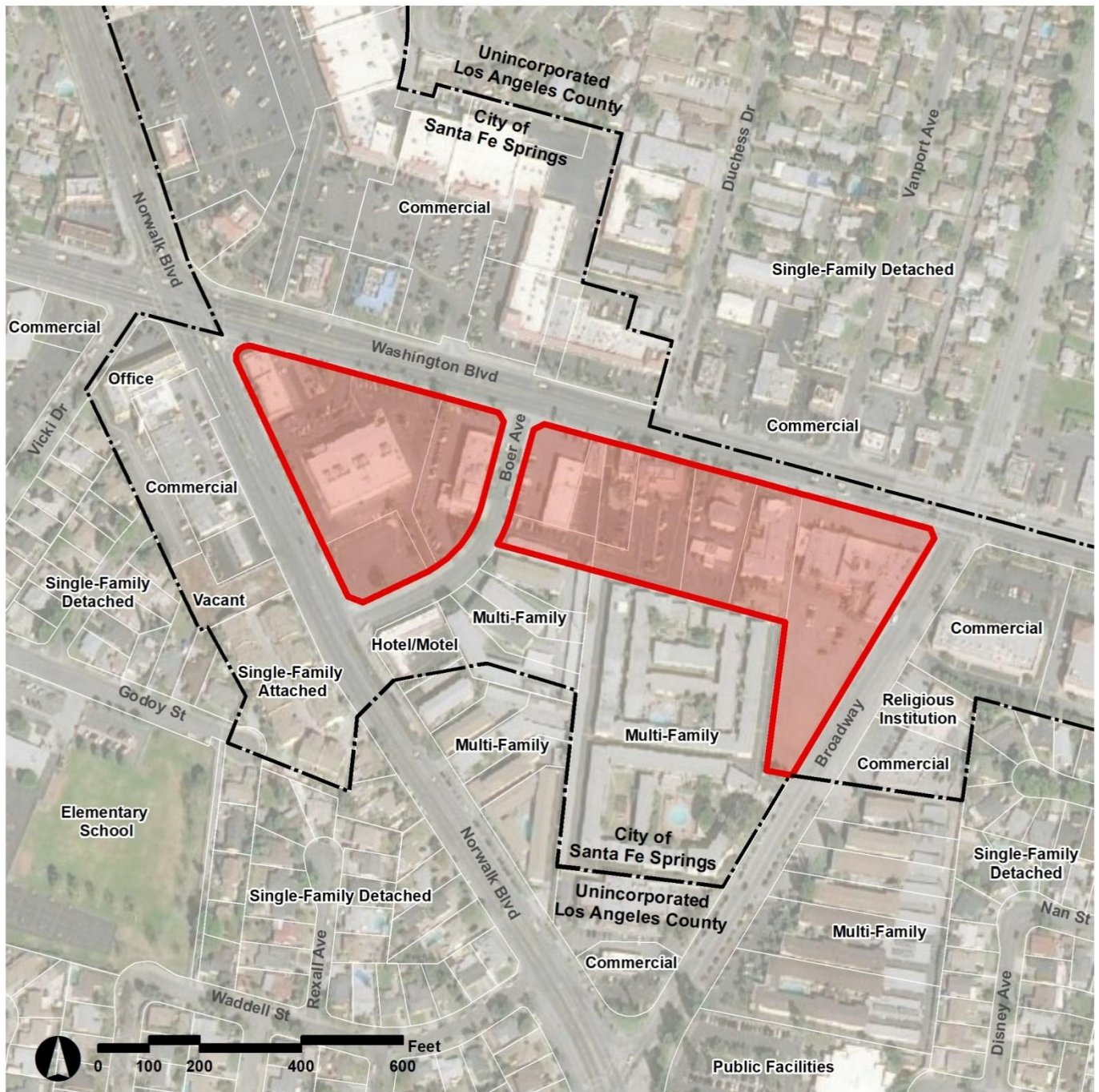
This site is located at the northeast corner of Imperial Highway and Bloomfield Avenue bordering the City of Norwalk and across the street from the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station. The development envisioned for this area would replace existing commercial, business park, and industrial properties. A development scenario for the Metrolink Transit-Oriented Communities was evaluated based on development of up to 582 residential units and 70,400 square feet of non-residential building area within multiple buildings with a maximum height of six stories. The ground floor would include pedestrian-oriented commercial uses, such as retail and restaurants, as well as residential lobbies. This site would also include ground floor open space, including a public plaza with seating, landscaping, and widened sidewalks.

### **MC&C III Site**

This site is located at the southeast corner of Telegraph Road and Bloomfield Avenue on vacant properties that include active and abandoned oil wells and associated pipelines. A conceptual design for the proposed MC&C Site project was evaluated based on development of up to 306 residential units and 55,500 square feet of non-residential building area within multiple buildings with a maximum height of four stories. Along Telegraph Road, the ground floor would include commercial uses, such as retail and restaurants and the upper floors will include residential units. Along Bloomfield Avenue, development would allow standalone residential development and live-work units directly fronting the street. Several oil wells may remain active but will be buffered from residential and commercial buildings by walls, fences, berms, etc..

### **Koontz Site**

This site is located between Lakeland Road, Norwalk Boulevard, Fulton Wells Avenue, and Florence Avenue. A conceptual design for this site evaluated the replacement of existing industrial properties with up to 156 residential units and 110,500 square feet of commercial or business park development within multiple one- to three-story buildings. Residential development will consist of tuck-under residential building types at three stories in height. Commercial development will consist of a neighborhood shopping center with retail, commercial services, and restaurants located at the property on the southwest corner of Florence Avenue and Norwalk Boulevard. The conceptual design includes a shopping center with multiple retail pads and an anchor store with a height of 25 feet assuming a C-1 zone (C-4 zone would allow up to 75 feet). The commercial use could also be a business park development depending on market conditions.

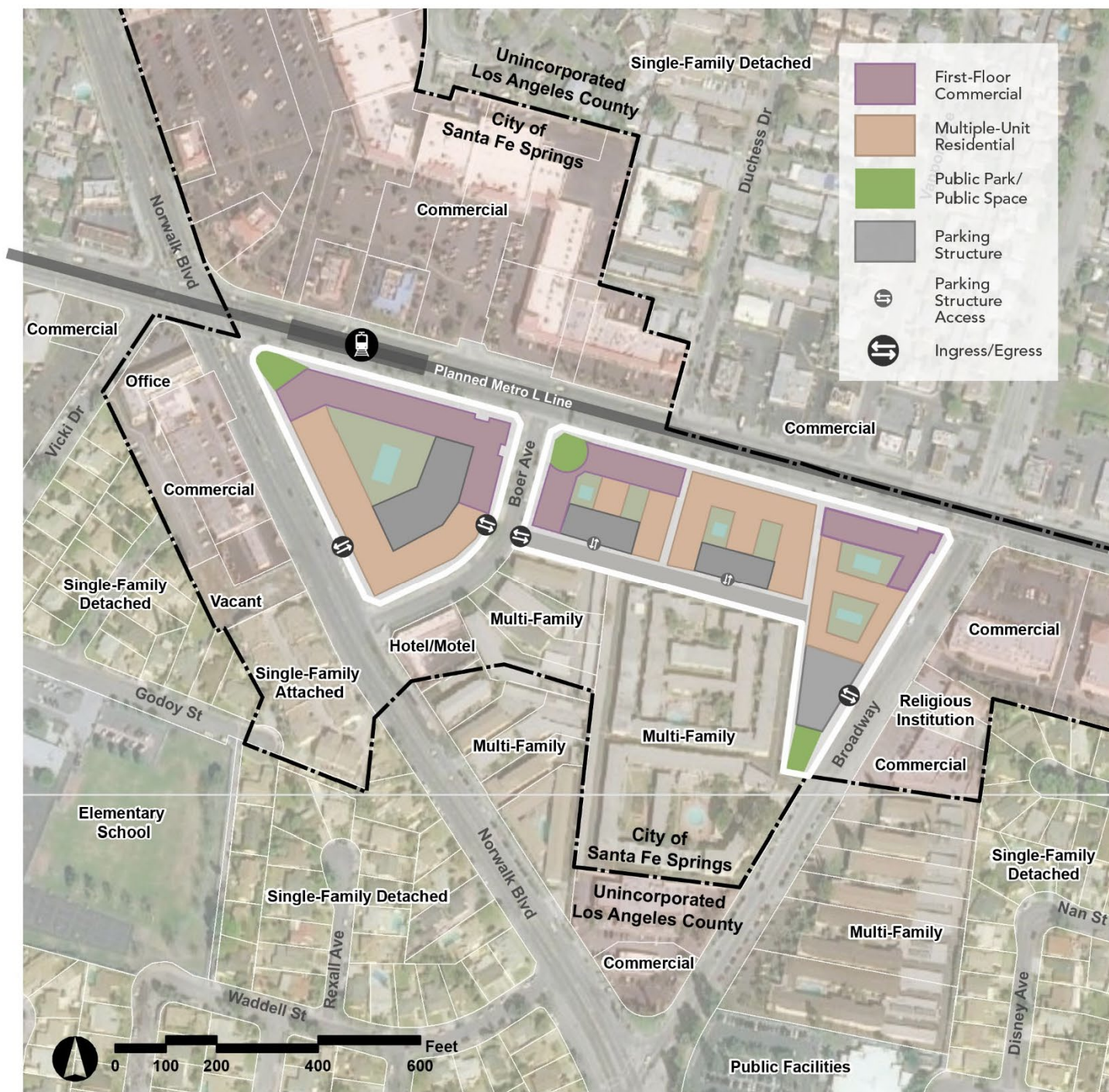


**Exhibit 3-6A Proposed General Plan Land Use**  
 Washington Boulevard/Norwalk Transit-Oriented Development  
 Santa Fe Springs General Plan and Targeted Zoning Code Update  
 Santa Fe Springs, California



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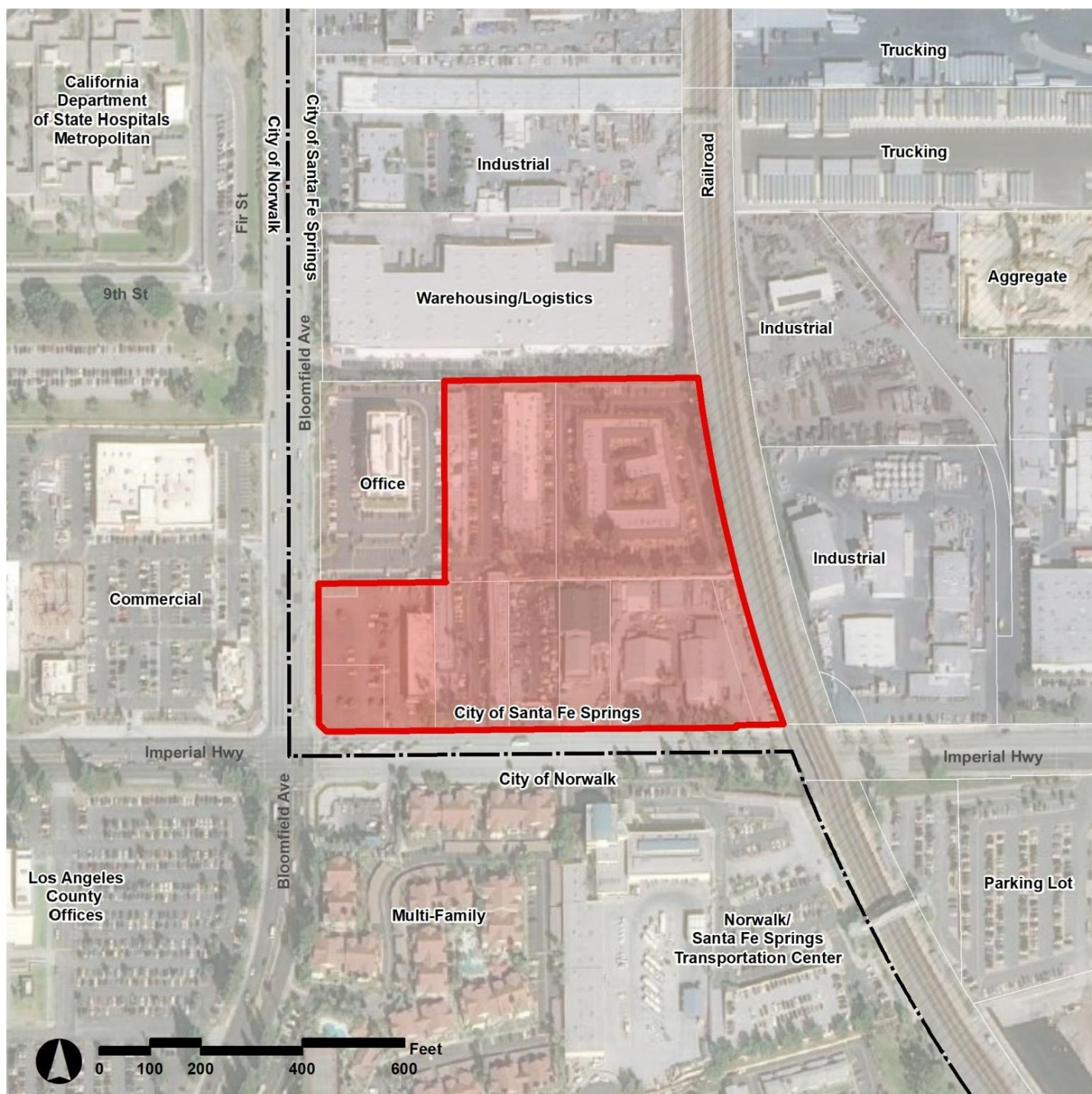


**Exhibit 3-6B Proposed Conceptual Land Use**  
 Washington Boulevard/Norwalk Transit-Oriented Development  
 Santa Fe Springs General Plan and Targeted Zoning Code Update  
 Santa Fe Springs, California



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## Exhibit 3-7A Proposed General Plan Land Use

Metrolink Transit Oriented Development

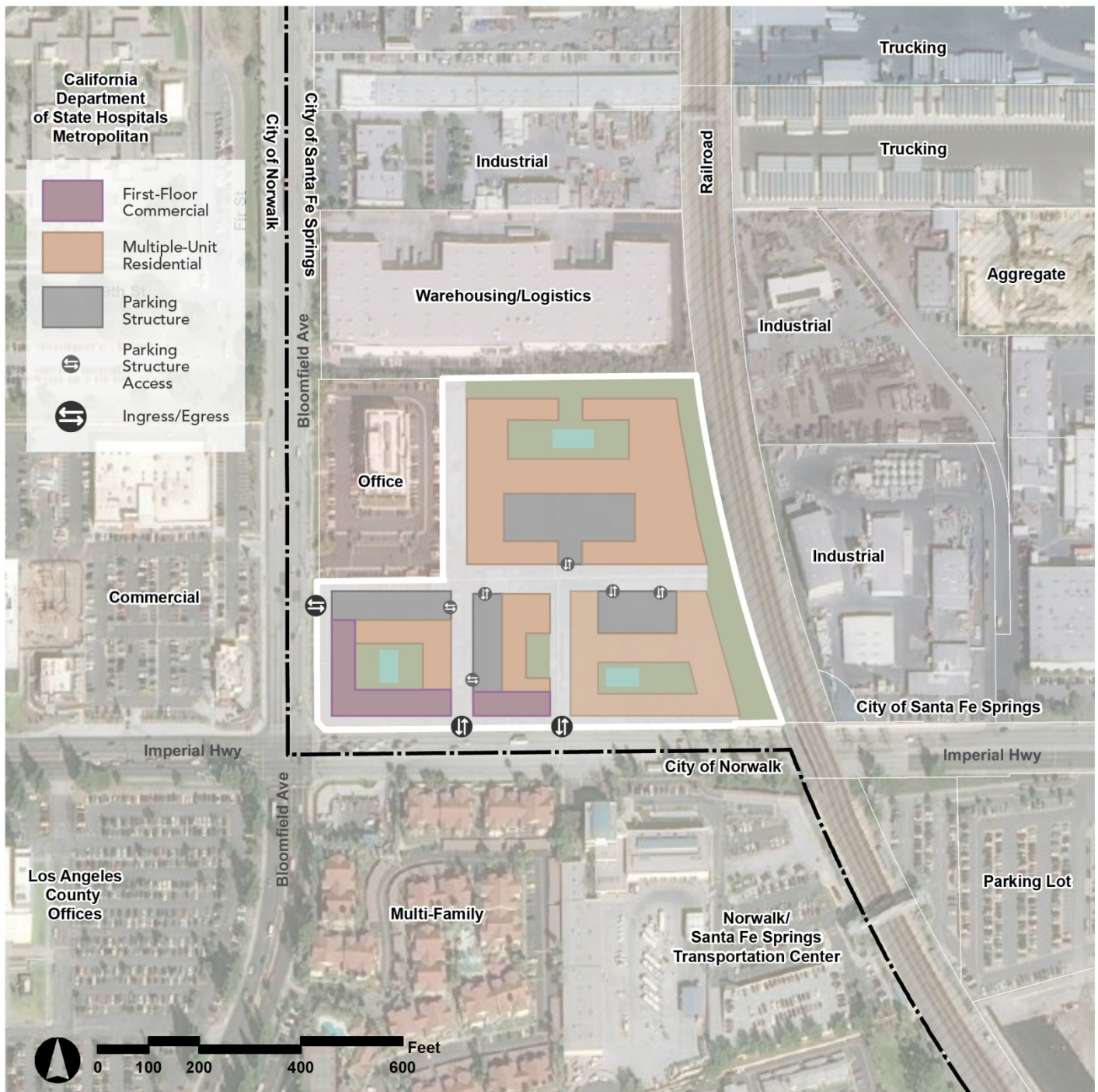
Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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## Exhibit 3-7B Proposed Conceptual Land Use

Metrolink Transit Oriented Development

Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California





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## Exhibit 3-8A Proposed General Plan Land Use

MC&C Site

Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

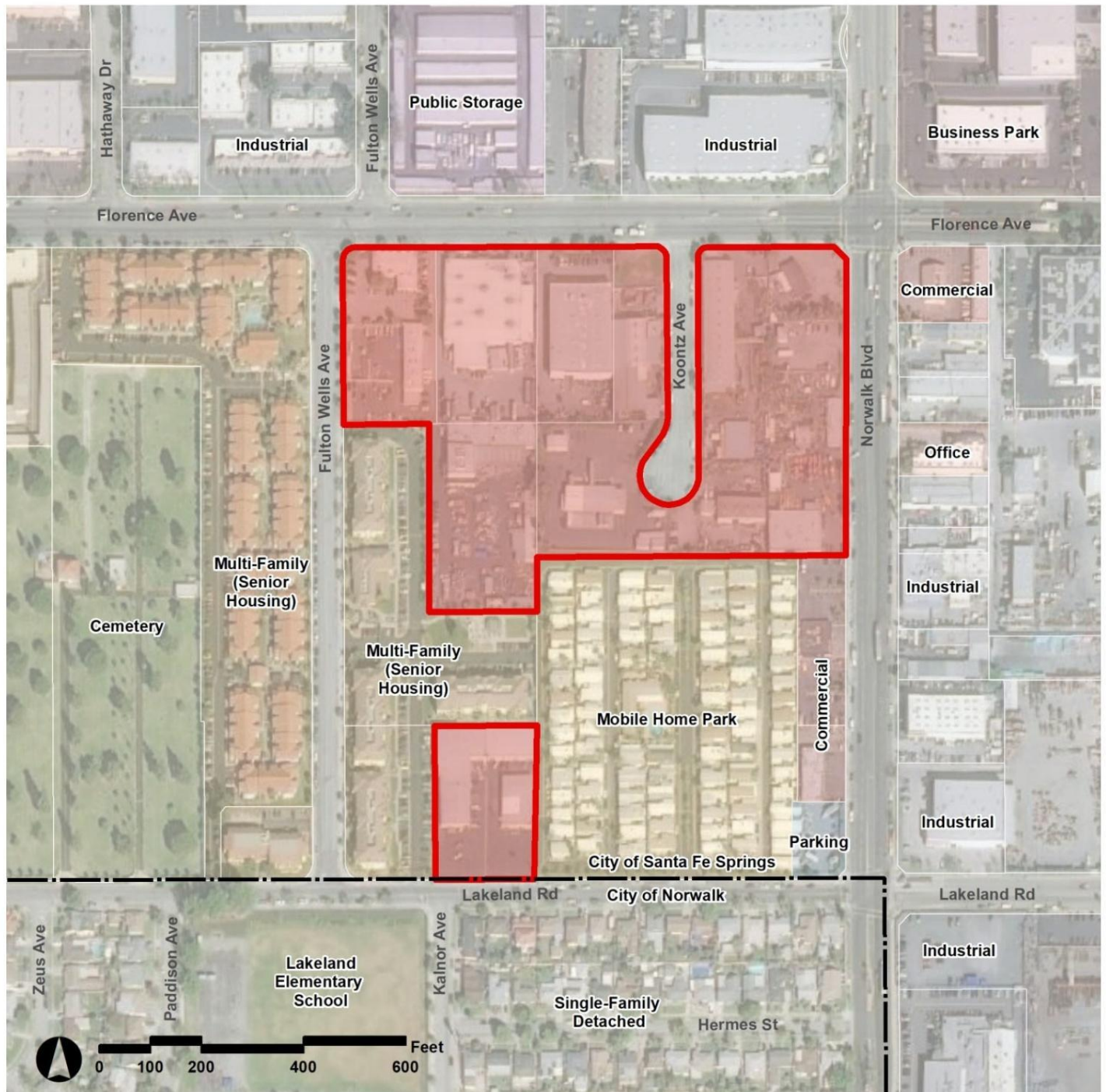


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## Exhibit 3-9A Proposed General Plan Land Use

Koontz Site

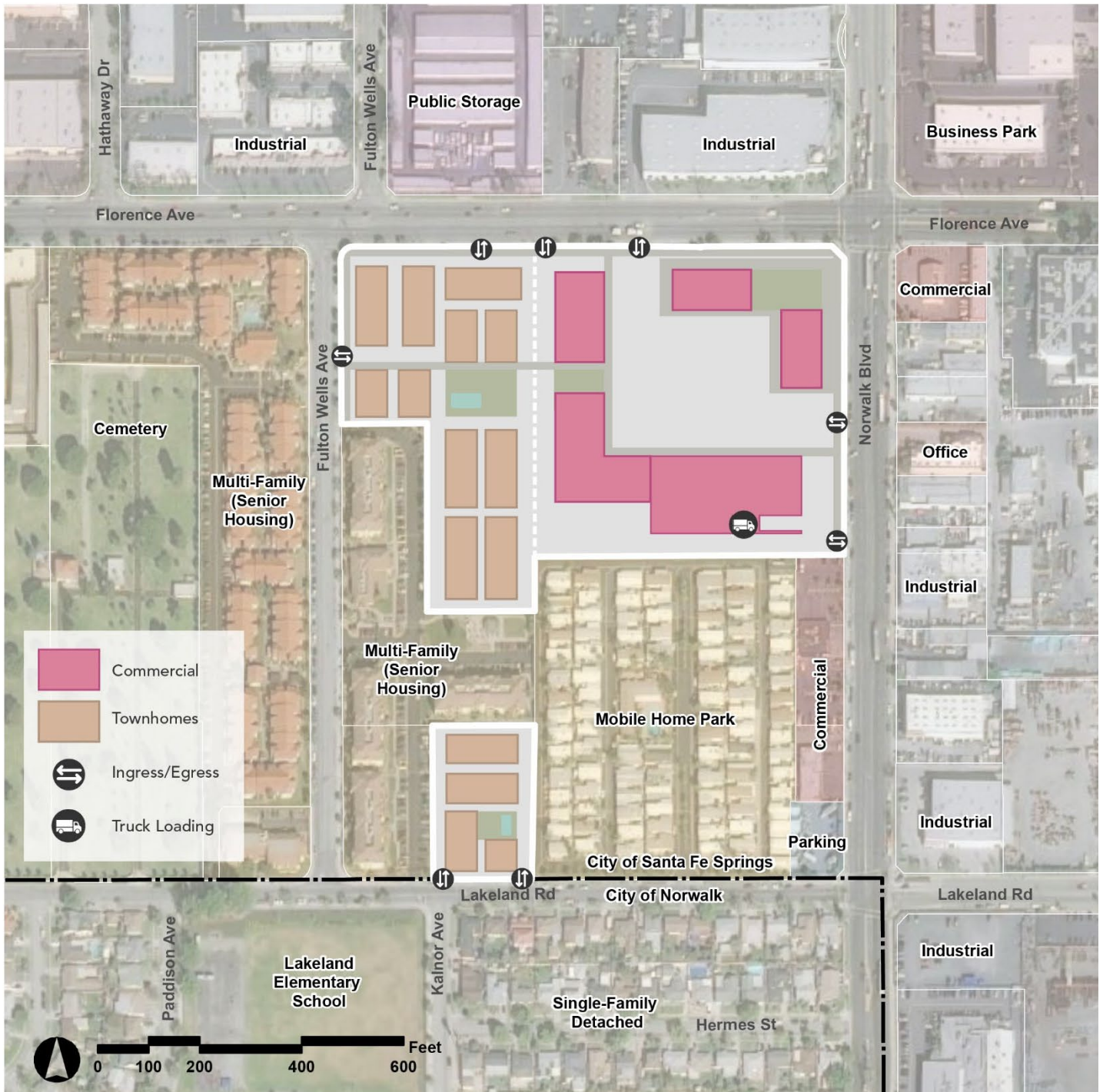
Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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## Exhibit 3-9B Proposed Conceptual Land Use

Koontz Site



Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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**Table 3-4  
Key Opportunity Sites**

Site	Acres	General Plan Land Use Designation	Key Use Types	Development Standards			Development Capacity	
				Maximum				
				Density	Intensity (FAR)	Allowed Stories	Dwelling Units	Non-Residential Square Feet
Washington/ Norwalk TOD	8.8	Mixed Use Transit-Oriented Development (TOD)	<b>Mixed Uses:</b> <ul style="list-style-type: none"><li>▪ Multi-Family</li><li>▪ Commercial services and retail/ restaurants</li></ul>	60	2.00	6	422	38,300
Metrolink TOD	10.7						582	70,400
MC&C Site	9.7			Mixed Use	40	1.25	4	306
Koontz Site	6.2	Medium Density Residential	Multi-Family (townhomes, tuck-under, live-work)	25	N/A	3	156	N/A
	8.4	Commercial or Business Park	Neighborhood Shopping Center or Business Park	N/A	0.35	2	N/A	110,500
Total	43.8			Total			1,542	276,400

Source: City of Santa Fe Springs and MIG, March 2021.

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### 3.6 – INTENDED USES OF THIS EIR

The programmatic planning framework proposed in the General Plan Update would not result in the immediate construction of any new development nor entitlement of any new project. All new development within the City will continue to be subject to the City's permitting, approval, and public participation processes. Elected and appointed officials along with City Staff will review subsequent project applications for consistency with the General Plan, applicable Specific Plans, and the Zoning Ordinance, and will prepare appropriate environmental documentation to comply with CEQA and other applicable environmental requirements.

Pursuant to Section 15168 of the State CEQA Guidelines, this EIR is a Program EIR as it relates to the General Plan Update. The goals, policies, land use designations, implementation programs, and other substantive components of the General Plan and implementing sections of the Zoning Ordinance comprise the "program" evaluated in this Program EIR. The EIR also addresses potential site-specific impacts of conceptual development of the four key opportunity sites. Subsequent activities undertaken by the City and project proponents to implement the General Plan will be examined and consider this Program EIR to determine the appropriate level of environmental review required under CEQA. Subsequent implementation activities may include but are not limited to the items listed below.

- Rezoning of properties to achieve consistency with the General Plan.
- Updating and approval of Specific Plans and other development plans and planning documents, including evaluation of development proposals on the four key opportunity sites.
- Review and approval of general plan amendments, specific plans, and zone changes.
- Approval of tentative maps, variances, conditional use permits, and other land use permits and entitlements.
- Approval of development agreements.
- Approval of facility and service master plans and financing plans.
- Approval and funding of public improvement projects.
- Approval of resource management plans.
- Issuance of permits and other approvals needed for implementation of the General Plan.
- Issuance of permits and other approvals needed for public works and private development projects.

As the Lead Agency, the City also intends this EIR to serve as the CEQA-required environmental documentation for consideration by other Responsible Agencies and Trustee Agencies that may have limited discretionary authority over future projects affected by the General Plan. Following certification of this Program EIR and adoption of the General Plan by the lead agency (City of Santa Fe Springs), other agencies may use this Program EIR in the approval of subsequent implementation activities. These agencies may include but are not limited to those listed below.

#### Local Agencies

- City of Whittier
- City of La Mirada
- City of Norwalk
- City of Pico Rivera

- County of Los Angeles
- City of Downey
- City of Cerritos
- Gateway Cities Council of Governments

**Regional and State Agencies**

- Los Angeles County Local Agency Formation Commission (LAFCO)
- Los Angeles County Flood Control and Water Conservation District
- Los Angeles County Metropolitan Transportation Authority
- Los Angeles County Sanitation Districts
- Southern California Association of Governments (SCAG)
- California Department of Fish and Wildlife
- California Department of Conservation
- California Department of Housing and Community Development (HCD)
- California Department of Transportation (Caltrans)
- California Department of Toxic Substance Control
- Regional Water Quality Control Board, Los Angeles Region
- South Coast Air Quality Management District

**Federal Agencies**

- U.S. Fish and Wildlife Services
- U.S. Army Corps of Engineers

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## **4.1 – Aesthetics**

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This EIR chapter addresses aesthetic impacts that could result from implementation of the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are identified by the CEQA Guidelines such as whether the GPTZCU may have an adverse effect on a scenic vista, damage scenic resources, degrade the visual character or quality within the Planning Area and surrounding areas, or have the potential to create substantial light and glare.

### **4.1.1 – ENVIRONMENTAL SETTING**

Santa Fe Springs is located in southeast Los Angeles County, along the Interstate 5 (I-5) corridor, and is bordered by the cities of Downey, Pico Rivera, Whittier, La Mirada, Cerritos, and Norwalk. Santa Fe Springs is strategically located with access to major transportation corridors, including the Interstate 605 (I-605) and Interstate 5 (I-5) freeways. Santa Fe Springs is 14 miles south of downtown Los Angeles and 32 miles north of downtown Santa Ana in Orange County via the I-5 freeway. Santa Fe Springs is also traversed by the Union Pacific and BNSF Railway rail corridors. The City is relatively flat. Elevations in the City range from 60 feet above mean sea level (AMSL) in the southern portion of the City to 177 feet AMSL in the northern and northeastern portions of the City. There are no pronounced hillsides within the Planning Area. The Puente Hills are located approximately 2 miles to the northeast of the Planning Area in and near the City of Whittier. The San Gabriel Mountains are located approximately 20 miles to the north; the Santa Ana Mountains are located approximately 20 miles to the southeast, and the San Bernardino Mountains are located approximately 45 miles to the east.

#### **Scenic Vistas**

Scenic vistas are defined in this document as natural landscapes that provide views of unique flora, geologic, or other natural features that are generally free from urban intrusions. Typical scenic vistas include views of mountains and hills, large, uninterrupted open spaces, and water bodies. Scenic vistas generally play a large role in the way a community defines itself and also affects development patterns as projects are designed to take advantage of viewsheds. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of the vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The Puente Hills are visible to the northeast of the Planning Area. The Puente Hills are the major topographic and open space feature in the area. The Puente Hills can be seen from many locations within the Planning Area. However, these views are partially obstructed by existing development, trees, and roadway features. Similarly, partially obstructed views of the San Gabriel Mountains, Santa Ana Mountains, and San Bernardino Mountains exist within the Planning Area as well.

#### **Scenic Resources**

While scenic vistas form a complete viewshed, scenic resources are occurrences of aesthetically pleasing natural features such as rock outcroppings, trees, prominent ridgelines, slopes, and hilltops. Scenic resources can also be man-made, such as architecturally distinctive or historic buildings, historic points of interest, or historic roadways or highways. The Planning Area does not have any examples of natural scenic resources such as rock outcroppings, trees,

prominent ridgelines, slopes, and hilltops. However, the Planning Area does include many architecturally distinctive or historic buildings and historic points of interest.

**Historical Context.** Santa Fe Springs has a long and rich history, evolving from its early period as an agricultural community to its current form as an industrial city. Before the arrival of Spanish settlers in the 1700s, the area that would later become Santa Fe Springs was occupied by the Tongva People, including a village called Sejatnga near the current City of Whittier and the San Gabriel River. The area was part of the early Spanish rancho of Jose Manuel Nieto, the holder of the largest Spanish land grant in California, stretching from the Pacific Ocean to the Puente Hills (Santa Fe Springs, 2020). The following highlight key aspects in the City's history:

- *Los Nietos Township.* A Spanish Land Grant to Jose Manuel Nieto in 1784 marked the arrival of Europeans. According to Colonel J.J. Warner, the community of Los Nietos had 200 residents in 1836. In 1867, a post office, two stores, a schoolhouse, and a saloon were established. The principal crops and livestock were corn, barley, beans, sheep, and hogs.
- *Fulton Wells.* In 1874, Dr. James E. Fulton discovered a sulfur spring and developed a health spa and small hotel in present-day Santa Fe Springs, generating a modest tourism industry. The community was called Fulton Wells.
- *Railroads.* The Atchison, Topeka & Santa Fe Railway purchased land from Dr. Fulton in 1886 to develop a railroad line from Los Angeles to San Diego. The City's name derives from the Atchison, Topeka & Santa Fe Railway combined with the springs Dr. Fulton discovered. The arrival of German immigrants and the establishment of a Quaker Colony resulted in the establishment of the adjacent town of Whittier. In the 1890s, the Southern Pacific Railroad built a train depot in Whittier, branching off from its main line in Santa Fe Springs. The Southern Pacific Railroad's Whittier line served commuters between Los Angeles, Huntington Park, and intermediate communities, passing through Santa Fe Springs on its way to the Whittier depot. The Pacific Electric Railway's La Habra-Yorba Linda line opened in 1911 with a bridge crossing the San Gabriel River and the electrical substation located near Norwalk Boulevard, both of which are still intact as of 2020. This line later closed in 1938 due to poor ridership. The service of three railroad systems contributed to Santa Fe Springs' regional prominence as an industrial and manufacturing hub. In 1914, Los Nietos was described in the Los Angeles Times as "strategically located as a manufacturing center with railways, water, and electric current." All three rail lines came together at the Los Nietos Junction.
- *Oil.* In 1907, a local sheepherder, Marius Meyer, invited the Union Oil Company to poke around his land in search for oil. After two unsuccessful wells, a third well near the intersection of Norwalk Boulevard and Telegraph Road started flowing at 3,000 barrels a day. Another rancher, Alphonzo Bell, was also certain oil was on his land. Standard Oil declined his request to search for oil on his ranch, but it was later determined that two-thirds of Bell's property was atop one of the world's richest pools of oil. In 1921, the Union-Bell well set off an oil rush by major oil companies with a 2,500-barrel gusher. Within a year, the Santa Fe Springs oil field was considered one of the richest sources of oil in petroleum history. Oil remained Santa Fe Springs' primary economic driver into the 1980s.

**Historical Points of Interest.** Santa Fe Springs' historical points of interest include Santa Fe Springs, 2020):

- *Clark Estate.* Famed architect Irving Gill built the Clarke Estate for Chauncey and Marie Rankin Clarke between 1919 and 1921. The 8,000-square-foot residence is built around a central courtyard decorated with Tuscan-style columns and arches, on 60 acres of citrus groves. The Clarks lived at the estate briefly as they were annoyed by the discovery of oil close to their home. Many of Irving Gill's buildings have been destroyed across Southern California; thus, the Clarke Estate represents a unique resource. The Clark Estate was listed on the National Register of Historic Places in 1990. The City owns and operates the Clark Estate.
- *Hathaway Ranch Museum.* The Hathaway Ranch Museum is a private museum holding farming, ranching, and oil drilling equipment from the late 1800s to the mid-1900s. The museum provides hayrides, antique engine demonstrations, and tours.
- *Heritage Park.* Heritage Park is a six-acre, reconstructed ranch estate from the late 1800s. The park is located within a corporate center and features a museum and railroad exhibit. The park is currently operated by the Santa Fe Springs Community Services Department and is available by reservation. The park showcases its historic past with many historic buildings, the railroad exhibit, Tongva exhibit, and educational experiences.
- *Historical Railroad Exhibit.* The Historical Railroad Exhibit located at Heritage Park presents a cross-section of local railroad history. The exhibit uses a restored No. 870 locomotive and historical railroad equipment and buildings to demonstrate the importance of the railroad to the Southern California region.

The nearby cities of Norwalk and Whittier also feature historical buildings, museums, and neighborhoods demonstrating the area's cultural and economic history. The City of Norwalk maintains the D.D. Johnston-Hargitt House Museum and Gilbert Sproul Museum, both of which display historical artifacts and heirlooms donated by local families prominent in the 19th and 20th centuries. Whittier's Historic Uptown includes many structures dating back to the late 1800s and early 1900s, and structures built in the 1930s and 1940s are concentrated in the western area of Whittier. There are no historic roadways or State designated scenic highways within the Planning Area. Santa Fe Springs does not currently have a historic preservation ordinance, nor has it enacted policies aimed at protecting privately owned historic resources. There are no comprehensive surveys or inventories that identify any potential locally significant historic resources (Santa Fe Springs, 2020).

### **Visual Character**

The visual character of the Planning Area varies by location as there are distinct districts and neighborhoods that exhibit their own nature and character. Residential uses within the City are primarily concentrated in the western part of the City. Except for a cluster of residential uses along Telegraph Road, residential uses are generally located along the western and eastern borders of the Planning Area. There are no existing residential uses south of Imperial Highway (Santa Fe Springs, 2020). Orr and Day Road provides a good representation of many of Santa Fe Springs' residential communities. Most homes along Orr and Day Road were built in the 1950s on lots averaging approximately 5,000 square feet. Santa Fe High School is also located along Orr and Day Road, directly serving the largest residential neighborhood in the City. Multi-family residential uses (more than one unit per development/lot) occur along major roads and intersections such as Florence Avenue and Pioneer Boulevard in the western part of the City.



Commercial uses are primarily concentrated around the borders of Santa Fe Springs, such as along Washington Boulevard, around the intersection of Telegraph Road and Carmenita Road, and Telegraph Road and Orr and Day Road (Promenade Shopping Center and Orr and Day Shopping Center). Industrial uses are centrally located in Santa Fe Springs, spanning the entire length of the City. Some commercial and residential uses lie scattered among industrial uses (Santa Fe Springs, 2020).

The residential neighborhoods feature smaller building footprints, with a mix of smaller single-family homes and multi-family residences (Santa Fe Springs, 2020). The industrial core is characterized by large building footprints. The largest industrial parcels and buildings are concentrated around Norwalk Boulevard and Los Nietos Road, Florence Avenue and Norwalk Boulevard, Bloomfield Avenue, Santa Fe Springs Road and Slauson Avenue, and Carmenita Road and Imperial Highway. Many industrial buildings are set back from the road, with large surface parking lots. Train spurs from the Union Pacific and BNSF Railway connect to many industrial businesses and buildings.

The Planning Area contains little vacant land mainly located near Bloomfield Avenue and Telegraph Road and Greenleaf Avenue and Los Nietos Road. Vacant lots across the Planning Area vary greatly in size. Some vacant properties are relatively large, having previously been used for light industrial, heavy industrial, and warehousing and logistics uses. Santa Fe Springs is built out, with few vacant lots.

### **Night Skies**

The Planning Area is generally built out with scattered open space and undeveloped parcels. Night skies are dominated by urban and suburban lighting in the more developed portions of the Planning Area. During the day, sunlight reflecting from roadways and structures is a primary source of glare, while nighttime light and glare consist of both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, interior lighting, decorative landscape lighting, and streetlights. The principal mobile source of nighttime light and glare is vehicle headlamp illumination.

#### **4.1.2 – REGULATORY FRAMEWORK**

##### **State**

**California Scenic Highway Program.** Created by the California Legislature in 1963, the Scenic Highway Program was established to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A scenic highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. When a City or County nominates an eligible scenic highway for official designation, it defines the scenic corridor, which is land generally adjacent and visible to a motorist on the highway. State Laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.

## Local

**2021 General Plan Update.** The City’s General Plan Update contains the following policies and programs which address scenic vistas, visual quality scenic resources, visual quality, scenic highways, and light and glare:

### *Land Use Element*

**Goal LU-1: A balanced community of thriving businesses, healthy neighborhoods, excellent community facilities, and interesting places.**

**Policy LU-1.1: Small Community Character.** Retain the City’s small-town character by maintaining the scale of established residential neighborhoods and integrating new residential development into the community fabric.

**Policy LU-1.3: Downtown.** Create a thriving Downtown District that supports a complementary mix of residential and non-residential uses and provides community gathering spaces.

**Policy LU-1.5: Land Use Transitions.** Apply appropriate screening, buffers, transitional uses, and other controls to transition industrial and commercial uses to any adjacent residential uses and thus reduce potential noise and air pollution impacts.

**Goal LU-6: Neighborhoods that offer a diversity of housing types and community services.**

**Policy LU-6.7: Neighborhood Character.** Preserve and enhance the single-family nature of the community.

**Goal LU-7: A centrally located and vibrant downtown.**

**Policy LU-7.1: Main Street Environment.** Create a main street environment by integrating business, residential, hospitality, commercial, and public uses, and designing building(s) and the street(s) and sidewalks to create a pedestrian-friendly, walkable environment with strong social and civic connections.

**Policy LU-7.3: Placemaking.** Create a pleasurable, vibrant downtown environment by focusing on thematic design elements: unique streetscapes, gateways, landmarks, wayfinding systems, public art, street trees and landscaping, public spaces, enhanced street corners, and urban green spaces.

**Policy LU-7.4: Gathering Places.** Activate downtown by creating places for people to socialize in flexible public spaces for community events and activities, such as street fairs, farmers’ markets, arts festivals, celebrations, concerts, and other special events.

**Policy LU-7.5: Day/Night Environment.** Make downtown a day/night place with residences, restaurants, commercial service businesses, and entertainment venues.

**Policy LU-7.6: Rich Cultural Environment.** Integrate public art that contributes to the civic and cultural life of the City, and that reflects the City’s history and heritage.

**Goal LU-9: Quality open spaces and urban greenery citywide.**

**Policy LU-9.1: Parks and Open Space.** Preserve, protect, and maintain parks and recreation facilities as critical spaces in Santa Fe Springs, recognizing that such uses contribute to a local high quality of life.

**Goal LU-11: Well-designed, attractive business districts and neighborhoods.**

**Policy LU-11.2: Public Art.** Encourage public artwork within public rights-of-way, along streetscapes, at gateways, and integrated into private projects in a manner visible to the public and encourages the City's cultural and historical elements.

**Policy LU-11.3: Community Image.** Encourage a unique and consistent community image that celebrates Santa Fe Springs' cultural and historic heritage and incorporates sustainable development approaches.

**Policy LU-11.4: Visual Character.** Encourage development that enhances the visual character, quality, and uniqueness of residential neighborhoods and commercial and industrial districts.

**Policy LU-11.5: Trees and Landscaping.** Encourage visually attractive residential neighborhoods by expanding climate-appropriate street trees and other types of streetscape and hardscape, and by using attractive drought-tolerant landscaping.

**Policy LU-11.6: Industrial Design.** Insist upon distinctive architecture, landscaping, and shade trees along street frontages and on private property that defines the character of industrial and commercial districts.

**Policy LU-11.7: Vibrant Streetscapes.** Design streetscapes to provide an opportunity to blend business, transportation, and users into a vibrant, unified space through placemaking, public art, lighting, landscaping, and gateway entry elements, and to reduce visual clutter.

**Policy LU-11.8: Neighborhood Context.** Consider adjoining neighborhood context when planning new residential uses.

**Policy LU-11.9: Underground Utility Poles.** Establish strategies and programs to gradually place utilities underground throughout the City, with special emphasis on corridors.

**Policy LU-11.12: Light Pollution.** Minimize light pollution by limiting the amount and type of lighting within new developments.

*Circulation Element*

**Goal C-6: Street designs that accommodate transportation modes and users of all abilities.**

**Policy C-6.4: Context Sensitive Street Design:** Maintain and implement street system standards for roadway and intersection classifications, right-of-way width, pavement width, design speed, capacity, and associated features such as landscaping buffers and building setback requirements.

**Policy C-6.7: Green Streets:** Integrate a green street approach into street improvements to address/include stormwater management, urban greenery, and sustainable landscaping improvements.

**Policy C-6.8: Streetscape Aesthetics.** Promote an enhanced aesthetic image through streetscaping, median improvements, and careful implementation of non-essential signage.

*Open Space and Conservation Element*

**Goal OSC-3: Celebration of the City's historic, cultural, and artistic richness.**

**Policy OSC-3.1: Outdoor Art Sculptures.** Expand the collection of permanent outdoor sculptures citywide through the Heritage Artwork in Public Places Program. Ensure that future artwork additions are appropriate, of superior quality, adequately funded, maintained, placed in unrestrictive settings, and representative of Santa Fe Springs' culture and aesthetic.

**Municipal Code.** Title XV, Land Use, Chapter 155 Zoning establishes City-wide setbacks, parking, sign standards, building height limits, and building densities that affect public and private views except for specific plans that provide separate design and planning standards for development within the specific plan areas.

#### 4.1.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

- A. Has a substantial adverse effect on a scenic vista.
- B. Substantially damages scenic resources, including but not limited to trees, rock outcroppings or historic buildings within a state scenic highway.
- C. In non-urbanized areas, substantially degrades the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
- D. Creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
- E. Would cause substantial adverse cumulative impacts with respect to aesthetics.

#### 4.1.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to aesthetics, which could result from the implementation of the Project, and recommends mitigation measures as needed to reduce significant impacts.

##### Scenic Vistas

##### ***Impact AES-1 - Would the GPTZCU have a substantial adverse effect on a scenic vista?***

##### **Analysis of Impacts**

##### City-Wide

The Puente Hills are visible to the northeast of the Planning Area. The Puente Hills are the major topographic and open space feature in the area and can be seen from many locations within the Planning Area. However, these views are partially obstructed by existing development, trees, and roadway features. Similarly, partially obstructed views of the San Gabriel Mountains, Santa Ana Mountains, and San Bernardino Mountains exist within the Planning Area as well. Although such obstructions are usually minimal in nature, they do exist, and they are typical of any type of built/urbanized environment. As the Planning Area continues to develop based on the General Plan and Targeted Zoning Code Update (GPTZCU), existing views in the City will continue to have minimal to partial obstruction. Although the GPTZCU will over time result in somewhat more intensive and higher density uses, impacts, if any, on scenic vistas would be minimal given the considerable distance of the Planning Area to some of these

#### 4.1 – Aesthetics

scenic features and the fact that these views are already affected by the existing built environment of the City and region.

##### Key Opportunity Sites

Visually, the Washington/Norwalk and Metrolink sites are both in urbanized settings. the Washington site is surrounded by a mixture of residential and commercial uses. The Metrolink site is bounded by light industrial uses to the north and east with commercial uses to the west and multi-family uses to the south (these later uses are within the City of Norwalk). The opportunity sites are to be developed with mixed-use or higher density residential uses. The General Plan will encourage attractive, high quality design that will be visually consistent and generally compatible with land uses surrounding each site.

Three of these sites are already developed with urbanized uses although the MC&C site is currently vacant. Development of these four opportunity sites to the City's urban standards (e.g., height, lot coverage, setbacks, landscaping) will not result in significant impacts to scenic vistas, which are limited from these sites similar to overall urban visual conditions city-wide. Therefore, impacts will be less than significant, and no mitigation will be required with regulatory compliance (i.e., zoning code) and implementation of appropriate development standards.

##### GPU Policies

Although the City does not have extensive scenic vistas outside of the City, various goals and policies of the General Plan Update emphasize maintaining and creating new attractive views within the City, emphasizing pleasant and attractive views of the City's urban context. **Land Use Element Goal LU-1** and its policies LU-1.1 through LU-1.5 strive to provide balanced land uses that support the community, emphasizing its small-town character and providing appropriate buffers between adjacent land uses. Policy LU 1.3, and Goal LU-7 and its policies LU-7.1 through 7.7, encourage enhancing and expanding activities in the downtown area to make this a truly central feature of the City. Goal LU-9 and Policy LU-9.1 focus on maintaining and creating new open spaces to provide restful views and help soften urban views. Finally, Goal LU-11 emphasizes public art and ways to improve the appearance of all areas of the City, including roadways.

In addition, **Circulation Element** Goal C-6 and its policies strive to improve views along streets, while **Open Space and Conservation Element** Goal OSC-3 and Policy OSC-3 encourage outdoor public art to enhance views within the City.

With implementation of these goals and policies, potential impacts of the GPTZCU with respect to scenic vistas, both City-wide and for the Key Opportunity Sites, would be less than significant.

##### **Level of Significance Before Mitigation**

Less than significant.

##### **Mitigation Measures**

None required.

##### **Scenic Resources/Scenic Highways**

***Impact AES-2 - Would the GPTZCU substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

**Analysis of Impacts**

City-Wide

The nearest official state-designated scenic highway is SR-2 which is located more than 22 miles northwest of the Planning Area in the San Gabriel Mountains. Due to the distance and intervening terrain, development within the City of Santa Fe Springs would not be visible to motorists on SR-2. In addition, SR-39 is the closest state eligible scenic highway to the City of Santa Fe Springs. At its nearest point (just north of the I-210 freeway) it is approximately 16 miles northeast of the Planning Area. Due to the presence of intervening development and the Puente Hills, the Planning Area would not be visible looking south along the segment of SR-39 in the City of Azusa. Even on forest service lands at higher elevations north of Azusa, the proposed Planning Area would still not be visible due to intervening terrain. It should be noted that SR-39 traverses the canyons of the San Gabriel Mountains and adjacent terrain limits the availability of particularly long views to the south.

The Planning Area does not have any examples of natural scenic resources such as rock outcroppings, trees, prominent ridgelines, slopes, and hilltops. The Planning Area does include many architecturally distinctive or historic buildings and historic points of interest; however, as stated above none of these historic buildings and points are visible from a state scenic highway.

Key Opportunity Sites

Section 4.1.4.a above describes the four opportunity sites in terms of location, existing and proposed land uses, and surrounding land uses. These four sites are in urbanized settings and one site is vacant at present (MC&C site). None of these sites contain or would damage scenic resources if developed. Development of these four opportunity sites to urban standards (e.g., height, lot coverage, setbacks, landscaping) would result in buildings that would not be visible from either SR-2 or SR-39 as discussed above. In addition, none of the opportunity sites contain any architecturally distinctive or historic buildings or historic points of interest (i.e., scenic resources). Therefore, development of the four key opportunity sites would have no significant impacts on scenic resources related to a scenic highway.

GPU Policies

As discussed in Section 4.1.4.a above, the City does not have extensive scenic vistas outside of the City, nor are there any designated or eligible scenic highways within or proximate to the City. The various goals and policies of the General Plan Update outlined in Section 4.4.4.a above emphasize attractive views within the City urban context. Therefore, the General Plan Update goals and policies outlined in Section 4.1.4.a above also apply indirectly to scenic resources within the City. Most critical are those that help preserve historical structures, create public art, and seek to enhance views (and thus scenic resources) throughout the City. Therefore, implementation and development of the proposed GPTZCU or development of the Key Opportunity Sites would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and potential impacts would be less than significant.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Existing Visual Character**

***Impact AES-3 - Would the GPTZCU substantially degrade the existing visual character or quality of the site and its surroundings?***

### **Analysis of Impacts**

#### City-Wide

Buildout of the Planning Area is anticipated to occur over a period of approximately 20 years. Temporary impacts to the visual character and quality of the Planning Area could occur during construction activities, although they would be limited and temporary in nature. Typical construction activities would include site preparation, grading, installation of public and private utilities, building construction, application of architectural coatings, paving of surface parking areas, public improvements, and installation of landscaping, and roadway improvements. Construction equipment including, but not limited to, backhoes, excavators, graders, rubber-tired dozers, crushing machines for concrete and asphalt, and hauling trucks and materials may be present during construction activities. Construction equipment would be required to adhere to City of Santa Fe Springs Municipal Code restrictions for blocking traffic (Section 96.075) and would not be allowed to obstruct access to surrounding streets.

During future construction activities, implementing development project sites would undergo temporary transformations in visual character. For example, at the onset of construction, structures and asphalt parking lots would be demolished and sites would be graded. During future construction, vacant graded sites would be a temporary visual experience to receptors as the pouring of building foundations and framing of buildings during vertical construction would reintroduce permanent vertical forms to the project site. This characterization would also be temporary until building construction, paving and site landscaping are completed.

Visual changes to implementing development project sites would be experienced temporarily and implementing development project sites would progressively transition from active construction zones to finished development. Due to the temporary nature of construction, the visual changes anticipated during construction stages of future implementing development projects within the Planning Area would not be permanent and would not substantially degrade its visual character or the visual character of surrounding areas. The GPTZCU includes Public Realm design standards and guidelines for public rights-of-way and Private Realm standards and guidelines for general building and site design.

#### Key Opportunity Sites

Section Impact AES-1 above describes the four opportunity sites in terms of location, existing and proposed land uses, and surrounding land uses relative to visual impacts. These four sites

are in urbanized settings although the MC&C site is currently vacant. None of the opportunity sites contain any scenic resources such as trees, rock outcroppings, or architecturally significant buildings. In addition, the uses surrounding the four sites are extensively urbanized and do not contain or represent visual resources. Therefore, development of the four key opportunity sites would have no significant impacts on the visual character of the City.

### GPU Policies

Various goals and policies of the General Plan Update strive to maintain the City's visual character along with its historical and cultural context **Land Use Element** Goal LU-1 and its policies LU-1.1 through LU-1.5 work to provide balanced land uses that support the community, emphasizing its unique community character and providing appropriate buffers between adjacent land uses. Policy LU 1.3, and Goal LU-7 and its policies LU-7.1 through 7.7, encourage enhancing and expanding activities in the downtown area to make this a truly central feature of the City. Goal LU-9 and Policy LU-9.1 focus on maintaining and creating new open spaces to provide restful views and help soften urban views. Finally, Goal LU-11 emphasizes public art and ways to improve the visual character of all areas of the City, including roadways.

In addition, **Circulation Element** Goal C-6 and its policies strive to improve views along streets, while **Open Space and Conservation Element** Goal OSC-3 and Policy OSC-3 encourage outdoor public art to enhance views within the City.

With adherence to GPTZCU standards and guidelines, future developments would not substantially degrade the existing visual character or quality of the Planning Area and its surroundings, including the four key opportunity sites. All impacts would be less than significant.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

No mitigation is required.

### **Light and Glare**

***Impact AES-4 - Would the GPTZCU create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

### **Analysis of Impacts**

#### City-Wide

Existing lighting within the Planning Area is typical for urbanized areas during nighttime hours and includes streetlights, traffic signals, security lighting around businesses and homes, auto headlights, and illuminated business signs. New uses and developments may result in an increase in the number of lighting sources currently within the Planning Area although, given that it is already developed, such increases are expected to be minimal in nature.



#### 4.1 – Aesthetics

Implementation of the proposed GPTZCU is not anticipated to result in the introduction of new sources of substantial light and glare to the Planning Area that would affect existing daytime views. While future implementing development project components would include windows and other glass features and may include exterior metallic elements and trims (i.e., exterior staircases associated with parking structures, shade structures for retail developments, residential balcony railings, etc.), these elements would be relatively minor in the context of the Planning Area and would be similar to existing architectural elements present in the surrounding area. Further, future projects within the Planning Area would be subject to the lighting and glare restrictions of the City of Santa Fe Springs Municipal Code (Sections 155.432 & 155.496).

#### Key Opportunity Sites

Section Impact AES-1 above describes the four opportunity sites in terms of location, existing and proposed land uses, and surrounding land uses. These four sites are in urbanized settings although the MC&C site is currently vacant. All of the sites except the MC&C site have developed uses that contain lighting and reflective surfaces at present. New development would add new sources of light and glare to each site the extent of which would depend on the type and size of the planned development. New non-residential development where residential uses are adjacent would have to be carefully designed in terms of new lighting and reflective surfaces to minimize impacts on adjacent or nearby residences. However, it should be noted that the land uses surrounding all four sites are extensively urbanized. As long as new lighting and reflective surfaces comply with Municipal Code Sections 155.432 & 155.496 and other applicable development standards, no significant light or glare impacts are anticipated from any of the four opportunity sites.

#### GPU Policies

The Land Use Element of the General Plan Update has the following specific goal and policy that address light and glare:

**Goal LU-11: Well-designed, attractive business districts and neighborhoods.**

**Policy LU-11.12: Light Pollution.** Minimize light pollution by limiting the amount and type of lighting within new developments.

With implementation of GPTZCU Goal LU-11 and Policy LU-11.13, and the City's development requirements and regulations, potential impacts with respect to light and glare, in the City, including the four opportunity sites, would be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Cumulative Impacts**

***Impact AES-5 - Would the GPTZCU cause substantial adverse cumulative impacts with respect to aesthetics?***

## Analysis of Impacts

**Scenic Vistas-** A cumulative impact to scenic vistas would occur if the combined visual changes from future development within the Planning Area resulted in the substantial degradation of quality or obstruction of particularly scenic views available from a recognized scenic vista. Project-specific impacts with respect to scenic vistas were determined to be less than significant. As stated in Section 4.1.1 above, the Puente Hills are visible to the northeast of the Planning Area. The Puente Hills are the major topographic and open space feature in the area. The Puente Hills can be seen from many locations within the Planning Area. However, these views are partially obstructed by existing development, trees, and roadway features. Similarly, partially obstructed views of the San Gabriel Mountains, Santa Ana Mountains, and San Bernardino Mountains exist within the Planning Area as well. Although such obstructions are usually minimal in nature, they do exist, and they are typical of any type of built/urbanized environment. Buildout in the City under the GPTZCU, including the four key opportunity sites, would occur over a period of up to 20 years and at locations throughout the Planning Area. Since the Planning Area is a completely urbanized area that is already developed, it is unlikely that incremental changes from implementation of the GPTZCU would result in cumulative impacts with respect to scenic vistas. Potential cumulative impacts of the GPTZCU, including the opportunity sites, would be less than significant.

**Scenic Highways-** There are no scenic highways within, adjacent to, or visible from the Planning Area (i.e., no eligible or officially designated state scenic highways. Therefore, development within the Planning Area would not result in impacts to scenic resources within a state scenic highway. Therefore, the proposed GPTZCU would not contribute to a potential cumulative significant impact to a scenic highway. Potential impacts of the GPTZCU including the opportunity sites would be less than significant.

**Degrade Visual Character-** Construction and operation of future projects within the Planning Area was determined to result in less than significant impacts to the existing visual character and quality of the Planning Area and surrounding area. Future development projects considered in the cumulative scenario would generally be subject to the City's underlying zoning standards that include regulations pertaining to permitted uses, minimum lot dimensions, and maximum building height. The GPTZCU includes Public and Private Realm standards and design guidelines. Future projects within the Planning Area, including the four opportunity sites, would be subject to the GPTZCU which encourages attractive, high quality development. Therefore, future development would not result in significant adverse visual changes such that the existing visual character or quality of project sites and their surroundings would be substantially degraded. As such, the proposed GPTZCU would not result in cumulative significant impacts that would degrade the existing visual character or quality of the area and its surroundings. Potential impacts of the GPTZCU including the opportunity sites would be less than significant.

**Light and Glare-** Project-related impacts with respect to light and glare were determined to be less than significant. Lighting and building materials associated with cumulative development would be subject to review and approval by the City of Santa Fe Springs Planning and Police Services Departments. If detailed information regarding proposed lighting and building materials are not known during preparation of necessary environmental documentation for cumulative projects, then the adoption of applicant-proposed measures or mitigation measures would likely be required by the City of Santa Fe Springs to ensure that lighting and glare impacts are less

#### 4.1 – Aesthetics

than significant. Therefore, cumulative impacts of the GPTZCU, both City-wide and for the four Key Opportunity Sites, would be less than significant.

##### **Level of Significance Before Mitigation**

Less than significant.

##### **Mitigation Measures**

No mitigation is required.

#### **4.1.5 – REFERENCES**

City of Santa Fe Springs. *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*. Prepared by MIG. August 2020.

California Department of Transportation (Caltrans). Map of Scenic Highways.  
<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983> [website accessed June 2021]

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## **4.2 – Agriculture and Forestry Resources**

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This EIR chapter addresses impacts to agriculture and forest resources that could result from implementation of the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are identified by the CEQA Guidelines such as whether the GPTZCU will convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use or a Williamson Act contract; conflict with existing zoning for or rezoning of forest land or timberland; result in the loss of forest land or conversion of forest land to non-forest use or involve other changes in the existing environment could result in conversion of farmland or forest land to non-agricultural or non-forest use.

### **4.2.1 – ENVIRONMENTAL SETTING**

The City of Santa Fe Springs Zoning Code includes only one zone for agricultural uses and activities, the A-1 Light Agriculture Zone (Santa Fe Springs 2020). The historical purpose of the Light Agricultural Zone is to provide for the proper utilization of those lands best suited for agricultural purposes and to prevent the encroachment of incompatible uses. The Light Agricultural Zone was traditionally used as a transitional classification for open or agricultural land pending classification for more permanent use. This was common in the past when the City had more acreage in active agriculture; however, there are only two areas left in the City with A-1 zoning. Most of the A-1 land is located in a long narrow strip along the east side of the San Gabriel River Trail on the western edge of the Planning Area. There is also a small area of land designated A-1 Light Agriculture at the Los Nietos Community and Senior Center on Slauson Avenue. Neither of these areas currently support any large-scale or commercial agriculture, and these are the only two locations within the Planning Area that are zoned for agricultural uses.

#### **Important Farmland**

The California Department of Conservation (DOC) maps all lands in the State that are considered Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance, or Grazing Lands in their Farmland Mapping and Monitoring Program (FMMP)(DOC, 2020a). According to the DOC's Important Farmland Finder, the entire Planning Area is designated as "not mapped" meaning there is no land in the Planning Area considered Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance or Grazing Lands (DOC, 2020a). This includes the two small areas of the City that are currently zoned A-1 Light Agriculture.

#### **Williamson Act Contracts**

According to the California Department of Conservation, Williamson Act reports and statistics, there are no Williamson Act Land Conservation Contract lands within the City, the Sphere of Influence, or surrounding areas (DOC, 2020b). The lands in the Planning Area are classified as Non-Enrolled Land or Urban and Built-Up Land.

### Existing Agricultural Uses

The Planning Area is almost completely urbanized and does not include any existing large-scale agriculture or commercial agricultural land uses. As previously discussed, the A-1 Light Agriculture Zone is concentrated mostly in a long narrow strip of land along the San Gabriel River Trail on the western edge of the Planning Area, and there is also a small area of land designated A-1 Light Agriculture at the Los Nietos Neighborhood Facility on Slauson Avenue. These are the only two locations within the Planning Area that are zoned for agriculture although the Planning Area is not mapped as containing any agricultural land by the DOC's FMMP (DOC, 2020a). One area is already developed with commercial, residential and institutional uses. The other area is located at Santa Fe Springs Park but the Community Garden is not mapped as A-1.

### Forest Resources

Forest land is defined in Public Resources Code Section 12220(g) as “land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits”. The Planning Area is built out and contains mostly ornamental trees, grasses, and shrubs common to most urbanized areas in the region. There is no forest land within the Planning Area as defined in Public Resources Code Section 12220(g).

## 4.2.2 – REGULATORY FRAMEWORK

### State

**Farmland Mapping and Monitoring Program.** Important farmland maps are compiled by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), pursuant to the provisions of Section 65570 of the California Government Code. These maps and programs utilize data from the USDA Natural Resource Conservation Service (NRCS) soil survey and current land use information to monitor conversion of important farmland to other uses. The majority of the Planning Area has been mapped by the California Department of Conservation, although no type of farmland is designated within the Planning Area.

**California Land Conservation Act/Williamson Act Contract Program.** The California Land Conservation Act of 1965, also known as the Williamson Act, was adopted in 1965. This voluntary program allows local governments to enter into contracts with private landowners for the purpose of having their property assessed on the basis of its agricultural production rather than at the current market value. The property owner is thus relieved of having to pay higher property taxes, resulting from conversion of nearby lands to urban uses as long as the contracted land remains in agricultural or related open space use. The purpose of the Williamson Act is to encourage property owners to continue to farm their land with a tax incentive and to prevent the premature conversion of farmland into non-agriculture use. Participation requires that the area consist of 100 contiguous acres of agricultural land under one or more ownerships.

Upon approval of an application by the Board of Supervisors, the agricultural preserve is established, and the land within the preserve is restricted to agricultural and compatible uses for ten (10) years. Williamson Act contracts are automatically renewed annually for an additional one-year period unless the property owner applies for non-renewal or early cancellation. The

Williamson Act also contains limited provisions for cancellation of contracts. Specific findings regarding the non-viability of the agricultural use must be made, and a substantial penalty for the cancellation is assessed. Participating counties and cities are required to establish their own rules and regulations regarding implementation of the act within their jurisdiction. The City of Santa Fe Springs has no land under the Williamson Act and there are no Williamson Act Contracts within the Planning Area.

**California Department of Forestry and Fire Protection (CAL FIRE).** CAL FIRE enforces the laws that regulate logging on privately-owned lands in California. The Forest Practice Act was enacted in 1973 to ensure that logging is done in a manner that will preserve and protect fish, wildlife, forests, and streams. The State Board of Forestry and Fire Protection enacts and enforces additional rules to protect these resources. CAL FIRE ensures that private landowners abide by these laws when harvesting trees. Although there are specific exemptions in some cases, compliance with the Forest Practice Act and Board rules apply to all commercial harvesting operations for landowners. A Timber Harvesting Plan (THP) is the environmental review document submitted by landowners to CAL FIRE outlining what timber is proposed to be harvested, how it will be harvested, and the steps that will be taken to prevent damage to the environment.

## **Local**

**2021 General Plan Update.** Although there is no large-scale or commercial agriculture within the City, the following GPTZCU goal and policy address “urban agriculture” which occurs on individual or small collective lots to benefit community residents.

### **Goal EJ-5: Improved community health and wellness through healthier food options.**

**EJ-5.3: Urban Agriculture.** Promote and expand urban agricultural opportunities within disadvantaged communities, including home gardens, community gardens, urban orchards, and small-lot urban agricultural projects on underutilized sites, park or community facilities, schools, and remnant vacant properties.

**Municipal Code.** Title XV, Land Use, Chapter 155 Zoning establishes the A-1 zone which is the only agricultural use zone in the City.

Principal permitted uses in the A-1 Zone include:

- (A) Farms or ranches for orchards, vineyards, tree crops, field crops, bush and berry crops, vegetable gardening, flower gardening, and plant nurseries.
- (B) Single-family dwellings, not more than one on a lot or parcel of land.
- (C) The keeping of poultry and rabbits for noncommercial purposes; provided, that not more than 12 poultry and four adult rabbits shall be kept on any one lot or parcel.
- (D) Greenhouses and aviaries.
- (E) Supportive housing and transitional housing subject only to those restrictions and processing requirements that apply to other residential dwellings of the same type in this district.
- (F) Manufactured housing.
- (G) Community care facility, small.
- (H) Employee housing, small.

#### 4.2.3 – SIGNIFICANCE THRESHOLDS

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land including the Forest and Range Assessment Project. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

- A. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- B. Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- C. Conflict with existing zoning for, or cause rezoning of forest land as defined by Public Resources Code 12220(g). Timberland (as defined by Public Resources Code Section 4526) or timberland zoned Timberland Production as defined by Government Code Section 51104(g).
- D. Result in the loss of forest land or conversion of forest land to non-forest use.
- E. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.
- F. Cause substantial adverse cumulative impacts with respect to agricultural and forest resources.

#### 4.2.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to Important Farmland, Forestland, and Timberland, which could result from the implementation of the GPTZCU and recommends mitigation measures, as needed, to reduce significant impacts.

##### **Important Farmland**

***Impact AG-1 - Would the GPTZCU convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

##### **Analysis of Impacts**

###### City-Wide

The City, including the Planning Area, was not part of the DOC's FMMP study area (DOC 2018a). There are no Class I or II (prime agriculture) soils within the City limits and limited Class II (potential prime agriculture) soils are located generally in the eastern portion of the City. Most of the soils in the City range from categories III to VII (which vary from "limited agricultural use

potential” to “unsuited for agriculture”) (DOC, 2021). There are no commercial agricultural uses in the Planning Area although there are two parcels zoned for agricultural use. The Planning Area is primarily comprised of commercial, residential, medical office, institutional, industrial, and open space uses. There is minimal vacant land within the Planning Area generally represented by infill sites. The Planning Area contains no prime agricultural soils, designated farmland, or large-scale commercial agricultural uses.

#### Key Opportunity Sites

Three of the Opportunity Sites are developed with urban uses while the MC&C site is currently vacant. All of the sites are in urban settings and do not support agricultural uses. Development of these four opportunity sites to urban standards (e.g., height, lot coverage, setbacks, landscaping) similar to those of surrounding uses, depending on the appropriate zoning classification, will not result in any impacts related to designated farmland or prime agricultural soils as those resources are absent in the City.

#### GPU Policies

The **Environmental Justice Element** of the GPTZCU contains Goal EJ-5 and Policy EJ-5.3 which encourage urban agriculture which is not large-scale commercial farming but rather community-based low-scale generally low-scale agricultural activities like individual or community gardens on isolated lots mainly for the benefit of City residents. Due to a lack of resources in the City, development under the GPTZCU, including development of the Key Opportunity Sites, would not result in any conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

No mitigation is required.

#### **Williamson Act Agricultural Contract**

***Impact AG-2 - Would the GPTZCU conflict with existing zoning for agricultural use, or a Williamson Act contract?***

#### **Analysis of Impacts**

##### City-Wide

The City’s Zoning Code includes a Light Agricultural (A-1) Zone District that is intended to “provide for the proper utilization of those lands best suited for agricultural purposes and to prevent the encroachment of incompatible uses. The Light Agricultural Zone may also be used as a transitional classification for open or agricultural land pending classification for more permanent use. However, there are only two locations within the Planning Area with this designation. The first location, on the south side of Slauson Avenue between Norwalk Boulevard and Dice Road, is completely developed with an institutional use, the Los Nietos Community and Senior Center;. However, there is a community garden located just south of the Santa Fe Springs Aquatic Center. The second location is Santa Fe Springs Park which is



located along the San Gabriel River. This is a public park that is used for sports and passive recreation. There is a commercial nursery located in the northern portion of the park. However, this community garden is not mapped as Important Farmland and there are no Williamson Act contracts with the Planning Area. Further, the proposed GPTZCU does not include any development projects. All future implementing development projects would be subject to environmental review pursuant to CEQA. Since no sites in the Planning Area are under a Williamson Act contract, and because the proposed GPTZCU does not include any development projects, no impact to an agricultural use or Williamson Act contract would occur.

#### Key Opportunity Sites

These four sites are in urbanized settings and only one is vacant at present (MC&C site). Development of these four opportunity sites would not affect any existing A-1 zoning for light agricultural uses or a Williamson Act contract. Therefore, development of the four key opportunity sites would have no significant impacts on agricultural zoning or Williamson Act contracts.

#### GPU Policies

As discussed above, the City has limited agricultural (A-1) zoning and no Williamson Act (agricultural preserve) contracts. However, the **Environmental Justice Element** of the GPTZCU contains Goal EJ-5 and Policy EJ-5.3 which encourage urban agriculture which is not large-scale commercial farming but rather community-based low-scale generally low-scale agricultural activities like individual or community gardens on isolated lots mainly for the benefit of City residents.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

None required.

#### **Forestland/Timberland**

***Impact AG-3 - Would the GPTZCU conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?***

#### **Analysis of Impacts**

##### City-Wide

According to the California Department of Forestry and Fire Protection website, no forest land, timberland, or Timberland Production areas, as defined in the Public Resources Codes (PRC) 12220(g) and 4526 or Government Code 51104(g), are located within, or adjacent to, the Planning Area (Calfire 2021). Therefore, the proposed GPTZCU would not conflict with existing zoning for forest land, timberland, or Timberland Production areas, or result in the loss or conversion of forest lands to non-forest uses, as none exist.

#### Key Opportunity Sites

These four sites are in urbanized settings and only the MC&C site is vacant at present. The City contains no forest resources so development of these four opportunity sites would not have any impacts in that regard.

#### GPU Policies

The City has no forest resources and the proposed GPTZCU contains no goals or policies that address these resources.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

No mitigation required.

#### **Loss of Forestland**

***Impact AG-4 - Would the GPTZCU result in the loss of forest land or conversion of forest land to non-forest use?***

#### **Analysis of Impacts**

##### City-Wide

There are no forest lands within the City, including the Planning Area (City of Santa Fe Springs, 2020). The Planning Area is primarily comprised of commercial, residential, medical office, institutional, industrial, and open space uses. There is minimal vacant land within the Planning Area; generally representing infill sites. Since the Planning Area is currently built out, and no forest lands are in the Planning Area, no conversion of forest land to non-forest use would occur.

#### Key Opportunity Sites

These four sites are in urbanized settings and only one is vacant at present (MC&C site). The City contains no forest resources so development of these four opportunity sites would not have any impacts in that regard.

#### GPU Policies

The City has no forest resources and the proposed GPTZCU contains no goals or policies that address these resources.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

None required.

### Conversion of Farmland/Forestland

***Impact AG-5 - Would the GPTZCU involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?***

### Analysis of Impacts

#### City-Wide

Please refer to responses 4.2.4.a, 4.2.4.b, 4.2.4.c, and 4.2.4.d above. The City's Zoning Code includes a Light Agricultural (A-1) Zone District that is intended to "provide for the proper utilization of those lands best suited for agricultural purposes and to prevent the encroachment of incompatible uses. There are only two small areas in the City that maintain that zoning designation. The City contains no designated Farmland (i.e., Prime, State-wide Important, or Unique). In addition, the City contains no forest resources.

#### Key Opportunity Sites

These four sites are in urbanized settings and only one is vacant at present (MC&C site). The City contains no designated farmland or forest resources, so development of these four opportunity sites would not have any impacts in that regard.

#### GPU Policies

As discussed in Sections 4.2.4.a and 4.2.4.b above, the City has limited A-1 zoning and no Williamson Act (agricultural preserve) contracts. However, the **Environmental Justice Element** of the GPTZCU contains Goal EJ-5 and Policy EJ-5.3 which encourage urban agriculture. As discussed in Sections 4.2.4.c and 4.2.4.d above, the City has no forest resources and the proposed GPTZCU contains no goals or policies that address these resources.

The Planning Area is currently built out and contains no designated farmland or forest lands. Therefore, no conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use or conversion of forest land to non-forest use, either City-wide or in any of the Key Opportunity sites, would occur.

### Level of Significance Before Mitigation

No impact.

### Mitigation Measures

None required.

### Cumulative Impacts

***Impact AG-6 - Would the project cause substantial adverse cumulative impacts with respect to Agriculture and Forestry Resources?***

### Analysis of Impacts

As described in Sections Impact AG-1 through AG-5 above, the proposed GPTZCU would not result in impacts related to agricultural resources, Prime Farmland, Unique Farmland, or Farmland of Statewide Important, Williamson Act contracts, forest lands, timberland, or Timberland Production areas. Because of the developed nature of the Planning Area, and because the GPTZCU would not impact agricultural uses, Farmland, Williamson Act contracts, forest lands, timberland, or Timberland Production areas, the proposed GPTZCU, including development of the four Key Opportunity sites, would not contribute to a cumulatively significant impact related to agriculture and forestry resources.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

No mitigation is required.

#### **4.2.5 – REFERENCES**

California Department of Forestry and Fire Protection (Calfire), State Inventory of Forest Land. <https://www.fire.ca.gov> [Website accessed June 2021] (*Calfire 2021*).

California Department of Conservation (DOC 2020a). Farmland Mapping and Monitoring Program: Important Farmland Finder. Web: <https://maps.conservation.ca.gov/DLRP/CIFF/>. [Accessed October 2020].

California Department of Conservation (DOC 2020b). Williamson Act Program: Reports and Statistics. Web: [https://www.conservation.ca.gov/dlrp/wa/Pages/stats\\_reports.aspx](https://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx). [Accessed October 2020].

City of Santa Fe Springs. *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*. Prepared by MIG. August 2020.

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## 4.3 – Air Quality

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This EIR chapter provides information on the environmental and regulatory air quality setting of the Planning Area and evaluates the potential amount of emissions of regulated air pollutants that could be generated by construction and operation of projects pursuant to the General Plan and Targeted Zoning Code Update (GPTZCU). The methodologies and assumptions used in the preparation of this section follow the CEQA Guidelines developed by the South Coast Air Quality Management District (SCAQMD, 2019a). Information on existing air quality conditions, federal, and State ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This EIR air quality analysis has been closely coordinated with the Energy and Greenhouse Gas analyses in Chapters 4.6 and 4.8, respectively, of this EIR. Please refer to Appendix D for detailed air quality and greenhouse gas emissions estimates (MIG, 2021).

### 4.3.1 – ENVIRONMENTAL SETTING

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

#### South Coast Air Basin

The U.S. EPA and CARB are the federal and State agencies charged with maintaining air quality in the nation and California, respectively. The U.S. EPA delegates much of its authority over air quality to CARB which has geographically divided the State into 15 air basins for the purposes of managing air quality on a regional basis. An air basin is a CARB-designated management unit with similar meteorological and geographic conditions.

The City of Santa Fe Springs is located in the South Coast Air Basin (Basin) which includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The basin encompasses approximately 6,745 square miles of coastal plains and is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

Air quality in the Basin is managed by the SCAQMD. Pursuant to the California Clean Air Act, the SCAQMD is responsible for bringing air quality within the basin into conformity with federal and State air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. SCAQMD works with federal, State, and local agencies to reduce pollutant emissions through adoption and implementation of rules and regulations. Please refer to Section 4.3.2 for a description of the regulatory setting of the Planning Area as it relates to air quality.

#### Basin Climate and Meteorology

The climate of the Los Angeles region is classified as Mediterranean, but weather conditions within the Basin are also dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This temperate climate is occasionally interrupted by extremely hot temperatures during the summer, hot dry westerly “Santa Ana” winds during the fall, and storms from the Pacific northwest during the winter. In addition to the Basin’s topography and geographic location, El Niño and La Niña patterns in the central Pacific Ocean can also have large effects on weather and rainfall received in the Basin between November and March.

The Pacific high-pressure system drives the prevailing winds in the Basin. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is often created over the coastal areas and increases ozone levels. A temperature inversion is created when a layer of cool air is overlain by a layer of warmer air; this can occur over coastal areas when cool, dense air that originates over the ocean is blown onto land and flows underneath the warmer, drier air that is present over land. In the winter, areas throughout the basin often experience a shallow inversion layer that prevents the dispersion of surface level air pollutants, resulting in higher concentrations of criteria air pollutants such as carbon monoxide (CO) and oxides of nitrogen (NO<sub>x</sub>).

In the fall months, the Basin's weather is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada-Utah region that overcomes a westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. These winds can be powerful and persistent during these times.

An El Niño condition is a warming of the surface waters of the eastern Pacific Ocean. It is a climate pattern that occurs across the tropical Pacific Ocean that is usually associated with drastic weather occurrences, including enhanced rainfall in Southern California. Conversely, a La Niña condition is the term for cooler than normal sea surface temperatures across the Eastern Pacific Ocean. The Los Angeles region receives less than normal rainfall during La Niña years.

Throughout the Basin, annual average temperatures vary from the low to middle 60s degrees Fahrenheit (° F). Due to a decreased marine influence, the eastern portion of the Basin shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the Basin, with average minimum temperatures of 47° F in downtown Los Angeles and 36° F in San Bernardino. All portions of the Basin have recorded maximum temperatures above 100° F.

Although the climate of the Basin can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the Basin's climate. Humidity restricts visibility in the Basin. The sulfur dioxide is converted to sulfates and is heightened in the air with high relative humidity. The annual average relative humidity within the Basin is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent with low stratus clouds being a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Rainfall between the months of April and November usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the Basin with frequency being higher near the coast.

The City of Santa Fe Springs' average temperatures range from a high of 89 degrees Fahrenheit in August to a low of 47 degrees Fahrenheit in December. Annual precipitation is approximately 14 inches, falling mostly from January through April (WRCC, 2021).

**Sunlight.** Three-quarters of available sunshine is received in the Basin while the remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. The shortest day of the year has approximately ten hours of possible sunshine, while the longest day of the year has approximately 14.5 hours of possible sunshine.

**Temperature Inversions.** There are two distinct temperature inversion structures that control vertical mixing of air pollution in the Basin. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing that effectively acts as an impervious lid to pollutants over the entire Basin. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO<sub>x</sub> and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants within the basin.

**Wind Patterns.** The distinctive climate of the Basin is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest with high mountains ringing the rest of the Basin.

Wind patterns across the Basin including Santa Fe Springs are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breeze at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

### **Regulated Air Pollutants**

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone (O<sub>3</sub>), particulate matter (PM), which consists of “inhalable coarse” PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or PM<sub>10</sub>) and “fine” PM (particles with an aerodynamic diameter smaller than 2.5 microns, or PM<sub>2.5</sub>), CO, nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. The U.S. EPA refers to these six common pollutants as “criteria” pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally-based criteria and because they are known to cause adverse human health effects and/or adverse effects on the environment (U.S. EPA 2020a and 2020b).

CARB has also established California Ambient Air Quality Standards (CAAQS) for the six criteria air pollutants regulated by the federal Clean Air Act (the CAAQS are more stringent than the NAAQS), plus the following additional air pollutants due to their known adverse effects on human health or the environment (CARB 2020a): hydrogen sulfide (H<sub>2</sub>S), sulfates (SO<sub>x</sub>), vinyl chloride, and visibility reducing particles.

A description of the air pollutants associated with the proposed GPTZCU and its vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the Planning Area such as hydrogen sulfide and visibility reducing particles, are not described below.

- **Ground-level Ozone**, commonly referred to as smog, is not emitted directly into the atmosphere. It is created from chemical reactions between NO<sub>x</sub> and volatile organic compounds (VOCs), also called reactive organic gases (ROG), in the presence of sunlight (U.S. EPA, 2017a). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO<sub>x</sub> and ROG pollution. Ozone irritates the nose, throat, and air



pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.

- **ROG** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA (CARB, 2004).
  - **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as: methane, ethane, and methylene chloride (CARB, 2004).
- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).
  - **PM<sub>10</sub>**, also known as inhalable coarse, respirable, or suspended PM, consists of particles less than or equal to 10 micrometers in diameter (approximately 1/7<sup>th</sup> the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the bloodstream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).
  - **PM<sub>2.5</sub>**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately 1/30<sup>th</sup> the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).
- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of carbon-based fuels. Motor vehicles are the single largest source of carbon monoxide in the Basin. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).
- **Nitrogen Dioxide (NO<sub>2</sub>)** is a by-product of combustion. NO<sub>2</sub> is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO<sub>2</sub> are collectively referred to as NO<sub>x</sub> and are major contributors to ozone formation. NO<sub>2</sub> also contributes to the formation of particulate matter. NO<sub>2</sub> can cause breathing difficulties at high concentrations (U.S. EPA, 2016c).
- **Sulfur Dioxide (SO<sub>2</sub>)** is one of a group of highly reactive gases known as SO<sub>x</sub>. Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO<sub>2</sub>. Short-term effects of SO<sub>2</sub> exposure can include adverse respiratory effects such as asthma symptoms. SO<sub>2</sub> and other SO<sub>x</sub> can react to form PM (U.S. EPA 2016d).
- **Sulfates (SO<sub>4</sub><sup>2-</sup>)** are the fully oxidized ionic form of sulfur. SO<sub>4</sub><sup>2-</sup> are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO<sub>2</sub> during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2009).

- **Lead** is a metal found naturally in the environment as well as in manufactured products. Mobile sources used to be the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline, and in 1996, lead was banned from gasoline. As a result of these efforts, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Lead can adversely affect multiple organ systems of the body and people of every age group. Lead poisoning in young children can cause brain damage, behavioral problems, and liver or kidney damage. Lead poisoning to adults can cause reproductive problems, muscle and joint pain, nerve disorders and kidney disease (CARB 2016a).

Common criteria air pollutants, such as ozone precursors, SO<sub>2</sub>, and PM, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Basin). Other pollutants, such as hazardous air pollutants (HAPs; described in more detail below under “Toxic Air Contaminants”), toxic air contaminants (TACs; described in more detail below), and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

### **Ambient Air Quality Standards and Basin Attainment Status**

In general, the NAAQS and CAAQS define “clean” air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter (µg/m<sup>3</sup>).

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories.

- **Attainment.** A region is “in attainment” if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a “maintenance area” for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and State laws require nonattainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.
- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Table 4.3-1 (Ambient Air Quality Standards and Basin Attainment Status) lists the NAAQS and CAAQS and summarizes the Basin's attainment status.

**Table 4.3-1  
Ambient Air Quality Standards and Basin Attainment Status**

Pollutant	Averaging Time <sup>(B)</sup>	California Standards <sup>(A)</sup>		National Standards <sup>(A)</sup>	
		Standard <sup>(C)</sup>	Attainment Status <sup>(D)</sup>	Standard <sup>(C)</sup>	Attainment Status <sup>(D)</sup>
Ozone	1-Hour (1979)	--	--	240 µg/m <sup>3</sup>	Nonattainment
	1-Hour (Current)	180 µg/m <sup>3</sup>	Nonattainment	--	--
	8-Hour (1997)	--	--	160 µg/m <sup>3</sup>	Nonattainment
	8-Hour (2008)	--	--	147 µg/m <sup>3</sup>	Nonattainment
	8-Hour (Current)	137 µg/m <sup>3</sup>	Nonattainment	137 µg/m <sup>3</sup>	Pending
PM <sub>10</sub>	24-Hour	50 µg/m <sup>3</sup>	Nonattainment	150 µg/m <sup>3</sup>	Attainment
	Annual Average	20 µg/m <sup>3</sup>	Nonattainment	--	--
PM <sub>2.5</sub>	24-Hour	--	--	35 µg/m <sup>3</sup>	Nonattainment
	Annual Average (1997)	--	--	15 µg/m <sup>3</sup>	Nonattainment
	Annual Average (Current)	12 µg/m <sup>3</sup>	Nonattainment	12 µg/m <sup>3</sup>	Nonattainment
Carbon Monoxide	1-Hour	23,000 µg/m <sup>3</sup>	Attainment	40,000 µg/m <sup>3</sup>	Attainment
	8-Hour	10,000 µg/m <sup>3</sup>	Attainment	10,000 µg/m <sup>3</sup>	Attainment
Nitrogen Dioxide	1-Hour	339 µg/m <sup>3</sup>	Attainment	188 µg/m <sup>3</sup>	Unclassifiable/Attainment
	Annual Average	57 µg/m <sup>3</sup>	Attainment	100 µg/m <sup>3</sup>	Attainment
Sulfur Dioxide	1-Hour	655 µg/m <sup>3</sup>	Attainment	196 µg/m <sup>3</sup>	Attainment
	24-Hour	105 µg/m <sup>3</sup>	Attainment	367 µg/m <sup>3</sup>	Unclassifiable/Attainment
	Annual Average	--	--	79 µg/m <sup>3</sup>	Unclassifiable/Attainment
Lead	3-Months Rolling	--	--	0.15 µg/m <sup>3</sup>	Nonattainment (Partial)
Hydrogen Sulfide	1-Hour	42 µg/m <sup>3</sup>	Attainment	--	
Sulfates	24-Hour	25 µg/m <sup>3</sup>	Attainment	--	
Vinyl Chloride	24-Hour	26 µg/m <sup>3</sup>	Attainment	--	

Source: CARB 2016b, SCAQMD 2016a, modified by MIG.

(A) This table summarizes the CAAQS and NAAQS and the Basin's attainments status. This table does not prevent comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Standards are not presented for visibility reducing particles, which are not concentration-based. The Basin is unclassified for visibility reducing particles.

(B) Ambient air standards have changed over time. This table presents information on the standards previously used by the U.S. EPA for which the Basin does not meet attainment.

(C) All standards are shown in terms of micrograms per cubic meter (µg/m<sup>3</sup>) rounded to the nearest whole number for comparison purposes (with the exception of lead, which has a standard less than 1 µg/m<sup>3</sup>). The actual CAAQS and NAAQS standards specify units for each pollutant measurement.

A= Attainment, N= Nonattainment, U=Unclassifiable.

## Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs), respectively. The U.S. EPA has identified 187 HAPs, including such substances as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs. Since CARB's list of TACs references and includes the U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs.

TACs can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer) (U.S. EPA 2019a, CARB 2019b). People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects such as (but not limited to) reduce immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems (U.S. EPA 2020a, CARB 2020b).

A description of the TACs associated with the proposed GPTZCU and its vicinity is provided below.

- **Gasoline-Powered Mobile Sources.** According to the SCAQMD's *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (SCAQMD, 2021), or MATES V, gasoline-powered vehicles emit TACs, such as benzene, which can have adverse health risks. Gasoline-powered sources emit TACs in much smaller amounts than diesel-powered vehicles. The MATES V study identifies that diesel emissions account for approximately 50% of the total air toxics and cancer risk in the Basin, while Benzene, 1,3-Butadiene, and Carbonyls make up approximately 25% of the cancer risk. Within the Planning Area, diesel emissions comprise a greater percent of the total air toxic and cancer risk than the entire Basin. Sixty-seven percent or more of the cancer risks for the zip codes east of Interstate 605 (within the City) are driven by diesel emissions and receptor exposure to those emissions.
- **Diesel Particulate Matter (DPM).** Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than 1  $\mu\text{m}$  in diameter, and thus is a subset of  $\text{PM}_{2.5}$ . DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants including VOCs and  $\text{NO}_x$ . The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surfaces and in the deepest regions of the lungs where they are most susceptible to injury. In 1998, CARB identified DPM as a toxic air contaminant based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as  $\text{PM}_{2.5}$  exposure (CARB 2016c).
- **PM from Wheel-Rail Interactions:** PM may also be generated from friction between rail and locomotive wheels (wheel-rail interaction). This abrasion process can suspend metals such as iron, chromium, manganese, and copper in the form of PM (CARB 2019b, Loxham et al. 2013); however, the potential for PM to be generated is dependent on the weight of the train and the conditions of the wheels and track on which the train

rides. The Metrolink is a commuter rail that consists of a traditional diesel locomotive commuter rail system; the rail line is also shared by freight trains. Thus, while the Metrolink may generate PM from wheel-rail interaction, this contribution is anticipated to be minimal (i.e., would not have an appreciable effect on mass emission or health risk estimates) and this issue is not discussed further in this EIR.

- **Oil production** also generates TACs in the form of VOCs (e.g., acetaldehyde, acrolein, benzene, 1,3-butadiene, and propylene), polycyclic aromatic hydrocarbons (e.g., naphthalene and benzo(a)pyrene), metals (e.g., arsenic, cadmium, copper, lead, manganese, mercury, nickel, and zinc), halides (e.g., chlorine), sulfur-containing compounds (e.g., hydrogen sulfide), and DPM.
- **Toxic elements and pollutants** such as butadiene, benzene, perchloroethylene, formaldehyde, acetaldehyde, arsenic, cadmium, and lead are found in the basin (SCAQMD, 2015). Many toxins such as benzene, butadiene, and lead, are associated with refinery operations such as those that exist in the basin.

#### Local Air Quality Conditions

The SCAQMD monitors air quality within the Basin. Existing levels of ambient air quality and historical trends within the Planning Area are best documented by measurements taken by the SCAQMD. The Planning Area is located in SCAQMD Source Receptor Area (SRA) 5 (Southeast Los Angeles County). Air quality monitoring stations usually measure pollutant concentrations at varying heights above ground level depending on the monitoring site and the pollutants being monitored. Therefore, air quality is often referred to in terms of ground-level concentrations. The closest air quality monitoring station is the Pico Rivera Monitoring Station, located at 4144 San Gabriel River Parkway, Pico Rivera, California (approximately 5.4 miles north of the center of the Planning Area and approximately 2.5 miles to the northernmost edge of the Planning Area). Air quality data for O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from the Pico Rivera monitoring station for SRA 5 are provided in Table 4.3-2 (Local Air Quality Conditions (2017-2019)).

**Table 4.3-2**  
**Local Air Quality Conditions 2017-2019**

Pollutant	Ambient Air Standard	Year <sup>(A)</sup>		
		2017	2018	2019
Ozone (O <sub>3</sub> )				
Maximum 1-hour Concentration (ppm)		0.118	0.115	0.108
Maximum 8-hr Concentration (ppm)		0.086	0.082	0.091
Number of Days Exceeding State 1-hr Standard	>180 µg/m3	7	3	5
Number of Days Exceeding State 8-hr Standard	>137 µg/m3	9	5	7
Days Exceeding Federal 1-hr Standard	>0.124 ppm	0	0	0
Days Exceeding Federal 8-hr Standard	>0.070 ppm	9	5	7
Carbon Monoxide (CO)				
Maximum 1-hr Concentration (ppm)		2.5	2.0	1.9
Maximum 8-hr Concentration (ppm)		2.2	1.8	1.5
Days Exceeding State 1-hr Standard	>23,000 µg/m <sup>3</sup>	--	--	--
Days Exceeding Federal/State 8-hr Standard	>10,000 µg/m <sup>3</sup>	--	--	--
Days Exceeding Federal 1-hr Standard	>40,000 µg/m <sup>3</sup>	--	--	--
Nitrogen Dioxide (NO <sub>2</sub> )				
Maximum 1-hr Concentration (ppb)		75.0	76.8	61.8
Annual Arithmetic Mean Concentration (ppb)		19.6	18.3	17.6
Days Exceeding State 1-hr Standard	>180 µg/m <sup>3</sup>	--	--	--
Coarse Particulate Matter (PM <sub>10</sub> ) *				
Maximum 24-hr Concentration (µg/m <sup>3</sup> )		--	--	--
Annual Arithmetic Mean (µg/m <sup>3</sup> )		--	--	--
Samples Exceeding State 24-hr Standard	>50 µg/m <sup>3</sup>	--	--	--
Samples Exceeding Federal 24-hr Standard	>150 µg/m <sup>3</sup>	--	--	--
Fine Particulate Matter (PM <sub>2.5</sub> )				
Maximum 24-hr Concentration (µg/m <sup>3</sup> )		49.50	35.40	29.60
Annual Arithmetic Mean (µg/m <sup>3</sup> )		12.23	12.31	10.34
Samples Exceeding Federal 24-hr Standard	>35 µg/m <sup>3</sup>	4	0	0
Source: SCAQMD 2020a, 2020b, 2020c				
(A) "--" indicates data are not available.				
* There is no PM <sub>10</sub> data in SRA 5 nor any other SRA in the vicinity of the Planning Area.				

### Existing Emissions Levels in the Planning Area

The Planning Area is bisected by the BNSF railroad and has Interstate 605 (I-605) and Interstate 5 (I-5) running near the edge of the Planning Area's western and southern borders, respectively. Trains and vehicles traveling along these transportation corridors contribute to pollutant concentrations in the City. Truck trips from industrial land uses within the City also contribute to pollutant concentrations within and in proximity of the City. In addition, emissions from stationary sources (e.g., those found at industrial facilities) and area sources (e.g., painting activities, gas stations, construction sites, etc.) contribute to pollutant concentrations throughout the City.

The existing residential and non-residential land uses in the Planning Area generate emissions from the following sources:

- **Small "area" sources.** Existing land uses generate emissions from small area sources including landscaping equipment and the use of consumer products such as paints,

cleaners, and fertilizers that result in the evaporation of chemicals to the atmosphere during product use.

- **Energy use and consumption.** Existing land uses generate emissions from the combustion of natural gas in building water and space heating equipment, as well as industrial processes.
- **Mobile sources.** Existing land uses generate emissions from vehicles travelling to and from the Planning Area.

Existing land uses in the Planning Area are summarized in Table 3-1 (Existing Land Use) of the Project Description (see Chapter 3). Existing emissions were estimated using the California Emissions Estimator Model, or CalEEMod, Version 2020.4.0. The existing emissions were estimated using default data assumptions contained within CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for each of the existing land uses within the Planning Area were adjusted to reflect existing development conditions.
- **Energy Use and Consumption:** The residential and non-residential default energy intensity factors contained in CalEEMod, Version 2020.4.0, are based on the 2019 energy code. The Title 24 energy intensity factors were adjusted as follows to reflect lower energy efficiency requirements of the 2013 energy code, which are representative of the older building stock within the Planning Area (CAPCOA 2021a):
  - **Single-family Residential:** The single-family residential electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 5.39 and a factor of 1.38, respectively.
  - **Multi-family Residential:** The multi-family residential electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 5.54 and a factor of 1.51, respectively.
  - **Non-residential:** The non-residential electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 1.17 and a factor of 1.02, respectively.
- **Mobile Sources.**
  - **Trip Generation and Distance:** A default CalEEMod run was conducted based on the existing land use types within the City. The weekday and weekend trip generation rates accounted for in the default CalEEMod run were used to develop the percentage of trips that occur on weekdays, Saturdays, and Sundays. The daily VMT estimates provided by Fehr and Peers for the existing land uses (approximately 3,408,947 miles per day) in the Planning Area, as presented in the June 25, 2021 Transportation Report prepared for the proposed GPTZCU, was then annualized using a multiplication factor of 347 days per year, the same factor used in CARB's 2000-2012 Greenhouse Gas Emissions Inventory, and divided through by the average trip distance (11.6 miles per trip) provided by Fehr and Peers to derive the daily trip rates, using the percentiles

calculated in the default CalEEMod run. (CARB, 2014; Fehr and Peers, 2021).<sup>1</sup> In total, based on the daily VMT estimate and CARB multiplication factor, land uses in the Planning Area are estimated to generate approximately 1,179,620,586 annual VMT.

- **Emission Factors:** Vehicle emission factors were updated based on derived EMFAC2021 (Version 1.0.1) emission rates for Los Angeles County (South Coast Air Basin), consistent with the methodology described in the CalEEMod User's Guide Appendix A (CAPCOA, 2021b).

The emissions generated by current land uses in the Planning Area are shown in Table 4.3-3 (Santa Fe Springs GPTZCU: Existing Land Use Emissions Estimates). The emissions are shown for two scenarios:

- **Year 2020 (current conditions)**, which are based on Year 2020 vehicle fleet characteristics (e.g., vehicle type, age, emission rates).
- **Year 2040 (future conditions)**, which are based on Year 2040 vehicle fleet characteristics and represent the projected emissions that existing land uses would generate in the future (assuming no increase in population or change in land uses). This scenario provides an estimate of how emissions would change in the Planning Area as a result of regulations that would reduce motor vehicle emissions in the future, and allows for distinguishing the potential change in emissions that would occur from the proposed change in land uses that would occur with implementation and buildout of the GPTZCU in Year 2040, as opposed to a change in emissions that would occur from regulatory requirements that would be in place whether or not the GPTZCU is adopted.

**Table 4.3-3**  
**Santa Fe Springs GPTZCU: Existing Land Use Emissions Estimates**

Emissions Source	Maximum Daily Pollutant Emissions (Pounds per Day) <sup>(A)</sup>							
	ROG	NOx	CO	SO <sub>2</sub>	PM <sub>10</sub>		PM <sub>2.5</sub>	
					Dust	Exhaust	Dust	Exhaust
Year 2020 (Existing Conditions)								
Area Sources	5,390	264	7,194	16	0	934	0	934
Energy	34	303	216	2	0	24	0	24
Mobile Sources	1,649	1,928	17,259	31	2,547	28	636	26
Year 2018 Total <sup>(B)</sup>	7,074	2,496	24,669	49	2,547	985	636	983
Year 2040 (Future Conditions)								
Area Sources	5,389	264	7,186	16	0	934	0	934
Energy	34	303	216	2	0	24	0	24
Mobile Sources	841	545	8,125	22	2,542	9	634	8
Year 2040 Total <sup>(B)</sup>	6,265	1,112	15,527	40	2,542	966	634	965
Source: MIG 2021, see Appendix D.								
(A) Emissions estimated using CalEEMod, V 2020.4.0. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, CO, SO <sub>x</sub> emissions occur during the summer. Maximum daily NO <sub>x</sub> , PM <sub>10</sub> , and PM <sub>2.5</sub> emissions occur during the winter.								
(B) Totals may not equal due to rounding.								

<sup>1</sup> The multiplication factor of 347 days accounts for differences in mobile source activity on weekdays and weekends (CARB, 2014). Subsequent Greenhouse Gas Emissions Inventories prepared by CARB have used the same methodology as described in the 2000-2012 inventory.



As shown in Table 4.3-3, there is a decrease in mobile source emissions between Year 2020 and Year 2040 conditions. This decrease in emissions is due to improvements in exhaust emission control systems in newer vehicles, along with fewer older vehicles in use<sup>2</sup>. In contrast, PM<sub>10</sub> and PM<sub>2.5</sub> dust emissions remain approximately the same because these emissions are associated with paved road dust, tire and brake wear, etc. and the amount of VMT does not change between the 2020 and 2040 conditions.<sup>3</sup>

### **Sensitive Receptors**

Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the SCAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (SCAQMD, 2019a; CARB, 2005).

The potentially serious detrimental effects caused by even the most common pollutants are of widespread concern. O<sub>3</sub>, PM, CO and other pollutants pose a very real threat to health and property in the Basin. The region has a high median age, which implies that major portions of residents are particularly susceptible to respiratory distress from O<sub>3</sub> and PM<sub>10</sub>. In general, the sensitive air quality receptors within the City of Santa Fe Springs include, but are not limited to:

- Existing low- and medium-density residential receptors within the City;
- Existing elementary and intermediate schools, and education or institutional facilities; and
- Existing parks and recreational facilities, including, but not limited to, Santa Fe Springs Park, Los Nietos Park, and Little Lake Park.

In addition to existing sensitive receptors in and near the Planning Area, the implementation of the General Plan would result in new, sensitive residential receptors within the Planning Area.

### **Existing Air Pollution-Related Health Risks**

Sensitive air quality receptors are usually most affected by local sources of air pollution. The I-5 freeway passes through the southern and western portions of the Planning Area, and the I-605 bounds the northwestern portion of the Planning Area. In addition, as discussed previously, the Planning Area is bisected by the BNSF railroad. These transportation corridors carry trucks and trains that emit DPM as they operate, and cause localized areas of DPM concentrations. As noted under “Existing Emissions in the Planning Area”, there are also several stationary sources located throughout the City. These sources are described below.

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<sup>2</sup> For example, the U.S. EPA’s Emission Standards Reference Guides indicates light duty vehicles and light duty trucks have the following NO<sub>x</sub> exhaust emissions at approximately 50,000 miles of use: 1 gram/mile for 1981 to 1993 model year vehicles, 0.4 grams/mile for 1994 to 1999 model year vehicles, and will drop to 0.05 grams/mile by 2025 (U.S. EPA 2016e and 2016f).

<sup>3</sup> Minor differences exist because of a different fleet mix assumed by CalEEMod in 2020 than in 2040.

Under the State's Air Toxics Hot Spots Information and Assessment Act (AB 2588; see Section 4.3.2) the SCAQMD is required to prepare an annual report of activities related to facilities that emit TACs. According to the SCAQMD's October 2020 Annual Report on AB 2588 Air Toxics Hot Spots Program, there were nine facilities within the Planning Area that were required to report their emissions to the SCAQMD under AB 2588 (SCAQMD, 2020d). These facilities include:

- Lakeland Development Company (SCAQMD ID 800373) with a cancer risk value of 9.7 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.30 and 0.10, respectively;<sup>4</sup>
- Golden West Ref Company (SCAQMD ID 800184) with a cancer risk value of 8.8 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.20 and 0.10, respectively;<sup>5</sup>
- Electronic Chrome Grinding Company, Inc. (SCAQMD ID 10005) with a cancer risk value of 3.0 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.20 and 0.10, respectively;
- Trojan Battery Company, LLC (SCAQMD ID 37507) with a cancer risk value of 2.6 excess cancer chances per million and non-cancer acute and chronic hazard indices of 1.10 and 1.30, respectively;
- Lefiell Manufacturing Company (SCAQMD ID 22467) with a cancer risk value of 1.7 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.70 and 0.20, respectively;
- Santa Fe Enameling & Metal Finishing Company (SCAQMD ID 14544) with a cancer risk value of 0.8 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.00 and 0.40, respectively;
- Breitburn Operating LP (SCAQMD ID 150201) with a cancer risk value of 0.8 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.00;<sup>6</sup>
- Life Paint Company (SCAQMD ID 18990) with a cancer risk value of 0.4 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.00; and
- Precision Tube Bending (SCAQMD ID 48300) with a cancer risk value of 0.2 excess cancer chances per million and non-cancer acute and chronic hazard indices of 0.00.

Including the facilities identified above, CARB indicates there are 56 facilities within the Planning Area that report emissions pursuant to AB 2588 (CARB, 2021). Please see Appendix D for a full list of emissions and risks from the facilities, as provided by the CARB database.

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<sup>4</sup> Although this site is identified as "Active" in the SCAQMD October 2020 Annual Report on AB 2588 Air Toxic Hot Spots Program, this site may have been redeveloped a few years ago and is referred to as the Goodman Logistics Center. In actuality, the site may be inactive from an AB 2588 standpoint based on the change in land use.

<sup>5</sup> Although this site is identified as "Active" in the SCAQMD October 2020 Annual Report on AB 2588 Air Toxic Hot Spots Program, this site may have been redeveloped a few decades ago and is referred to as the Golden Springs. In actuality, the site may be inactive from an AB 2588 standpoint based on the change in land use.

<sup>6</sup> Although this site is identified as "Active" in the SCAQMD October 2020 Annual Report on AB 2588 Air Toxic Hot Spots Program, this site may no longer be in existence.

According to the SCAQMD's MATES V Carcinogenic Risk Map, the Planning Area has an estimated cancer risk ranging between 401 and 550 (SCAQMD, 2021).<sup>7</sup> These cancer risk estimates are orders of magnitude higher than the SCAQMD's significance threshold of 10 cases in one million for cancer risk. These estimates, however, are based upon regional modeling efforts that largely do not account for site specific emission rates and dispersion characteristics that typically result in refined and substantially lower health risk estimates.

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. While CalEnviroScreen was originally developed as part of Senate Bill (SB) 535 and used to identify disadvantaged communities for the purposes of allocating funding from the State's Cap-and-Trade regulation, its application and scope have expanded over the years. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The CalEnviroScreen model is made up of four components – two pollution burden components (exposures and environmental effects) and two population characteristics components (sensitive populations and socioeconomic factors). The four components are further divided into 21 indicators. An indicator is a measure of either environmental conditions, in the case of pollution burden indicators, or health and vulnerability factors, in the case of population characteristic indicators.

- **Exposure** indicators are based on the measurements of different types of pollution that people may come into contact with. Exposure indicators include:
  - Air Quality: Ozone
  - Air Quality: PM<sub>2.5</sub>
  - Children's Lead Risk from Housing
  - Diesel Particulate Matter
  - Drinking Water Contaminants
  - Pesticide Use
  - Toxic Releases from Facilities
  - Traffic Density
- **Environmental effects** indicators are based on the locations of toxic chemicals in or near communities. Environmental effects indicators include:
  - Cleanup Sites
  - Groundwater Threats
  - Hazardous Waste
  - Impaired Water Bodies
  - Solid Waste Sites and Facilities

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<sup>7</sup> According to the SCAQMD (2021), cancer risk refers to the probability of contracting cancer associated with exposure to a substance. It is expressed as the chance per million population of a cancer case occurring. A risk ranging from 401 to 550 per million means that in a population of one million individuals (exposed over a 70 year lifetime), 401 to 550 additional cancer cases would be expected. For reference, a cancer risk of 522 per million in zip code 90680 (i.e., a zip code within the City) is approximately 71.0% higher than other receptors within the SCAQMD's jurisdiction.

- **Sensitive population** indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health. Sensitive population indicators include:
  - Asthma
  - Cardiovascular Disease
  - Low Birth Weight Infants
- **Socioeconomic factors** indicators are based on community characteristics that result in increased vulnerability to pollutants. Environmental effects indicators include:
  - Educational Attainment
  - Housing Burden
  - Linguistic Isolation
  - Poverty
  - Unemployment

Each census tract receives scores for as many of the 21 indicators as possible, and the scores are then mapped so that different communities can be compared. Percentiles are assigned to each census tract based on the census tract's score in relation to the rest of the state. An area with a high percentile is one that experiences a much higher pollution burden than areas with low scores. For example, if a census tract has an indicator in the 40<sup>th</sup> percentile, it means that indicator's percentile is higher than 40 percent of the census tracts in the state. CalEnviroScreen also provides a total (or cumulative) score, which is the product of multiplying the 13

pollution burden components by the 8 population characteristics. This total / cumulative score helps contextualize how multiple contaminants from multiple sources affect people, while taking into account their living conditions (e.g., nonchemical factors such as socioeconomic and health status). Communities that are within the top 25<sup>th</sup> percentile for total CalEnviroScreen scores (i.e., scoring in the 75<sup>th</sup> percentile or higher for the cumulative score) are considered disadvantaged communities pursuant to SB 535 (OEHHA, 2017).

According to the OEHHA CalEnviroScreen 4.0 Map, the Planning Area generally has CalEnviroScreen scores that are above 70. The census tracts in the southern portion of the Planning Area have lower CalEnviroScreen scores, while the census tracts in the middle and northern portions of the Planning Area tend to have some of the highest scores. Many of the census tracts within the Planning Area have CalEnviroScreen 4.0 percentiles that are above 75, qualifying them as disadvantaged communities based on the SB 535 definition. These census tracts include:

- Census Tract 6037502301 in the northwestern portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 94;
- Census Tract 6037502302 in the northern portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 89;
- Census Tract 6037502700 in the northern-middle portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 92;
- Census Tract 6037502902 in the northeastern portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 95;

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- Census Tract 6037502801 in the western portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 79;
- Census Tract 6037502802 in the middle of the Planning Area has a CalEnviroScreen 4.0 percentile of 76;
- Census Tract 6037503000 in the middle portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 95;
- Census Tract 6037503104 in the eastern-middle portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 85; and
- Census Tract 6037503105 in the eastern portion of the Planning Area has a CalEnviroScreen 4.0 percentile of 95.

According to CalEnviroScreen, the following indicators for these communities generally contribute the most to their high percentile scoring:

- Particulate Matter 2.5
- Diesel Particulate Matter
- Toxic Releases
- Traffic
- Drinking Water
- Lead from Housing
- Cleanup Sites
- Groundwater Threats
- Hazard Waste
- Solid Waste
- Education
- Linguistic Isolation
- Poverty
- Housing Burden

#### 4.3.2 – REGULATORY FRAMEWORK

##### **Federal**

**Federal Clean Air Act.** The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The Act establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, to achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect

human health with an adequate margin of safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

## State

**California Clean Air Act.** In addition to being subject to Federal requirements, air quality in the state is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS. As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

**In-Use Off-Road Diesel Equipment Program.** CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of NO<sub>x</sub> and PM from off-road diesel vehicles, including construction equipment, operating within California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology (BACT) requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles of 25 horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

**On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation.** CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce the emission of NO<sub>x</sub>, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

**CARB Stationary Diesel Engines – Emission Regulations.** In 1998, CARB identified DPM as a TAC. To reduce public exposure to DPM, in 2000, the Board approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments to *Airborne Toxic Control Measure for Stationary Compression Ignition Engines* and be permitted by SCAQMD.

**CARB Air Quality and Land Use Handbook.** In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated

with new projects that go through the land use decision-making process (CARB 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for “sensitive” land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Planning Area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry cleaning operations (dry cleaning with TACs is being phased out and will be prohibited in 2023). The SCAQMD (Regulation 14, Rule 21) has established emission controls for the use of perchloroethylene, the most common dry-cleaning solvent.

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB 2017), that provides recommendations for strategies to minimize exposure of the public to air pollutants due to proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

**Air Toxics “Hot Spots” Program.** State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics “Hot Spots” Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics “Hot Spots” Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California’s Children’s Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California’s Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. EPA;
- U.S. National Toxicology Program (NTP);
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

On May 6, 2005, the SCAQMD adopted a *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* containing numerous recommendations focused on land use planning, such as locating sensitive receptors away from substantial sources of TACs and CO hot spots (e.g., high-traffic freeways and roads, distribution centers, refineries, etc.). When locating receptors near large generators of TAC emissions, the SCAQMD recommends conducting CO hot spot analyses and analyzing health risks for these new developments.

**California Building Industry Association v. Bay Area Air Quality Management District (2015).**

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

**Regional**

**Southern California Association of Governments.** The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. SCAG encompasses the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial.

SCAG is designated as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency. Under SB 375, SCAG, as a designated MPO, is required to prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Information contained in Chapter 5: The Road to Greater Mobility and Sustainable Growth of the 2016 RTP/SCS forms the basis for the land use and transportation components of the Air Quality Management Plan (AQMP), and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP (SCAG, 2016). Recently SCAG adopted an update to the 2016 RTP/SCS: the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) known as Connect SoCal. However, the current Air Quality Management Plan for the Basin is based on the growth assumptions contained in the 2016 RTP/SCS.



**SCAQMD Air Quality Management Plan (AQMP).** Under State law, the SCAQMD is required to prepare an overall plan for air quality improvement, known as an AQMP. The purpose of an AQMP is to bring an air basin into compliance with federal and State air quality standards. The SCAQMD 2016 AQMP was adopted on March 3, 2017. The 2016 AQMP provides new and revised demonstrations for how the SCAQMD, in coordination with federal, State, regional and local governments will bring the Basin back into attainment for the following NAAQS: 2008 8-hour ozone; 2012 annual PM<sub>2.5</sub>; 2006 24-hour PM<sub>2.5</sub>; 1997 8-hour ozone; and 1997 1-hour ozone.

To achieve the reductions necessary to bring ambient air quality back into attainment the SCAQMD has identified seven primary objectives for the AQMP, which include:

1. Eliminating reliance on unknown future technology measures to demonstrate future attainment of air quality standards;
2. Calculating and accounting for co-benefits associated with measures identified in other, approved planning efforts (e.g., SCAG RTP/SCS);
3. Developing a strategy with fair-share emission reductions at the federal, State, and local levels;
4. Investing in strategies and technologies that meet multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation—especially in disadvantaged communities;
5. Seeking, identifying, and securing significant sources of funding for incentives to implement early deployment and commercialization of zero and near-zero technologies, particularly in the mobile source sector;
6. Enhancing the socio-economic analysis and selecting the most efficient and cost-effective path to achieve multi-pollutant and -deadline targets; and
7. Prioritize non-regulatory, innovative approaches that can contribute to the economic vitality of the region while maximizing emission reductions.

The emission forecasts and demonstrations presented in the 2016 AMQP rely heavily on information contained in other planning and strategy documents. For example, the 2016 AQMP's long-term emissions inventory is based on the growth and land use projections contained in the SCAG's 2016 RTP/SCS. Additionally, the conclusions relating to ozone compliance are based on implementation of measures presented in CARB's Mobile Source Strategy and State Implementation Plan (SIP) strategy. The Mobile Source Strategy outlines a suite of measures targeted at on-road light- and heavy-duty vehicles, off-road equipment, and federal and international sources. A subset of the statewide strategy is a mobile source strategy for the South Coast SIP. Because the SCAQMD has limited authority in regulating mobile source emissions, coordination and cooperation between SCAQMD, CARB, and the U.S. EPA is imperative to meeting the NO<sub>x</sub> reductions required to meet ozone standards. Although not incorporated specifically from another planning document strategy, the 2016 AQMP also provides numerous control measures for stationary sources (SCAQMD, 2017).

**SCAQMD Rules and Regulations.** The SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of business, processes, operations, and products to implement the AQMP and the various federal and State air quality requirements. In general, rules that would be applicable to the GPTZCU could include:

- **Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.
- **Rule 445 (Wood Burning Devices)** prohibits installation of woodburning devices such as fireplaces and wood-burning stoves in new development unless the development is located at an elevation above 3,000 feet or if existing infrastructure for natural gas service is not available within 150-feet of the development.
- **Rule 481 (Spray Coating Operations)** imposes equipment and operational restrictions during construction for all spray painting and spray coating operations.
- **Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or lower.
- **Rule 1113 (Architectural Coatings)** establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.
- **Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package or repackage of any consumer paint thinner or multi-purpose solvent for use in the District unless consumer paint thinners or other multi-purpose solvents comply with applicable VOC content limits.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** specifies work practice requirements to limit asbestos emissions from building demolitions and renovation activities, including the removal and associated disturbance of asbestos-containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, asbestos containing materials handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos containing waste materials.
- **Rule 2202 (On-Road Motor Vehicle Mitigation Options)** provides employers with options to reduce mobile source emissions generated from employee commutes. The rule applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period.

## Local

**City General Plan.** The proposed Santa Fe Springs General Plan contains the following goals and policies related to air quality:

- **Goal EJ-1: Reduced Exposure to Air Pollution and Hazardous Materials**
  - **Policy EJ-1.1: Roadway Pollution Burdens.** Mitigate impacts on residential neighborhoods immediately adjacent to I-605 from noise and air pollutant emissions.
  - **Policy EJ-1.2: Truck Idling Restrictions.** Designate acceptable and unacceptable areas for freight trucking and diesel truck idling to limit impacts on disadvantaged communities already overburdened by air pollution.
  - **Policy EJ-1.4: Industrial Pollution.** Reduce pollution exposure in residential neighborhoods by limiting industrial operations that generate potentially hazardous air pollutants.
  - **Policy EJ-1.5: Stationary Source Emissions.** Consult with California Air Resources Board and the South Coast Air Quality Management District to ensure the appropriate monitoring of stationary source emissions and to receive aid and assistance to reduce exposures to harmful air pollutants in disadvantaged communities.
  - **Policy EJ-1.6: Public Education.** Develop community programs to improve public awareness of State, County, regional, and local agencies and resources to assist with air quality and other environmental quality concerns.
  - **Policy EJ-1.7: Emission Data Collection.** Coordinate with the South Coast Air Quality Management District to explore ways to initiate data collection efforts for a community emissions reduction and/or community air monitoring plan, including the identification of: information needed (new or updated), potential data sources and the resources needed, and strategies to engage residents and collect information.
- **Goal EJ-3: Meeting Disadvantaged Communities' Needs**
  - **Policy EJ-3.5: Weatherization Programs.** Assist residents in disadvantaged communities to retrofit their homes to be more energy-efficient, weatherproof, and better protected from air and noise pollution.
- **Goal EJ-4: Increased Civic Engagement From Disadvantaged Communities**
  - **Policy EJ-4.4: Special Meetings.** Conduct special informational meetings for projects that could impact disadvantaged communities, including projects that may handle hazardous materials, emit air pollution, and/or create truck or rail traffic.
- **Goal C-1: A Multi-Modal Mobility Network that Efficiently Moves and Connects People, Destinations, Vehicles, and Goods**
  - **Policy C-1.1: Multi-Modal.** Use a multimodal approach when pursuing street and other transportation network improvements, including accommodating pedestrians, cyclists, transit riders, and motor vehicles, and that accounts for land use and urban form factors that affect accessibility.
  - **Policy C-1.2: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.
  - **Policy C-1.5: Transportation Priority.** Prioritize transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities.

- **Goal C-2: Streets Designed and Managed to Ease Access for All Users**
    - **Policy C-2.8: Sidewalk Maintenance and Upkeep.** Ensure established sidewalks and related physical improvements are maintained to provide a comfortable, safe, and desirable experience.
  - **Goal C-3: Active Transportation Network: Connected Street Network for Pedestrians and Cyclists**
    - **Policy C-3.1: Promote Walking.** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.
    - **Policy C-3.2: Pedestrian Design.** Design and operate sidewalks, streets and intersections to maximize pedestrian safety and comfort through a variety of street design and traffic management solutions.
    - **Policy C-3.4: Connectivity.** Require that new developments increase connectivity through convenient pedestrian and bicycling connections to the established and planned street network.
    - **Policy C-3.5: Innovative Bicycle and Pedestrian Connections.** Investigate the use of easements and/or rights-of-way along flood control channels, public utilities, railroads, and streets by cyclists and pedestrians.
    - **Policy C-3.6: Active Transportation Facilities.** Promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles.
    - **Policy C-3.7 Bicycle Facilities.** Plan for new shared-use paths, bicycle lanes, buffered bicycle lanes, bicycle routes, and bicycle boulevards that establish a comprehensive bicycle network citywide.
    - **Policy C-3.8: Bicycle Parking.** Establish standards for bicycle parking that include racks and locks and integrate bike parking facilities within all community facilities and activity areas, and consider parking reductions for commercial developments that provide bicycling parking.
    - **Policy C-3.11: Sidewalks Gaps.** Prioritize adding new sidewalks to streets either lacking sidewalks on both sides of the street or on one side of the street, with added priority in disadvantaged communities.
    - **Policy C-3.12: Sidewalks Widening.** Evaluate widening sidewalks away from the curb to accommodate pedestrians along major transit routes and around planned and established transit stations.
  - **Policy C-3.14: Neighborhood Streets.** Design or retrofit streets to improve walkability, strengthen connectivity, and enhance community identity; emphasize the provision of high-quality pedestrian and bikeway connections to transit stops/stations, commercial centers, and local schools; and design new streets and consider traffic calming where necessary, to reduce neighborhood speeding.
- Goal C-4: A Comprehensive Transit System that Provides Convenient and Reliable Transit Access to Residential Neighborhoods and Activity Destinations**

- **Policy C-4.1: Transit Stops and Stations.** Develop approaches and coordinate with other agencies to create comfortable, functional, informational, and safe transit shelters for bus stops and rail stations.
- **Policy C-4.2: Transit Rider Needs.** Consult with all transit agencies operating in the City to ensure bus services and facilities meet the needs of residents and the business community, specifically targeting specific populations such as residents in high transit ridership areas, senior populations, school-age children, and residents living in disadvantaged communities.
- **Policy C-4.3: First/Last Mile.** Encourage first/last mile infrastructure improvements, mobility services, transit facilities and amenities, and signage/wayfinding solutions to all bus stops and transit stations.
- **Policy C-4.4: Transit Improvement Priority.** Prioritize transit and bus connectivity and access improvements within disadvantaged communities.
- **Policy C-4.5: Improve Transit Access.** Improve multi-modal access to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station, including bicycle, micromobility, and pedestrian connections and improvements.
- **Policy C-4.6: Metro L Line Expansion.** Consult with Metro during the planning and construction phases of Metro's L line and station along Washington Boulevard to ensure improvements achieve the City's connectivity and land use objectives.
- **Policy C-4.7: Metro C Line Expansion:** Consult with regional partners and Metro to encourage expansion of the Metro C Line from its terminus in Norwalk to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station.
- **Policy C-4.8: Light Rail Stations:** Consult with Metro to establish appropriate light rail stations that consider local context and provide opportunities for attractive design, placemaking, and integrating public art and amenities that reflect the City of Santa Fe Springs' community and culture.
- **Policy C-4.8: Transit:** Require new development to post current transit and bus schedules and operating system information within communal gathering areas to encourage greater participation in public transportation.
- **Goal C-6: Street Designs that Accommodate Transportation Modes and Users of All Abilities**
  - **Policy C-6.1: Pedestrian Projects.** Incorporate new crossing treatments, curb treatments, signals and beacons, traffic-calming measures, and transit stop amenities identified in the Active Transportation Plan.
  - **Policy C-6.7: Green Streets:** Integrate a green street approach into street improvements to address/include stormwater management, permeable surfaces, urban greenery, and sustainable landscaping improvements.
- **Goal C-8: A Transportation System Designed to Reduce Vehicle Miles Traveled**
  - **Policy C-8.1: Reducing Vehicle Miles Travel:** Integrate transportation and land use decisions to reduce vehicle miles traveled and greenhouse gas emissions.

- **Policy C-8.2: Transportation Management Strategies:** Evaluate the potential of transportation demand management strategies and intelligent transportation system applications to reduce vehicle miles traveled.
- **Policy C-8.3: Employee Incentives:** Encourage businesses to provide employee incentives to utilize alternatives to conventional automobile travel (i.e., carpools, vanpools, buses, cycling, and walking).
- **Policy C-8.4: Air Quality:** Encourage the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's regulations.
- **Policy C-8.5: Employee Work Hours Variability:** Encourage businesses to use flextime, staggered working hours, telecommuting, and other means to lessen peak commuter traffic.
- **Policy C-8.6: Ridesharing:** Promote ridesharing through publicity and provision of information to the public through web-based apps and other approaches through collaboration with other agencies and jurisdictions.
- **Policy C-8.7: Caltrans Consultation:** Consult with Caltrans regarding freeway improvements that can affect City roadways and businesses.
- **Goal S-3: Minimized Exposure of Residents, Businesses, and Habitats to Hazardous Materials and Their Deleterious Effects**
  - **Policy S-3.3: Hazardous Air Pollution.** Consult with the South Coast Air Quality Management District regarding the emissions monitoring of industrial operators that use or produce hazardous materials/toxic compounds.
- **Goal S-5: A Resilient Community Well Prepared to Respond and Adapt to Climate Change**
  - **Policy S-5.4: Resilient Building Approaches.** Support building and site improvements that reduce energy and water use and urban heat island effects.
  - **Policy S-5.7: Passive Solar Design.** Encourage passive solar design for new development and community facilities, including cool roofs, architectural features that cool interiors, shade shelter areas, shaded playgrounds, and bus shelter canopies.
  - **Policy S-5.8: Urban Heat Island Countermeasures.** Integrate solutions to address urban heat island effect, particularly in disadvantaged communities, by utilizing green infrastructure, shading building surfaces, expanding tree canopies over parking lots and expansive pavements, and expanding the urban forest.
- **Goal COS-5: An Expansive Urban Forest and Related Benefits**
  - **Policy COS-5.4: Green Buffers.** Expand trees and landscaping to build an extensive green buffer between residential neighborhoods and freeways, rail corridors, and industrial districts to help reduce air pollution impacts. Prioritize residential neighborhoods that are designated as disadvantaged communities.
  - **Policy COS-5.5: Environmental Benefits.** Expand urban greening to reduce air and noise pollution, reduce and clean urban runoff, increase groundwater recharge, improve ecological diversity, and help cool neighborhoods by minimizing heat island effects.
- **Goal COS-9: Air Quality Conditions that Improve Over Time**

- **Policy COS-9.1: Land Use and Transportation.** Allow urban and transit-oriented communities within walking distance of transit stops and stations to reduce vehicle trips and trip lengths.
- **Policy COS-9.2: Evaluate Trucking Emissions.** Support low emission solutions and use of alternative fuels to improve trucking fleet fuel efficiency.
- **Policy COS-9.4: Minimize Air Quality Impacts.** Minimize the air quality impacts of new development projects on established uses and nearby sensitive receptors.
- **Policy COS-9.5: Education Programs.** Partner with regional agencies to establish public education programs that provide information on ways to reduce and control emissions and make clean air choices.
- **Policy COS-9.6: Alternative Fuels.** Prioritize alternative fuel vehicles for City use, and encourage new residential, commercial, and industrial development to be equipped with vehicle electric charging stations.
- **Policy COS-9.7: Coordination.** Provide updated data to the Southern California Association of Governments to assist in updates to the Sustainable Communities Strategies and Regional Transportation Plan.
- **Policy COS-9.8: Air Quality and Climate Change Analyses.** Require detailed air quality and climate change analyses and mitigation plans for all applications that have the potential to adversely affect air quality.

#### 4.3.3 – SIGNIFICANCE THRESHOLDS

Based on the CEQA Guidelines, Appendix G: Items III (a) through (d), implementation of the GPTZCU would have a significant impact related to air quality if it would:

- A. Conflict with or obstruct implementation of the applicable air quality plan?
- B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- C. Expose sensitive receptors to substantial pollutant concentrations?
- D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
- E. Would the project cause substantial adverse cumulative impacts with respect to air quality?

#### Regional Significance Thresholds

The SCAQMD's *CEQA Air Quality Handbook's* significance thresholds, which were revised in 2019, were used for evaluating the impacts associated with the implementation of the proposed GPTZCU. The SCAQMD has established mass daily thresholds for regional pollutant emissions, as shown in Table 4.3-4.

**Table 4.3-4**  
**SCAQMD Regional Emission Significance Thresholds**

<b>Air Contaminant</b>	<b>Construction (Maximum Pounds Per Day)</b>	<b>Operation (Maximum Pounds Per Day)</b>
NO <sub>x</sub>	100	55
VOC	75	55
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
CO	550	550
Lead	3	3
Source: SCAQMD 2019b		

### Localized Significance Thresholds

In addition to establishing thresholds of significance for emissions of criteria air pollutants on a regional level, the SCAQMD has also developed Local Significance Thresholds (LSTs) that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality impacts. The LST methodology takes into account a number of factors, including (1) existing ambient air quality in each Source Receptor Area (SRA); (2) how many acres the project would disturb in a day; and (3) how far project construction and operational activities would take place from the nearest sensitive receptor. Unlike the regional emission significance thresholds presented in Table 4.3-4, LSTs have only been developed for NO<sub>x</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>. The construction and operational LSTs for one-acre, two-acre, and five-acre sites in SRA 5 (Southeast Los Angeles County), the SRA in which the City of Santa Fe Springs is located, are shown in Table 4.3-5 below.

**Table 4.3-5**  
**SCAQMD Localized Significance Thresholds for Source Receptor Area 5**

<b>Pollutant</b>	<b>Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary</b>				
	<b>82 Feet</b>	<b>164 Feet</b>	<b>328 Feet</b>	<b>656 Feet</b>	<b>1,640 Feet</b>
<b>ONE-ACRE SITE</b>					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	80	81	94	123	192
Carbon Monoxide (CO)	571	735	1,088	2,104	6,854
Particulate Matter (PM <sub>10</sub> )	4	13	30	66	173
Particulate Matter (PM <sub>2.5</sub> )	3	4	8	19	86
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	80	81	94	123	192
Carbon Monoxide (CO)	571	735	1,088	2,104	6,854
Particulate Matter (PM <sub>10</sub> )	1	3	8	16	42
Particulate Matter (PM <sub>2.5</sub> )	1	1	2	5	21



<b>TWO-ACRE SITE</b>					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	114	111	121	145	205
Carbon Monoxide (CO)	861	1,082	1,496	2,625	7,500
Particulate Matter (PM <sub>10</sub> )	7	21	39	74	182
Particulate Matter (PM <sub>2.5</sub> )	4	6	10	22	92
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	114	111	121	145	205
Carbon Monoxide (CO)	861	1,082	1,496	2,625	7,500
Particulate Matter (PM <sub>10</sub> )	2	5	10	18	44
Particulate Matter (PM <sub>2.5</sub> )	1	2	3	6	22
<b>FIVE-ACRE SITE</b>					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	172	165	176	194	224
Carbon Monoxide (CO)	1,480	1,855	2,437	3,867	9,312
Particulate Matter (PM <sub>10</sub> )	12	36	51	82	175
Particulate Matter (PM <sub>2.5</sub> )	7	10	15	30	103
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	172	165	176	194	224
Carbon Monoxide (CO)	1,480	1,855	2,437	3,867	9,312
Particulate Matter (PM <sub>10</sub> )	4	10	15	23	49
Particulate Matter (PM <sub>2.5</sub> )	2	3	4	8	25
Source: SCAQMD 2009, modified by MIG					
Note: The localized thresholds for NO <sub>x</sub> in this table account for the conversion of NO to NO <sub>2</sub> . The emission thresholds are based on NO <sub>2</sub> levels, as this is the compound associated with adverse health effects.					

### Carbon Monoxide “Hot Spots” Thresholds

Historically, to determine whether a project poses the potential for a CO hotspot, the quantitative CO screening procedures provided in the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) were used (UCD ITS, 1997). The Protocol determines a project may worsen air quality if the project increases the percentage of vehicles in cold start modes by two percent or more; significantly increases traffic volumes by five percent or more; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. With new vehicles and improvements in fuels resulting in fewer emissions, the retirement of older polluting vehicles, and new controls and programs, CO concentrations have declined dramatically in California. As a result of emissions controls on new vehicles, the number of vehicles that can idle and the length of time that vehicles can idle before emissions would trigger a CO impact has increased, so the use of LOS as an indicator is no longer applicable for determining CO impacts.

The SCAQMD does not have a methodology for screening CO hotspots. However, the Bay Area Air Quality Management District (BAAQMD) developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD, 2017; pg. 3-4). To mirror this approach, SCAQMD performed CO modeling as part of its 2003 AQMP at four busy

intersections during morning and evening peak hour periods. The busiest intersection studied in the analysis—Wilshire Boulevard and Veteran Avenue—had 8,062 vehicles per hour during morning peak hours, 7,719 vehicles per hour during evening peak hours, and approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour CO concentration for this intersection was 4.6 ppm, which is less than a fourth of the 1-hour CAAQS CO standard (20 ppm) (SCAQMD, 2003a). Thus, the BAAQMD screening threshold is generally consistent with the results of the CO modeling conducted for the SCAQMD's 2003 AQMP. Therefore, for purposes of this EIR, the GPTZCU would pose the potential for a CO hotspot if it would exceed the BAAQMD's screening traffic level for peak hour intersection traffic volumes (44,000 vehicles per hour) (thereby having the potential to result in CO concentrations that exceed 1-hour State [20 ppm], 1-hour Federal [35 ppm], and/or State and Federal 8-hour [9 ppm] ambient air quality standards for CO).

### Toxic Air Contaminant Thresholds

The SCAQMD recommends preparation of a Health Risk Assessment (HRA) for large commercial or industrial projects to determine the specific health risks posed by long-term emissions of TACs from a project. Following OEHHA and SCAQMD guidance, health risks from TAC emissions are estimated based on "Individual Cancer Risk," which is the likelihood that a person exposed to TACs over 70-year lifetime will get cancer or suffer some other "non-cancer" effect (measured by what is called as a "hazard index"). Numerous weighting factors (e.g., age sensitivity factors, breathing rates, etc.) are applied during health risk calculations to account for those members of the public who may be more sensitive to pollution than others (e.g., sensitive receptors). A project is considered to have a significant impact if it results in any of the following:

- A maximum incremental cancer risk greater than or equal to 10 in one million;
- A population-wide cancer burden greater than 0.5 (in areas where cancer risk is greater than or equal to one in a million); or
- A chronic or acute hazard index greater than or equal to 1.0.

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

In another recent Supreme Court Ruling – *Sierra Club v. County of Fresno* 6 Cal. 5<sup>th</sup> 502 (2018) – the Supreme Court held that CEQA requires a Lead Agency to make a reasonable effort to provide an appropriate, project-specific context and connection between mass pollutant emissions estimates (i.e., pounds per day or tons per year) and the potential health impacts

associated with such emissions estimates, or to explain what is and is not yet known about the GPTZCU's "bare" emissions numbers and their potential adverse health impacts.

Consistent with these court rulings, the impact discussion presented below focuses on the proposed GPTZCU's effect on air quality and existing health risks, rather than the effect of existing air quality and its potential risks on the proposed GPTZCU's residents. The analysis evaluates whether the proposed GPTZCU would create or exacerbate adverse public health risk conditions at sensitive receptor locations, as identified in the SCAQMD's CEQA significance criteria.

#### **4.3.4 – IMPACTS AND MITIGATION MEASURES**

This section describes potential impacts related to conflicts with an applicable air quality plan, cumulatively considerable net increases of criteria pollutants for which the region is in nonattainment, exposure of sensitive receptors to substantial pollutant concentrations, and objectionable odors, which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

##### **Conflicts with Local Air Quality Plan**

##### ***Impact AQ-1 – Would the GPTZCU conflict with or obstruct implementation of the applicable air quality plan?***

##### **Analysis of Impacts**

##### **City-wide**

As described in Section 4.3.1, the proposed GPTZCU is within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if the project:

- 1) Is consistent with the growth assumptions of the AQMP; and
- 2) Does not increase the frequency or severity of an air quality standards violation, or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2016 AQMP. The 2016 AQMP was designed to achieve attainment for all criteria air pollutants within the Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. Therefore, if the growth under the proposed GPTZCU is consistent with the regional population, housing, and employment forecasts identified by SCAG in the RTP/SCS, plan implementation would be consistent with the AQMP, even if emissions could potentially exceed the SCAQMD's recommended daily emissions thresholds.

The proposed GPTZCU includes land use designations that support development of up to 16,724 total dwelling units, accommodating a total population of up to 60,808 residents by 2040. The Planning Area's population would increase by approximately 13,890, from 46,918 in 2020 to 60,808 in 2040. The number of dwelling units would also increase, from 12,152 in 2020 to 16,724 dwelling units in 2040 (an increase of 4,572 dwelling units). Employment within the Planning Area would also increase, from 56,070 jobs in 2020 to 60,857 jobs by 2040, an

increase of 4,787 jobs. The 2016 RTP/SCS population and employment projections for the City of Santa Fe Springs, as well as the increase in population and employment that would occur with the implementation of the proposed GPTZCU, are shown in Table 4.3-6.

**Table 4.3-6**  
**RTP/SCS and GPTZCU Growth Assumptions**

<b>Scenario</b>	<b>Net New Population Growth</b>	<b>Net New Employment</b>
Growth in City Limits	12,059	4,605
RTC/SCS Growth 2012 – 2040	5,100	7,400
Within Growth Assumptions?	No	Yes
Source: SCAG, 2016; City of Santa Fe Springs 2021.		

As shown in Table 4.3-6, the anticipated population growth under the implementation of the proposed GPTZCU would exceed SCAG's growth potential by more than twice the amount accounted for by the 2016 RTP/SCS, while the new employment would not. Therefore, from a population growth standpoint, the proposed GPTZCU would be inconsistent with the AQMP.

Consistency Criterion 2 refers to the CAAQS and NAAQS. As described in Section 4.3.1, the Basin is designated nonattainment for national and state O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> standards. The analyses of potential emissions under Impact AQ-2 indicates the GPTZCU could result in significant emissions during construction activities. Some of these pollutants, such as NO<sub>x</sub> and ROG, are ozone precursor pollutants, and the region is designated non-attainment for ozone. The analysis contained under Impact AQ-2 also indicates the unmitigated operational ROG and NO<sub>x</sub> emissions (precursor emissions to O<sub>3</sub>) associated with implementation of the proposed GPTZCU would exceed the SCAQMD-recommended CEQA thresholds of significance, which have been designed to bring the region into attainment for CAAQS and NAAQS.

Implementation of the proposed GPTZCU would result in population growth that is in excess of that accounted for in the 2016 AQMP, while employment would be below that accounted for in the AQMP. The analysis conducted under Impact AQ-2 demonstrates that the unmitigated net change in operational emissions between existing land uses in 2040 and those proposed by the GPTZCU would exceed the SCAQMD's operational ROG and NO<sub>x</sub> CEQA thresholds of significance. Construction activities would also have the potential to exceed SCAQMD-recommended thresholds of significance. The SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD, 2003b; page D-3). Even though the mass amount of emissions attributable to a single project (i.e., pounds per day) does not necessarily contribute to air pollution levels measured throughout the Basin and in or near the City, the SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. Since the proposed GPTZCU could result in construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed GPTZCU could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards, particularly national and state ozone standards. This is considered a potentially significant impact.

#### Key Opportunity Sites

Three of the Key Opportunity Sites are already developed; the operation of the land uses in these areas contribute to the current population and employment metrics in the City, as well as overall city-wide emissions. Redevelopment activities at these sites, as well as at the

undeveloped MC&C site, would increase the number of people working and residing within the larger Planning Area. The operation of these more intense land uses would also result in more emissions compared to existing conditions. As discussed in the city-wide analysis above, the growth envisioned by the GPTZCU would be more than that accounted for in the 2016 AQMP. Development activities within the Key Opportunity Sites would contribute to this growth and, therefore, could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards, particularly national and state ozone standards. This is considered a potentially significant impact.

##### Level of Significance Before Mitigation

###### City-wide

Potentially significant.

###### Key Opportunity Sites

Potentially significant.

##### Mitigation Measures

See Mitigation Measures AQ-2A through AQ-2E.

##### Level of Significance After Mitigation

###### City-wide

The population growth that could occur under the GPTZCU by 2040 would be inconsistent with the 2016 RTP/SCS growth forecast. As discussed under Impact AQ-2, the project would implement Mitigation Measure AQ-2A, which would require the preparation of a project-specific air quality study prior to future development activities and mitigation incorporated into the project if emissions are shown to be above SCAQMD-recommended CEQA significance thresholds. Nonetheless, because it cannot be definitively known or stated at this time that construction emissions would be able to be mitigated such that all criteria air pollutant emissions would be below SCAQMD-recommended thresholds of significance, implementation of the proposed GPTZCU could still increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards in the Basin. Furthermore, operational ROG emissions would continue to exceed SCAQMD thresholds, even after the incorporation of Mitigation Measures AQ-2B through AQ-2E. For these reasons, the proposed GPTZCU would be inconsistent with the AQMP. This impact would be **significant and unavoidable**.

###### Key Opportunity Sites

As discussed in the city-wide analysis above, new development within the Planning Area would be required to implement Mitigation Measures AQ-2A through AQ-2E. Development at the Key Opportunity Sites constitutes the types of projects that would be required to prepare project-specific construction air quality assessments, provide bicycle and electric vehicle (EV) parking amenities, and comply with TDM requirements. Given the speculative nature of development at the Key Opportunity Sites, as well as the general nature of construction and operation that would occur in other locations throughout the City, it cannot be definitively known or stated at this time that development within the Key Opportunity Sites would be consistent with the growth assumptions accounted for in the 2016 AQMP, nor can it be assured that construction emissions associated with specific development proposals would be able to reduce emissions below SCAQMD-recommended threshold of significance. Given the uncertainty regarding

project-specific details and the fact that future development could cumulatively contribute to growth that is inconsistent with the 2016 AQMP assumptions, this impact would be **significant and unavoidable**.

### **Cumulatively Considerable Net Increase of Criteria Air Pollutants**

***Impact AQ-2 – Would the GPTZCU result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard?***

#### Analysis of Impacts

##### City-wide

The proposed GPTZCU sets forth the City's vision for the types of development that would occur over the next approximately 20 years. The GPTZCU's proposed land use designations permit higher development intensity within the City boundaries than compared to the existing General Plan. Criteria air pollutants and other emissions would result from construction activities, and from the operation of residences, businesses, and other land uses within the City.

GPTZCU implementation would generate short-term construction and long-term operational emissions of regulated air pollutants (i.e., criteria air pollutants and TACs). These emissions would be released to the ambient air and disperse according to the topographic and meteorological influences that prevail near the Planning Area and in the greater Basin (see Section 4.3.1). The SCAQMD has not adopted plan-level significance thresholds; however, in developing its CEQA significance thresholds, the SCAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD, 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. The SCAQMD maintains regional and localized significance thresholds to assess how individual projects may affect air quality on large and small geographic scales. The potential for construction and operational emissions associated with GPTZCU implementation to impact air quality is discussed below.

### **Construction Emissions**

The proposed GPTZCU would not directly result in construction of any development or infrastructure; however, future development supported by the GPTZCU would result in short-term construction-related criteria pollutant emissions that have the potential to have an adverse effect on air quality. Short-term criteria air pollutant emissions would occur during demolition, site preparation, grading, building construction, paving, and architectural coating activities associated with specific, new development projects. Emissions would occur from the use of equipment, worker, vendor and hauling trips, and disturbance of onsite soils (fugitive dust). ROG and NO<sub>x</sub> emissions are primarily associated with gas and diesel equipment exhaust and the application of architectural coatings. Fugitive dust emissions (PM<sub>10</sub> and PM<sub>2.5</sub>) are primarily associated with site preparation and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and VMT by construction vehicles on- and off-site. Typical pieces of construction equipment associated with development and redevelopment projects include, but are not limited to, bulldozers, graders, excavators, loaders, and trucks.

Although it is not possible to know the exact type, number, location, or duration of future construction projects, future development activities would generally entail demolition, site

preparation, grading, building construction, paving, and painting. Since Santa Fe Springs is generally a built-out city, many new projects in the city will likely require the demolition of existing structures to make room for newer ones. Fugitive dust (PM<sub>10</sub>) emissions would typically be greatest during building demolition, site preparation, and grading due to the disturbance of soils and transport of material. NO<sub>x</sub> emissions would also result from the combustion of diesel fuels used to power off-road heavy-duty pieces of equipment (e.g., backhoes, bulldozers, excavators, etc.). ROG emissions would generally be greatest during architectural coating activities. The types and quantity of equipment, as well as duration of construction activities, would be dependent on project-specific conditions. Larger projects (e.g., if the entire Metrolink Transit Oriented Communities Opportunity Site is developed as one project) would require more equipment over a longer timeframe than that required for redevelopment of a single, residential home or small residential or mixed-use project.

Given the speculative nature of construction activities that could occur under implementation of the proposed GPTZCU, it is not possible at this time to accurately assess the level of emissions that would be generated by future development and redevelopment activities in the city. It is possible that either no construction could be occurring within the city at any given time, or multiple projects could be occurring simultaneously. Despite these unknowns, it is plausible that one or more projects developed under implementation of the proposed GPTZCU could have the potential to exceed one or more of the SCAQMD's construction criteria air pollutant threshold of significance (e.g., NO<sub>x</sub> for a project involving a substantial amount of earthwork during grading, ROG during architectural coating activities, etc.). Therefore, this impact is potentially significant and requires mitigation.

#### **Operational Emissions**

If adopted, the proposed GPTZCU would accommodate new residential and non-residential land uses, some of which would involve replacing existing development. Overall, project implementation would increase residential dwelling units while reducing the non-residential square footage in the City under year 2040 growth conditions.

Growth under the GPFZCU would result in long-term regional emissions of criteria air pollutants associated with the operation of area sources, energy sources, and mobile sources. Area source emissions, which are widely distributed and made of many small emissions sources (e.g., landscaping equipment, consumer products, painting operations, etc.), were modeled according to the size and type of land uses proposed. Energy sources, which include natural gas combustion for heating and other purposes, were also modeled based on the size and type of land uses included in the GPFZCU's proposed 2040 growth forecast. Mobile-source emissions were modeled based on the daily vehicle trips that would result from the proposed GPTZCU. The net change in emissions of regulated air pollutants that would occur with implementation of the GPTZCU was modeled using CalEEMod, V. 2020.4.0. The net change in operational emissions for the GPFZCU was modeled based on the GPTZCU's 2040 growth projection, using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for proposed development intensities within the Planning Area were adjusted to reflect proposed development conditions (see Chapter 3, Project Description, Table 3-2 and Table 3-3).
- **Area Sources:** Woodstoves and hearths were excluded from new development pursuant to SCAQMD Rule 445.

- **Energy Use and Consumption:** The residential and non-residential default energy intensity factors contained in CalEEMod, Version 2020.4.0, are based on the 2019 energy code. Low-rise apartments, mid-rise apartments, and hotel land uses were assumed to be built to the 2019 energy code given they comprise the greatest amount of land use changing under proposed GPFZCU conditions. Office buildings, general retail, and single-family housing land uses are all anticipated to see moderate improvements to energy efficiency over the next approximately 20 years and were assumed, on average, to be built to 2016 energy code standards. Schools, government office buildings, and industrial land uses were assumed to have nominal improvements to energy efficiency and remain being built, on average, to the 2013 energy code standards. These adjustments were made consistent with the factors presented in the CalEEMod User Manual Appendix E, and are appropriate, because they capture the proposed nature of redevelopment that could occur under implementation of the proposed GPTZCU. The following describes the factors used to adjust the energy intensity factors for the 2019 energy code to meet the 2016 and 2013 standards.
  - **Single-family Residential:** The single-family residential electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 1.13 and a factor of 1.26, respectively, to meet the 2016 energy code standards.
  - **Multi-family Residential:** The multi-family residential electrical energy intensity and natural gas energy intensity values were left as model defaults to meet the 2019 energy code standards.
  - **Non-residential:** The non-residential electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 1.05 and a factor of 1.01, respectively, to meet the 2016 energy code standards. The adjustment factors described in Section 4.3.1 were used for the land uses that were assumed to remain being built to the 2013 energy code standards.
- **Mobile Sources:**
  - **Trip Generation and Distance:** A default CalEEMod run was conducted based on the existing land use types within the City. The weekday and weekend trip generation rates accounted for in the default CalEEMod run were used to develop the percentage of trips that occur on weekdays, Saturdays, and Sundays. The daily VMT estimates provided by Fehr and Peers for the existing land uses (approximately 3,497,835 miles per day) in the Planning Area, as presented in the Transportation Report prepared for the proposed GPTZCU, was then annualized using a multiplication factor of 347 days per year, the same factor used in CARB's 2000-2012 Greenhouse Gas Emissions Inventory, and divided through by the average trip distance (11.1 miles per trip) provided by Fehr and Peers to derive the daily trip rates, using the percentiles calculated in the default CalEEMod run. (CARB, 2014; Fehr and Peers, 2021). In total, based on the daily VMT estimate and CARB multiplication factor, land uses in the Planning Area are estimated to generate approximately 1,210,449,901 annual VMT.
  - **Emission Factors:** Vehicle emission factors were updated based on derived EMFAC20201 (Version 1.0.1) emission rates for Los Angeles County (South Coast Air Basin), consistent with the methodology described in the CalEEMod User's Guide Appendix A (CAPCOA, 2021b).



The net change in long-term operational emissions that would be generated by GPTZCU growth is shown in Table 4.3-7. As explained in Section 4.3.1, under the “Existing Emissions Levels in the Planning Area” discussion, the net change in emissions evaluated in this EIR is based on the difference between the existing land uses under future year 2040 conditions and the proposed GPTZCU land uses under 2040 growth conditions.

**Table 4.3-7  
2040 Project Growth Forecast Operational Emissions (Unmitigated)**

Emissions Scenario	Maximum Daily Pollutant Emissions (Pounds per Day) <sup>(A)</sup>									
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>			PM <sub>2.5</sub>		
					Dust	Exhaust	Total	Dust	Exhaust	Total
Project Growth Forecast Operational Emissions in Year 2040 (GPTZCU)										
Area Sources <sup>(B)</sup>	5,530	340	7,218	16	0	940	940	0	940	940
Energy Sources	35	313	221	2	0	24	24	0	24	24
Mobile Source	883	561	8,312	23	2,585	9	2,594	645	8	653
Total <sup>(C)</sup>	6,448	1,214	15,751	41	2,585	973	3,558	645	972	1,617
Existing Land Uses Year 2040 Condition <sup>(D)</sup>										
Area Sources	5,389	264	7,186	16	0	934	934	0	934	934
Energy Sources	34	303	216	2	0	24	24	0	24	24
Mobile Source	841	545	8,125	22	2,542	9	2,551	634	8	642
Total <sup>(C)</sup>	6,265	1,112	15,527	40	2,542	966	3,508	634	965	1,600
Net Change in Emissions Levels										
Area Sources	141	76	32	0	0	6	6	0	6	6
Energy Sources	1	10	5	0	0	0	0	0	0	0
Mobile Source	42	16	187	1	43	0	43	11	0	11
Total <sup>(C)</sup>	183	102	224	1	43	7	50	11	7	17
SCAQMD CEQA Threshold	55	55	550	150	150			55		
Threshold Exceeded?	Yes	Yes	No	No	No			No		
Source: MIG, 2021 (see Appendix D) and SCAQMD 2019b.										
(A) Emissions estimated using CalEEMod, V 2020.40. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, CO, SOX emissions occur during the summer. Maximum daily NOx, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions occur during the winter.										
(B) The GPTZCU area source emissions assume landscaping emissions would be held constant between no-project conditions in 2040 (i.e., continued operation of existing land uses) and conditions proposed by the GPTZCU. The City of Santa Fe Springs is generally built out, and the types of redevelopment that would occur under implementation of the GPTZCU would generally involve more intensive, vertical development. The GPTZCU would not increase the area in the City that would be required to be maintained by landscaping equipment.										
(C) Totals may not equal due to rounding.										
(D) See Table 4.3-3.										

As shown in Table 4.3-7, maximum daily operational emissions associated with potential 2040 growth under the GPTZCU do not exceed the SCAQMD's recommended regional pollutant thresholds for all pollutants except ROG and NO<sub>x</sub>. The increase in ROG and NO<sub>x</sub> are primarily attributable to the increase in VMT that would occur with implementation of the GPTZCU as well as an increase in area source emissions. As described in Section 4.3.1, the South Coast Air Basin is designated nonattainment for national and state ozone standards, and NO<sub>x</sub> is an ozone precursor pollutant.

Area sources (gas fireplaces and landscaping equipment) and mobile sources account for approximately 99% of the ROG emissions and approximately 74% of the NO<sub>x</sub> emissions estimated to occur with buildout of the proposed GPTZCU. Whereas the increases in mobile source emissions are directly attributable to increases in VMT (associated with more people living and working within the Planning Area), the increases in area sources would be due to a combination of factors, including reapplication of architectural coatings, use of consumer products (e.g., cleaning products), emissions from natural gas hearths, and landscaping equipment. The following details the primary area sources responsible for increases in ROG and NO<sub>x</sub>.

- Approximately 120 of the 141 pounds per day increase in ROG area source emissions, or 85% of the increase, would be associated with additional use of consumer products.
- All of the increase in NO<sub>x</sub> area source emissions (i.e., 76 pounds per day) would be associated with the operation of natural gas hearths in new residential development.

As described in Section 4.3.1, the South Coast Air Basin is designated nonattainment for national and state ozone standards, and NO<sub>x</sub> and ROG are ozone precursor pollutants. The exceedances of SCAQMD operational thresholds for ROG and NO<sub>x</sub> represent potentially significant impacts that require mitigation.

#### Key Opportunity Sites

Potential, future development activities at the four Key Opportunity Sites would generate construction and operational criteria air pollutant emissions. Development activities would generally entail demolition (except for the MC&C site), site preparation, grading, building construction, paving, and architectural coating activities. These activities would result in emissions of ROG and NO<sub>x</sub> associated with the combustion of fuel and the application of architectural coatings. Fugitive dust emissions would also be generated during earthmoving activities. Once operational, the new land uses would generate criteria air pollutant emissions from mobile, area, and energy sources.

There is uncertainty regarding the specific nature in which development activities at the Key Opportunity Sites would unfold. For example, the quantity of earth moving, concrete / other vendor deliveries, and types of construction equipment required to develop a building all contribute to the potential construction emissions that could be generated on a day-to-day basis. It is not possible at this time to accurately assess the quantity of construction or operational emissions that could be generated by any one project proposed within a Key Opportunity Site; however, it is anticipated that one or more projects within the Key Opportunity Sites could result in development that have the potential to exceed one or more SCAQMD-thresholds due to the potential size of the projects involved at these sites (e.g., hundreds of residential units). These potential exceedances represent potentially significant impacts that require mitigation.

Level of Significance Before Mitigation

City-wide

*Construction Emissions.* As discussed above, construction emissions associated with future development activities facilitated under implementation of the proposed GPTZCU could exceed SCAQMD-recommended CEQA significance thresholds for regional criteria air pollutant emissions. This is considered a **potentially significant impact**.

*Operational Emissions.* As shown in Table 4.3-7, the modeled, maximum daily operational emission associated with potential 2040 growth under the GPTZCU would result in ROG and NOx emissions that exceed SCAQMD-recommended CEQA significance thresholds. This is considered a **potentially significant impact**.

Key Opportunity Sites

As discussed above, construction and operational emissions associated with potential, future development activities within the Key Opportunity Sites could exceed SCAQMD-recommended CEQA significance thresholds for regional criteria air pollutant emissions. This is considered a **potentially significant impact**.

Mitigation Measures

**Mitigation Measure AQ-2A: Require a Project-level Air Quality Assessment for Conditional Uses and New Discretionary Development Projects**

Applicants shall submit a quantitative project-level criteria air pollutant and toxic air contaminant emissions analysis for conditional uses and new discretionary development projects. The project-level assessment shall address both construction and operational emissions. The estimated criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the South Coast Air Quality Management District (SCAQMD) and, if emissions are shown to be above SCAQMD thresholds, the City shall require the implementation of mitigation to reduce emissions. The project-level assessment, and identification of necessary mitigation, shall be prepared prior to discretionary project approval. Mitigation measures to reduce emissions could include, but are not limited to:

- Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);
- Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particulate Filter);
- Minimizing the idling time of diesel-powered construction equipment to two minutes; and
- Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD Rule 1113 “Low-VOC” or “Super-Compliant” requirements).

**Mitigation Measure AQ-2B: Prohibit the Installation of Natural Gas Hearths in New Residential Development**

The City shall prohibit the installation of new natural gas hearths/fireplaces in new residential development. Natural gas hearths/fireplaces may be incorporated into remodels /

redevelopment if the existing structure(s) proposed for remodel / redevelopment featured natural gas hearths/fireplaces; however, the number of natural gas hearths/fireplaces provided by the new structure(s) may not exceed that present prior to the remodel / redevelopment and must meet the most recent U.S. EPA, CARB, and/or SCAQMD emissions standards in effect at the time of building permit issuance.

**Mitigation Measure AQ-2C: Residential Electric Vehicle and Bicycle Parking Requirements**

The following Residential and Non-Residential Voluntary Measures from the CalGreen Code (Appendix A4) shall apply and be required for new residential (or residential mixed-use) development projects located in the City:

- New one and two-family dwellings and townhomes shall include electric vehicle infrastructure consistent with Section A4.106.8.1 of the CalGreen Code.
- New multi-family dwellings with 17 or more units shall provide electric vehicle charging spaces capable of supporting electric vehicle supply equipment pursuant to Section A4.106.8.2.
- New multi-family dwelling units shall provide bicycle parking pursuant to Section A4.106.9.2.

**Mitigation Measure AQ-2D: Non-Residential Electric Vehicle and Bicycle Parking Requirements**

The following Non-Residential Voluntary Measures from the CalGreen Code (Appendix A5) shall apply and be required for new non-residential (or mixed-use) development projects located in the City:

- New non-residential development with more than 10 tenant-occupants shall provide changing/shower facilities for tenant-occupants in accordance with Table A5.106.4.3 of the CalGreen code.
- New non-residential development shall provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles pursuant to the Tier 1 requirements of Table A5.106.5.1.1 of the CalGreen code. Such parking spaces shall be marked pursuant to Section A5.106.5.1.3 of the CalGreen code.
- New non-residential development shall provide electric vehicle charging spaces capable of supporting electric vehicle supply equipment pursuant to the Tier 1 requirements of Section A5.106.5.3.1 of the CalGreen code. Such spaces shall be marked pursuant to Section A5.106.5.3.3 of the CalGreen code.

**Mitigation Measure AQ-2E: Transportation Demand Management**

The City shall require all new residential and non-residential development that meets the following criteria incorporate measures to meet vehicle trip generation rates that are twenty percent lower than the standard rates as established in the most recent edition of the Institute of Transportation Engineers (ITE) trip generation manual:

- New multi-unit development of ten units or more;
- New non-residential development of ten thousand square feet or more;
- Additions to non-residential buildings that are ten thousand square feet or more in size that expand existing gross floor area by ten percent or more; and

#### 4.3 – Air Quality

- Establishment of a new use, change of use, or change in operational characteristics in a building that is ten thousand square feet or more in size that results in an average daily trip increase of more than ten percent of the current use, based on the most recent Institute of Traffic Engineers (ITE) trip generation rates.

##### Level of Significance After Mitigation

##### City-wide

*Construction Emissions.* As described in the preceding analysis, there is uncertainty regarding the specific nature of construction activities that would be facilitated under implementation of the proposed GPTZCU. Despite the implementation of Mitigation Measure AQ-2A, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation if emissions levels are shown to be above SCAQMD-recommended thresholds of significance, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed GPTZCU would be able to reduce potential criteria air pollutant emissions to levels that are below SCAQMD thresholds. Therefore, with regard to criteria air pollutant emission generated during construction activities, this impact would be **significant and unavoidable** even with the incorporation of feasible mitigation measures.

*Operational Emissions.* Mitigation Measure AQ-2B would eliminate the potential for ROG and NO<sub>x</sub> emissions to be generated during the combustion of natural gas in new hearths/fireplaces. The City would also implement Mitigation Measures AQ-2C, AQ-2D, and AQ-2E to reduce exhaust emissions of NO<sub>x</sub> and other pollutants from vehicles; however, since specific development projects are unknown, it is not possible to know the quantity of emissions that would be reduced by Mitigation Measures AQ-2C, AQ-2D, and AQ-2E. Therefore, the emissions reductions that would be achieved by Mitigation Measures AQ-2C, AQ-2D, and AQ-2E cannot be accurately quantified at this time and, therefore, have been excluded from the mitigated emissions estimates shown in Table 4.3-8 (which accounts for the reductions attributable to Mitigation Measure AQ-2B). As noted in the preceding analysis, the net change in ROG emissions associated with consumer products (area sources) is estimated to be approximately 120 pounds per day, which by itself is enough to exceed the SCAQMD regional threshold of significance of 100 pounds per day. The City is limited in its capacity to regulate the use of consumer products within the Planning Area. While the implementation of Mitigation Measures AQ-2C, AQ-2D and AQ-2E may be able to reduce mobile source ROG emissions such that emissions under proposed conditions would be less than those under existing conditions and offset the net increase in consumer product ROG emissions, it cannot be definitively known or stated at this time that the implementation of the identified measures would be capable of reducing ROG emissions to levels that are below the SCAQMD-recommended CEQA significance threshold. Therefore, this impact would be **significant and unavoidable** even with the incorporation of feasible mitigation measures.

##### Key Opportunity Sites

Similar to the discussion under the city-wide analysis above, it is not possible at this time to accurately assess potential mitigated emissions associated with future development at the Key Opportunity Sites, because specific development details are not currently known. Despite the implementation of Mitigation Measures AQ-2A through AQ-2E, construction and operational emissions associated with future development activities could exceed applicable SCAQMD thresholds. Additional analysis, consistent with Mitigation Measure AQ-2A, would be required to

evaluate potential impacts once details are known regarding the nature of development activities. Because it cannot be assured at this time that emissions would be able to be reduced below SCAQMD-recommended CEQA significance thresholds, this impact would be **significant and unavoidable**.

**Table 4.3-8  
2040 Project Growth Forecast Operational Emissions (Mitigated)**

Emissions Scenario	Maximum Daily Pollutant Emissions (Pounds per Day) <sup>(A)</sup>									
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>			PM <sub>2.5</sub>		
					Dust	Exhaust	Total	Dust	Exhaust	Total
Project Growth Forecast Operational Emissions in Year 2040										
Area Sources <sup>(B)</sup>	5,521	264	7,186	16	0	934	934	0	934	934
Energy Sources	35	313	221	2	0	24	24	0	24	24
Mobile Source	883	561	8,312	23	2,585	9	2,594	645	8	653
Total <sup>(C)</sup>	6,439	1,138	15,719	41	2,585	967	3,552	645	966	1,611
Existing Land Uses Year 2040 Condition <sup>(D)</sup>										
Area Sources	5,389	264	7,186	16	0	934	934	0	934	934
Energy Sources	34	303	216	2	0	24	24	0	24	24
Mobile Source	841	545	8,125	22	2,542	9	2,551	634	8	642
Total <sup>(C)</sup>	6,265	1,112	15,527	40	2,542	966	3,508	634	965	1,600
Net Change in Emissions Levels										
Area Sources	132	0	0	0	0	0	0	0	0	0
Energy Sources	1	10	5	0	0	0	0	0	0	0
Mobile Source	42	16	187	1	43	0	43	11	0	11
Total <sup>(C)</sup>	174	26	192	1	43	1	44	11	1	11
SCAQMD CEQA Threshold	55	55	550	150	150			55		
Threshold Exceeded?	Yes	No	No	No	No			No		
Source: MIG, 2021 (see Appendix D) and SCAQMD 2019b.										
(A) Emissions estimated using CalEEMod, V 2020.4.0. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, CO, SOX emissions occur during the summer. Maximum daily NOx, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions occur during the winter.										
(B) The GPTZCU area source emissions assume landscaping emissions would be held constant between no-project conditions in 2040 (i.e., continued operation of existing land uses) and conditions proposed by the GPTZCU. The City of Santa Fe Springs is generally built out, and the types of redevelopment that would occur under implementation of the GPTZCU would generally involve more intensive, vertical development. The GPTZCU would not increase the area in the City that would be required to be maintained by landscaping equipment.										
(C) Totals may not equal due to rounding.										
(D) See Table 4.3-3.										

### Exposure of Sensitive Receptors to Pollutants

#### **Impact AQ-3 – Would the GPTZCU expose sensitive receptors to substantial pollutant concentrations?**

### Analysis of Impacts

#### City-wide

Growth projected to occur under the GPTZCU could expose existing and new sensitive receptors to substantial concentrations of criteria air pollutants and TAC emissions that pose adverse health effects. The potential for the proposed GPTZCU to expose sensitive receptors to substantial pollutant concentrations is evaluated below.

#### **CO Hotspots**

Based on the Transportation Report prepared for the proposed GPTZCU (see Appendix F), the maximum number of vehicles moving through any study analysis zone under the GPTZCU's 2040 growth project would be less than 15,000 vehicles per hour at any intersection along Telegraph Road (during AM and PM peak hours) (Fehr and Peers, 2021). This level of traffic is substantially below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis (See Section 4.3.3). Therefore, the GPTZCU would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO. This impact would be less than significant.

#### **Construction Emissions**

As discussed under Impact AQ-2, future development activities facilitated under implementation of the proposed GPTZCU would generate emissions, including emissions of DPM (a TAC), during construction activities. These emissions would occur intermittently over the approximately 20-year growth period associated with the GPTZCU. Although specific details regarding project development within the Planning Area are not known at this time, it is possible that one or more projects developed under implementation of the proposed GPTZCU could have the potential to exceed SCAQMD LSTs and thresholds of significance for cancerogenic and non-cancerogenic health risks (see Section 4.3.3).<sup>8</sup> This represents a **potentially significant impact**.

#### **Operational Emissions**

In addition to criteria air pollutant and TAC emissions on a local scale, receptor exposure to elevated concentrations of criteria air pollutants (e.g., CO, O<sub>3</sub>, and PM) is capable of causing adverse health effects on heart, lung, and other organ systems. As described under Impact AQ-2, the proposed GPTZCU would generate cumulatively considerable ROG emissions, which is a precursor for O<sub>3</sub> – a pollutant for which the region is designated nonattainment. However, these operational ROG emissions would not expose receptors to substantial operational pollutant concentrations, as described below.

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<sup>8</sup> In addition to criteria air pollutant emissions on a regional scale and TAC emissions on a local scale, receptor exposure to elevated concentrations of criteria air pollutants (e.g., CO, O<sub>3</sub>, and PM) is capable of causing adverse health effects on heart, lung, and other organ systems. As described under Section 4.3.3, the LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality impacts.

In the amicus brief filed by the SCAQMD on the California Supreme Court's decision in *Sierra Club versus County of Fresno*, the SCAQMD noted that, "[it] takes a large amount of additional precursor emissions [e.g., NO<sub>x</sub>] to cause a modeled increase in ambient ozone levels... a project emitting only 10 tons per year of NO<sub>x</sub> or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models used to determine ozone levels..." (SCAQMD 2015). Although implementation of the GPTZCU is anticipated to increase ROG emissions within the Planning Area and greater SCAG region, any analysis linking potential adverse health risks to corresponding pollutant concentrations would be speculative for several reasons.

First to estimate potential adverse health effects from regional emissions, it is necessary to have information on the sources of the ozone precursor emissions, such as the location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors exposed to the emissions (SCAQMD 2015). While the general nature of the emissions sources occurring with implementation of the proposed GPTZCU is known (i.e., area source, energy source, mobile source), the specific location of these sources within the Planning Area is not known, nor is other information, including source emission rate, exit velocity, operating characteristics (e.g., daytime or nighttime, seasonal or steady-state), etc.

Second, after accounting for Mitigation Measure AQ-2B, approximately 24 percent of the ROG emissions estimated to occur under net 2040 growth would be from mobile sources (i.e., vehicle trips) that would potentially travel on numerous local and regional roadways throughout the Planning Area and beyond that would be subject to varying meteorological and topographical influences. These emissions would be subject to small scale air patterns, such as those formed as wind passes between buildings and other anthropogenic features (e.g., cars), creating eddies and other turbulence that affect pollutant transport. The remaining approximately 76 percent of ROG emissions would be attributable to additional use of consumer products, which would vary in temporal and spatial distribution throughout the Planning Area. Furthermore, these products may be used indoors as well as outdoors – the rate at which they are used, as well as operational characteristics of how they are used (e.g., windows opened or closed) – would affect the rate and manner that they are dispersed in accordance with wind circulation patterns in their vicinity.

Third, as mentioned previously, the SCAQMD has stated (SCAQMD 2015, pgs. 10-11):

*"For the so-called criteria pollutants, such as ozone, it may be more difficult to quantify health impacts . . . It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources . . . Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes . . . However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP [Air Quality Management Plan] showed that reducing NO<sub>x</sub> by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO<sub>x</sub> or VOC emissions from relatively small projects."*

As noted previously, the total estimated increase in ROG emissions associated with implementation of the GPTZCU is estimated to be approximately 174 pounds per day under mitigated conditions, or approximately 0.05% of the ROG increase identified by the SCAQMD in



its amicus brief filed on the California Supreme Court's decision in *Sierra Club versus County of Fresno*. As such, the minor increase in ROG emissions is anticipated to increase O<sub>3</sub> concentrations more likely in the parts per trillion range, rather than the parts per billion range. This is a magnitude of order less than the change identified by the SCAQMD.

Finally, adverse health effects associated with receptor exposure to criteria air pollutant concentrations are cumulative in nature. In other words, any potential health effects associated with GPTZCU operational emissions would also need to be considered in light of background pollutant emissions. As discussed previously in this EIR chapter, there are many efforts being undertaken at the state and regional level to reduce criteria air pollutant emissions from stationary and mobile sources. These actions are anticipated to reduce pollutant concentrations throughout the Planning Area and Basin over the next few decades. Therefore, even if the proposed GPTZCU does increase emissions in and in proximity of the Planning Area, criteria air pollutant concentrations in the region could still be lower in the future than they are currently due to the advancement of cleaner technologies.

As described above, it would be speculative to transform the mass increase in ROG emissions that could occur with implementation of the proposed GPTZCU into quantifiable health risks for several specific reasons, including the uncertain location of emission points, velocity of emissions, the meteorology and topography of the area (which could affect the transport rate and photochemical reactions needed to produce ozone), and background criteria air pollutant emissions in the future. However, given that the GPTZCU's operational ROG emissions are far less than that modeled by the SCAQMD for its 2012 AQMP, which showed a relatively minor increase in criteria air pollutant concentrations for a large amount of mass emissions, operational ROG emissions associated with implementation of the proposed GPTZCU would not result in emissions that would expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

#### **Exacerbation of Existing Sources of Pollution**

GPTZCU growth would generally add new residential development in the city and could place new sensitive receptors in proximity to existing sources of emissions, such as I-605 and local stationary sources of emissions.

Per the recent ruling by the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015), projects are not required to analyze how existing conditions might impact a project's future users or residents. As such, this analysis does not focus on potential, future receptor exposure to existing emissions from existing sources of pollutants in and near the Planning Area. Rather, it focuses on the incremental increase in pollutant concentrations and associated impacts (including adverse health impacts) that could occur if existing operations were to change as a result of GPTZCU growth.

The proposed GPTZCU generally focuses on adding new residential development in the City. As shown in Table 3-3 of the Project Description, full buildout of the proposed GPTZCU would increase the amount of residential and non-residential building space in the Planning Area, with most of potential non-residential building space coming from additional office and industrial

space.<sup>9</sup> In general, the proposed GPTZCU envisions additional growth in the form of mixed-use development. These forms of development generally do not include major sources of operational criteria air pollutant emissions (e.g., stationary sources associated with industrial developments) due to land-use conflicts with residential dwelling units on top of / in the immediate proximity of the non-residential land uses associated with the mixed-use development. Therefore, while implementation of the proposed GPTZCU would increase the amount of criteria air pollutants generated by the land uses within the Planning Area (see Table 4.3-7), it would generally focus on growth associated with land uses that have relatively minor localized sources of air pollution. The proposed GPTZCU would not result in, nor substantially exacerbate, substantial pollutant concentrations at sensitive receptor locations.

### **Additional Information on Existing Sources of Pollutants**

The proposed GPTZCU could result in new sensitive receptors being exposed to significant sources of TAC emissions. The CARB *Air Quality and Land Use Handbook* recommends avoiding the siting of new sensitive land uses (e.g., residences, schools, etc.) within:

- 300 feet of large gasoline fueling stations (with a throughput of more than 3.6 million gallons of gasoline per year);
- Within 300 feet of dry cleaning operations;
- Within 500 feet of freeways, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day; and
- Within 1,000 feet of a major rail service or maintenance yard.

A review for gas stations and dry cleaning facilities within the Planning Area indicates there may be two dry cleaning facilities and approximately 10 gas station facilities located within the City. The gas stations are generally located along Telegraph Road, Florence Avenue, and Washington Boulevard (i.e., the major east-west arterials). There are existing residential receptors near these facilities, in some cases within 300 feet. The proposed GPTZCU would locate some new residences within 300 feet of these locations; however, the City's General Plan Environmental Justice Element calls for the reduction of pollutants in residential neighborhoods and assisting existing residents in disadvantaged communities with retrofits to reduce their exposure to pollution (Policies EJ-1.1, EJ-1.2, EJ-1.4, and EJ-3.5).

As identified in Section 4.3.1 under the "Existing Air Pollution-Related Health Risks" subheading, many of the census tracts within the Planning Area are considered disadvantaged communities based on the SB 535 scoring definition. The proposed GPTZCU could result in the placement of additional, residential receptors within these census tracts; however, as noted above, the City would implement various policies to help control existing sources of pollutants and reduce receptor exposure to those pollutants. Furthermore, as identified in proposed General Plan Policy EJ-1.7, the City would coordinate with the SCAQMD to explore ways to initiate data collection efforts for a community emissions reduction and/or community air monitoring plan. The collection of this localized data would help provide additional insight into

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<sup>9</sup> Although Table 3-2 shows an increase in industrial building space, there are other, non-conforming land uses in this area (e.g., museums and other uses) that are not necessarily industrial land uses, but nonetheless contribute to the identified totals;.

the communities most adversely affected by air pollution and lay the groundwork for future actions to reduce pollutants in the City.

Although the potential exists for the GPTZCU to result in new sensitive residential receptors near existing sources of emissions, the GPTZCU would not exacerbate pollutant concentrations or health risks associated with emissions sources and, therefore, would not materially change the existing environmental risks present in the Planning Area.

#### Key Opportunity Sites

As discussed under the city-wide analysis above, implementation of the GPTZCU would not result in traffic volumes that have the potential to result in a CO hotspot, would not result in operational criteria air pollutant or TAC emissions that have the potential to expose sensitive receptors to substantially pollutant concentrations, nor would it exacerbate existing risks. The Key Opportunity Sites are located within the larger Planning Area. Therefore, for the reasons discussed under the Planning Area, so too would the Key Opportunity Sites result in less than significant impacts with regard to those evaluations.

Future construction activities associated with development activities within the Key Opportunity sites could, however, generate emissions of DPM that could expose sensitive receptors to substantial pollutant concentrations. For example, the Washington Boulevard / Norwalk Transit-Oriented Development is located in proximity to existing residential development, such as the multi-family development south of the Key Opportunity Site and single-family detached homes east of the Key Opportunity Site on Disney Avenue and Nan Street. In addition to the existing sensitive receptors in proximity of the Key Opportunity Sites, construction activities within Key Opportunity Sites themselves may introduce new sensitive receptors that could be exposed to pollutant concentrations if those receptor locations are upwind or adjacent to where development activities are occurring. Since specific details are not known regarding future development activities at the Key Opportunity Sites, future projects at these locations are considered to have the potential to exceed applicable SCAQMD cancerogenic and non-cancerogenic risk thresholds. This would be a **potentially significant impact**.

#### Level of Significance Before Mitigation

##### City-wide

*CO Hotspots.* The proposed GPTZCU would not exceed the screening threshold of 44,000 vehicles per hour. Therefore, it would not result in a CO hotspot. This impact would be less than significant.

*Construction Emissions.* As discussed under the preceding analysis and Impact AQ-2, construction emissions associated with future development activities facilitated under implementation of the proposed GPTZCU could exceed SCAQMD construction LSTs and cancerogenic and non-cancerogenic threshold maintained and recommended by the SCAQMD. This is considered a **potentially significant impact**.

*Operational Emissions.* The proposed GPTZCU would not result in a net change of criteria air pollutant emissions that would expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

*Exacerbation of Existing Sources of Pollutants.* Implementation of the proposed GPTZCU would not exacerbate existing sources of pollutants in and near the Planning Area. This impact would be less than significant.

*Additional Information on Existing Sources of Pollutants.* This information has been provided for informational purposes and is not considered part of the CEQA analysis.

#### Key Opportunity Sites

As discussed above, construction emissions associated with future development activities within the Key Opportunity Sites could expose sensitive receptors to substantial pollutant concentrations. This is considered a **potentially significant impact**.

#### Mitigation Measures

See Mitigation Measure AQ-2A.

#### Level of Significance After Mitigation

##### City-wide

*CO Hotspots.* Not applicable.

*Construction Emissions.* There is uncertainty regarding the specific nature of construction activities that would be facilitated under implementation of the proposed GPTZCU. Despite the implementation of Mitigation Measure AQ-2A, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation if emissions levels are shown to be above SCAQMD-recommended thresholds of significance for cancerogenic and non-cancerogenic risks, as well as SCAQMD LSTs, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed GPTZCU would be able to reduce potential risks and localized construction air pollutant emissions to levels that are below SCAQMD thresholds. Therefore, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities, this impact would be **significant and unavoidable** even with the incorporation of feasible mitigation measures.

*Operational Emissions.* Not applicable.

*Exacerbation of Existing Sources of Pollutants.* Not applicable.

*Additional Information on Existing Sources of Pollutants.* Not applicable.

#### Key Opportunity Sites

There is uncertainty regarding the specific nature of construction activities that could occur at the Key Opportunity Sites. Despite the implementation of Mitigation Measure AQ-2A, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation if emissions levels are shown to be above SCAQMD-recommended thresholds of significance for cancerogenic and non-cancerogenic risks, as well as SCAQMD LSTs, it cannot be definitively known or stated at this time that construction activities at the Key Opportunity sites would be able to reduce potential risks and

localized construction air pollutant emissions to levels that are below SCAQMD thresholds. Future, project-specific studies may be able to demonstrate that construction emissions could be reduced to levels that are below SCAQMD thresholds; however, this impact would be **significant and unavoidable** because specific construction emission levels cannot be verified at this time.

#### **Objectionable Odors**

***Impact AQ-4 – Would the GPTZCU result in other emissions such as those leading to odors adversely affecting a substantial number of people?***

#### Analysis of Impacts

##### City-wide

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations, such as manufacturing uses that produce chemicals, paper, etc. (e.g., asphalt batch plants, chemical manufacturing plants, composting/green waste facilities, painting/coating operations.. The GPTZCU does not propose such sources..

Construction occurring within the Planning Area could produce odors from fuel combustion or solvents/paints used. These odors would be temporary, quickly disperse, and would not affect a substantial number of people.

Under the 2040 growth projection, the GPTZCU would increase the amount of residential and non-residential development in the city, including multi-family development that could be located close to retail, restaurant, and other commercial land uses that may generate localized sources of odors that may or may not be objectionable to nearby residential land uses; however, locating future receptors in proximity of sources of odors would not constitute a CEQA impact. The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." Therefore, even if receptors are located in proximity of existing sources of odor, this would be a case of how the existing environment would impact the project, which is (generally) not an assessment required under CEQA.

The GPTZCU does not in and of itself permit or authorize any new, major sources of potential odors (e.g., wastewater treatment plant), and odor impacts would be less than significant with standard environmental review practices.

#### Key Opportunity Sites

Consistent with the discussion above for city-wide impacts, the proposed land uses for the Key Opportunity Sites would not result in operational odors. Similarly, any odors associated with construction activities would be less than significant, too.

#### Level of Significance Before Mitigation

City-wide

The potential impacts associated with objectionable odors under the proposed GPTZCU would be less than significant.

Key Opportunity Sites

Construction and operational activities associated with the land uses proposed at the Key Opportunity Sites would not generate objectionable odors. This impact would be less than significant.

Mitigation Measures

None required.

**Cumulative Impacts**

***Would the GPTZCU cause substantial adverse cumulative impacts with respect to Air Quality?***

Analysis of ImpactsCity-wide

As described in Section 4.3.1, the Basin is designated nonattainment for national and State O<sub>3</sub> standards, national and State PM<sub>2.5</sub> standards, and national PM<sub>10</sub> standards. The SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD, 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant.

The growth that could occur under the GPTZCU's 2040 growth conditions would be inconsistent with the 2016 RTP/SCS growth forecasts and, as discussed under Impact AQ-2, could result in construction (e.g., ROG and NO<sub>x</sub>) and operational (ROG and NO<sub>x</sub>) emissions that exceed the SCAQMD's recommended regional CEQA thresholds. Although the mass amount of emissions attributable to a single project (i.e., pounds per day) does not necessarily contribute to air pollution levels measured within the Basin and in or near the City, the SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. Since potential growth under the GPTZCU would be inconsistent with current AQMP projections and could lead to construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed GPTZCU could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards, particularly national and state O<sub>3</sub> standards. This is considered a **potentially significant impact**.

#### Key Opportunity Sites

The four Key Opportunity Sites are included within the Planning Area, which as described under the city-wide analysis, were shown to result in a potentially significant cumulative air quality impact. Accordingly, construction and operation of the land uses at the Key Opportunity Sites would also contribute to this **potentially significant impact**.

#### Level of Significance Before Mitigation

##### City-wide

Potentially significant.

##### Key Opportunity Sites

Potentially significant.

#### Mitigation Measures

See Mitigation Measures AQ-2A through AQ-2E.

#### Level of Significance After Mitigation

##### City-wide

The growth that could occur under the GPTZCU would be inconsistent with the 2016 RTP/SCS growth forecast and result in emissions that could increase the frequency and/or severity of air quality violations in the Basin, or otherwise impede attainment of air quality standards. Therefore, this impact would be **significant and unavoidable**.

##### Key Opportunity Sites

The land uses proposed by the four Key Opportunity Sites would contribute to the cumulative air quality impact analyzed under the GPTZCU. Despite the implementation of Mitigation Measures AQ-2A through AQ-2E, this impact would be **significant and unavoidable**.

### 4.3.5 – REFERENCES

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<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
AB	Assembly Bill
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
Basin	South Coast Air Basin
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	Carbon monoxide
DPM	Diesel particulate matter
EIR	Environmental Impact Report
GVWR	Gross vehicle weight rating
H <sub>2</sub> S	Hydrogen sulfide
HAP	Hazardous Air Pollutants
HRA	Health Risk Assessment
I	Interstate
lbs	Pounds
LOS	Level of Service
LST	Localized Significance Threshold
m <sup>3</sup>	Cubic meter
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO	Nitrogen oxide
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Oxides of nitrogen
NTP	United State National Toxicology Program
O <sub>3</sub>	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
PM	Particulate matter
ppb	Parts per billion
ppm	Parts per million
PM <sub>2.5</sub>	Fine particulate matter
PM <sub>10</sub>	Coarse particulate matter
ROG	Reactive organic gases
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur dioxide
SO <sub>4</sub> <sup>2-</sup>	Sulfates
SO <sub>x</sub>	Oxides of sulfur
SRA	Source Receptor Area

TAC	Toxic Air Contaminants
TIA	Traffic Impact Analysis
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
V.	Version
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
µg	Micrograms
%	Percent
° C	Degrees Celsius
° F	Degrees Fahrenheit

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## 4.4 – Biological Resources

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This EIR chapter addresses biological resource impacts associated with implementation of the General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are biological resources impacts identified by the CEQA Guidelines are whether the GPTZCU will: cause a substantial adverse effect on special status wildlife species; have a substantial effect on any riparian habitat/sensitive natural communities; have a substantial adverse effect on state or federally protected wetlands; interfere substantially with wildlife movement or use of wildlife nurseries; conflict with local policies protecting biological resources; or conflict with the provision of an adopted habitat conservation plan.

### 4.4.1 – ENVIRONMENTAL SETTING

The Planning Area of Santa Fe Springs has an elevation of approximately 135 feet above mean sea level (AMSL). The city is relatively flat and developed with residences and urban commercial developments. There are no Significant Ecological Areas (SEAs) designated by Los Angeles County within the Planning Area. The park system within the Planning Area consists of six smaller recognized parks (Santa Fe Springs Park, Lake Center Athletic Park, Little Lake Park, Heritage Park, Los Nietos Park, Santa Fe Springs Athletic Fields) plus the Paradise Memorial Park (a cemetery) and the Little Lake Cemetery that may provide low or marginal quality habitat for biological resources. Waterways that cross the Planning Area (La Canada Verde Creek, La Mirada Creek, Coyote Creek) are concrete-lined and therefore provide only low-quality habitat for biological resources. The nearest larger natural areas (e.g., Wilderness Park in Downey, San Gabriel River Trail, Puente Hills Reserve, and nearby parks in the foothills of the City of Whittier) that may support biological resources are markedly separate from the Planning Area. Potential issues related to biological resources within the Planning Area are discussed in detail below.

#### **Sensitive Wildlife and Plant Species**

Since the area of Santa Fe Springs has been largely developed, no populations of rare or sensitive species are known to occur within the City's limits. Due to the level of disturbance within the Planning Area, no sensitive plant species are expected to be encountered, and vegetation is primarily ruderal. Wildlife expected within the Planning Area would be non-sensitive wildlife that generally inhabit disturbed urban areas (such as raccoons, squirrels, coyotes, rats, common bird species, etc.).

The Planning Area is located on the Whittier, California 7.5-minute series United States Geological Survey (USGS) topographic quadrangle map. Table 4.4-1 shows sensitive species that have been recorded in the California Natural Diversity Database (CNDDB) for the Whittier topographic quadrangle (which encompasses the Planning Area and adjacent areas). All of these species have low potential to occur and/or are not expected to occur within the Planning Area due to the marginally suitable habitat available or lack of habitat. Historical occurrences of all special-status species within the Planning Area are believed to be extirpated, with the nearest potentially extant populations occurring outside of the Planning Area within or near the San Gabriel River or Puente Hills Preserve.

**Table 4.4-1  
Federal- and State-Listed Species and other Special Status Species**

Type	Scientific Name	Common Name	Federal, State, or Other Status	Occurrence in Planning Area
<b>Amphibians</b>	<i>Spea hammondi</i>	Western spadefoot	SSC	Low potential to occur in Planning Area.
<b>Birds</b>	<i>Athene cunicularia</i>	Burrowing owl	SSC	Low potential to occur in Planning Area.
	<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FT, SE	Low potential to occur in Planning Area.
	<i>Poliophtila californica californica</i>	Coastal California gnatcatcher	FT, SSC	Low potential to occur in Planning Area.
	<i>Riparia riparia</i>	Bank swallow	ST	Low potential to occur in Planning Area.
	<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	Low potential to occur in Planning Area.
<b>Insects</b>	<i>Bombus crotchii</i>	Crotch bumble bee	SCE	Low potential to occur in Planning Area.
<b>Mammals</b>	<i>Eumops perotis californicus</i>	Western mastiff bat	SSC	Low potential to occur in Planning Area.
<b>Reptiles</b>	<i>Aspidoscelis tigris stenjnegeri</i>	Coastal whiptail	SSC	Low potential to occur in Planning Area.
<b>Plants</b>	<i>Atriplex parishii</i>	Parish's brittle scale	1B.1	Low potential to occur in Planning Area.
	<i>Calochortus plummerae</i>	Plummer's mariposa-lily	4.2	Low potential to occur in Planning Area.
	<i>Calochortus weedii</i> var. <i>intermedius</i>	Intermediate mariposa-lily	1B.2	Low potential to occur in Planning Area.
	<i>Calystegia felix</i>	Lucky morning-glory	1B.1	Low potential to occur in Planning Area.
	<i>Dudleya multicaulis</i>	Many-stemmed dudleya	1B.2	Low potential to occur in Planning Area.
	<i>Juglans californica</i>	Southern California black walnut	4.2	Low potential to occur in Planning Area.
	<i>Lasthenia glabrata</i> ssp. <i>Coulteri</i>	Coulter's goldfields	1B.1	Low potential to occur in Planning Area.
	<i>Navarretia prostrata</i>	Prostrate vernal pool navarretia	1B.2	Low potential to occur in Planning Area.
	<i>Orcuttia californica</i>	California Orcutt grass	FE, SE, 1B.1	Low potential to occur in Planning Area.
	<i>Symphyotricum defoliatum</i>	San Bernardino aster	1B.2	Low potential to occur in Planning Area.

Relevant Species Status Codes:

FE = Federally listed as endangered; FT = Federally Threatened ; FSC = Federal Special Concern Species (a "term-of-art" for former Category 2 candidates);

ST = State Threatened; SE = State-listed as Endangered; SCE = State Candidate Endangered; SSC = California Special Concern species by CDFW;

1B.1 = Plants rare, threatened, or endangered in California and elsewhere, seriously threatened in California; 1B.2 = Plants rare, threatened, or endangered in California or elsewhere, fairly threatened in California; 4.2 = Plants of limited distribution, fairly threatened in California.

Source: California Natural Diversity Database. December 2020

### Sensitive Natural Communities and Habitats

Since the Planning Area is largely developed, no sensitive natural communities are known to occur within the City's limits. Vegetation communities within the Planning Area include only "Developed or Disturbed" land. This category refers to areas of the Planning Area that have been modified by human activity. The vegetation communities found here are generally composed of non-native ornamental trees and shrubs. Parks within the Planning Area provide very limited habitat, but trees and other plantings may support migrating songbirds, raptors, and other wildlife known to occupy disturbed urban environments. Commonly planted landscape ornamentals within the Planning Area include species such as Canary Island Pine (*Pinus canariensis*), blue gum (*Eucalyptus globulus*), sweet gum (*Liquidambar styraciflua*), oleander (*Nerium oleander*), mock orange (*Pittosporum tobira*), African daisy (*Dimorphotheca sinuate*), rosemary (*Rosmarinus officinalis*), and fountain grass (*Pennisetum setaceum*) to name a few. Non-native herbs [such as cheeseweed (*Malva parviflora*), prostrate knotweed (*Polygonum aviculare*), sow thistle (*Sonchus oleraceus*), wild radish (*Raphanus sativus*)] and grasses [e.g., (*Bromus* spp.), Johnsongrass (*Sorghum halepense*), and Bermuda grass (*Cynodon dactylon*)] are found throughout the Planning Area in vacant parcels.

### Riparian/Wetland Habitats

The Planning Area is nearly devoid of wetlands. Waterways within the Planning Area (La Canada Verde Creek and La Mirada Creek) include only concrete-lined channels that primarily support ruderal vegetation. Nonetheless, water when present may support species and even concrete-lined features are afforded protections as wetlands. Wetlands serve not only as stopovers for avian and aquatic migratory routes but also provide a unique habitat for a variety of local species. Wetlands and waters are regulated by federal, state, and local agencies, as described in section 4.4.2 below. The USFWS maintains the National Wetlands Inventory (NWI) and Wetlands Mapper System to identify the location of wetlands and riparian habitats. NWI maps are intended to provide general reference only and do not define the jurisdictional limits for any wetland regulatory program. Exhibit 4.4-2 (Wetlands and Riparian Habitat) shows the location of wetlands and riparian habitat within the Planning Area. Just outside of the Planning Area within the San Gabriel River and Downey Wilderness Park Lake, wetland areas can be found that are significantly more substantive than and features within the Planning Area.

## 4.4.2 – REGULATORY FRAMEWORK

### Federal

**Endangered Species Act (FESA) (1973).** FESA, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA NMFS), (3) prohibitions against "taking" (meaning harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". FESA also discusses recovery plans and the designation of critical habitats for listed species. Section 7 requires Federal agencies, in consultation with, and with the assistance of the USFWS or NOAA NMFS, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the



destruction or adverse modification of critical habitat for these species. Both the USFWS and NOAA NMFS share the responsibility for the administration of FESA.

**Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10.** The MBTA prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term “take” is defined as meaning, “to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires.” With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that cause nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

**The Clean Water Act Sections 404 and 401.** The United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under section 404 of the Clean Water Act (CWA) (33 USC 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent or “blueline” streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into three categories – territorial seas, tidal waters, and non-tidal waters – and is determined depending on which type of waters is present (Title 33 CFR Part 328.4(a), (b), (c)). Activities in waters of the United States regulated under section 404 include fill for development, water resource projects (e.g., dams and levees), infrastructure developments (e.g., highways, rail lines, and airports), and mining projects. Section 404 of the CWA requires a federal permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a water quality certification from the state in which the discharge originates. The discharge is required to comply with the applicable water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The EPA has delegated responsibility for the protection of water quality in California to the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

**The National Pollutant Discharge Elimination System (NPDES).** This program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. These are considered point sources from a regulatory standpoint. Generally, these permits are issued and monitored under the oversight of the SWRCB and administered by each regional water quality control board. Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the state’s General Permit for Discharges of Storm Water Associated with Construction Activity. All dischargers are required to obtain coverage under the Construction General Permit. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs) with a monitoring program. The project will require coverage under the Construction General Permit.

## State

**California Endangered Species Act (CESA)(1984).** CESA expands on the original Native Plant Protection Act (NPPA) of 1977 and enhances legal protection for plants, but the NPPA remains part of the California Fish and Game Code (CFGF). To align with FESA, CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into CESA as threatened species but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The California Department of Fish and Wildlife (CDFW) implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the California Natural Diversity Database (CNDDDB), a computerized inventory of information on the general location and status of California’s rarest plants, animals, and natural communities. During the CEQA review process, the CDFW is given the opportunity to comment on the potential of the proposed Project to affect listed plants and animals.

**Fully Protected Species and Species of Special Concern.** The classification of “fully protected” was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The CFGF sections (fish at §5515, amphibians and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with “fully protected” species states that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

Species of special concern (SSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologists, and others. It is intended to focus attention on these species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

**California Fish and Game Code sections 3503 and 3513.** According to section 3503 of the CFGF, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrow (*Passer domesticus*) and European Starling (*Sturnus vulgaris*). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MBTA, prohibiting the take or possession of any migratory non-game bird. Disturbances that cause nest abandonment and/or loss of reproductive effort are considered “take” by CDFW.

**California Fish and Game Code Sections 1600-1603.** Under section 1602 of CFGC, CDFW has authority over any proposed activity that may substantially modify a river, stream, or lake. CDFW requires notification for any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. The CDFW typically considers a river, stream, or lake to include its riparian vegetation, but it may also extend to its floodplain. The term “stream”, which includes creeks and rivers, is defined in the CCR as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life”. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as “on, or pertaining to, the banks of a stream”; therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself”.

If the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) will be prepared, which includes reasonable conditions necessary to protect those resources. The applicant may then proceed with the activity in accordance with the final LSAA. Section 1602 does not extend to isolated wetlands and waters, such as small ponds not located on drainages.

**Native Plant Protection Act (1977) (CFGC §§ 1900 through 1913).** The NPPA enacted the CDFW to carry out the Legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from “take.”

**Sensitive Plants – California Native Plant Society.** The California Native Plant Society (CNPS), a non-profit plant conservation organization, publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California. The Inventory assigns plants to the following categories:

- 1A Presumed extinct in California;
- 1B Rare, threatened, or endangered in California and elsewhere;
- 2 Rare, threatened, or endangered in California but more common elsewhere;
- 3 Plants for which more information is needed – A review list; and
- 4 Plants of limited distribution – A watch list.

Additional endangerment codes are assigned to each taxon as follows:

- .1 Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat).

- .2 Fairly endangered in California (20-80% occurrences threatened).
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that qualify for listing by CDFW and/or other state agencies (e.g., California Department of Forestry and Fire Protection). As part of the CEQA process, such species should be fully considered, as they meet the definition of threatened or endangered under the NPPA and Sections 2062 and 2067 of the CFGC. CRPR 3 and 4 species are considered to be plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFW recommend that these species be evaluated for consideration during the preparation of CEQA documents.

**Sensitive Natural Communities.** Sensitive natural communities are habitats that are either unique in constituent components, of relatively limited distribution in the region, or of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations, or by the CDFW or the USFWS. The CNDDDB identifies a number of natural communities as rare, which are given the highest inventory priority. Impacts to sensitive natural communities and habitats must be considered and evaluated under the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G)

**Natural Community Conservation Planning Act.** The Natural Community Conservation Planning (NCCP) program of the CDFW takes a broad-based ecosystem approach to plan for the protection and perpetuation of biological diversity. The NCCP program, established pursuant to the 1991 NCCP Act (Fish and Game Code 2003) is broader in its orientation and objectives than CESA or FESA. While CESA and FESA are designed to identify and protect species that have already declined in significant numbers, the NCCP program seeks to prevent species listing by focusing on the long-term stability of wildlife and plant communities.

**Section 401 of the Clean Water Act.** RWQCBs regulate activities in “waters of the state”, including wetlands, through section 401 of the CWA. “Waters of the state” are defined by the Porter-Cologne Water Quality Control Act (see below) as “any surface water or groundwater, including saline waters, within the boundaries of the state.” While the USACE administers permitting programs that authorize impacts to “waters of the US”, any USACE permit authorized for a project would be invalid unless the RWQCB has issued a project-specific water quality certification or waiver of water quality. A water quality certification requires a finding by the RWQCB that the activities permitted by the USACE will not violate water quality standards individually or cumulatively over the term of the issued USACE permit.

**Porter-Cologne Water Quality Control Act.** The Porter-Cologne Water Quality Act (Porter-Cologne Act) (California Water Code section 13260) requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the “waters of the state” to file a report of discharge” with the RWQCB through an application for waste discharge. The RWQCB protects all waters in its regulatory scope but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs (e.g. section 404 of the CWA).

## Local

### City of Santa Fe Springs 1994 General Plan

The City of Santa Fe Springs has the following Conservation Element Policies that serve to protect Biological Resources:

1.1 Continue to develop new and expand existing programs that increase the public's interest, awareness, and participation in environmental and conservation issues.

1.2 Continue to enforce the guidelines as set forth in the Master Street Tree Plan Report.

### **2021 General Plan Update**

The Open Space and Conservation Element contains the following goal and policies related to the protection of biological resources within the City:

#### **Goal COS-5: An expansive urban forest and related benefits.**

**Policy COS-5.1: Native Plants.** Encourage the use of native and climate-appropriate tree and plant species.

**Policy COS-5.2: Urban Forest.** Create a diverse and healthy urban forest on public and private lands utilizing drought-tolerant, shade trees with non-invasive root systems that are compatible with sidewalks and do not produce excessive debris. Select tree species that are not easily damaged by the high-profile trucks that predominate on the City's roadways.

**Policy COS-5.3: Tree Canopy.** Expand the urban tree canopy along streets and within expansive parking lots— connecting parks, schools, activity areas, commercial centers, and transit stops—to create comfortable walking conditions.

**Policy COS-5.4: Green Buffers.** Expand trees and landscaping to build an extensive green buffer between residential neighborhoods and freeways, rail corridors, and industrial districts to help reduce air pollution impacts. Prioritize residential neighborhoods that are designated as disadvantaged communities.

**Policy COS-5.5: Environmental Benefits.** Expand urban greening to reduce air and noise pollution, reduce and clean urban runoff, increase groundwater recharge, improve ecological diversity, and help cool neighborhoods by minimizing heat island effects.

**Policy COS-5.6: Bird Nesting.** Protect migratory and native bird nesting sites on trees and landscaping during construction and/or tree removal or trimming, with special considerations during bird nesting season and within parkland, easements, or flood control areas along the San Gabriel River and tributaries.

### **City of Santa Fe Springs Municipal Code**

The City's Municipal Code has various provisions that serve to protect biological resources. As part of protections for stormwater runoff, the City's Municipal Code Section 52.11-C1-i1 discharges of stormwater runoff that is likely to impact a sensitive biological species or habitat are required to develop a Standard Urban Stormwater Mitigation Plan (SUSMP). Further in Section 52.11-C2-f1-A, new single-family home development projects shall include mitigation measures to conserve natural areas, protect slopes and channels, and divert runoff to prevent erosion. Projects are required to have SUSMP-related BMPs incorporated into project plans to prevent stormwater runoff-related impacts. The code also contains additional requirements for compensatory damages for loss or destruction to water quality, wildlife, fish, and aquatic life, as outlined in Section 52.98-C4 as a civil action in response to violations related to stormwater runoff.

Section 96.130 *et seq.* of the City's municipal code also calls for the protection of trees during construction or repair of buildings, and outlining other measures to manage and implement its tree ordinance.

Lastly, as part of Section 153.09, hazardous waste facilities are not to be located in most wetlands or habitats of threatened or endangered species, unless the developer can demonstrate that the resources can be significantly avoided or preserved.

#### **4.4.3 – SIGNIFICANCE THRESHOLDS**

As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the proposed General Plan Update could result in a significant impact if it would:

- A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.
- C. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- E. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- F. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.
- G. Would the project cause substantial adverse cumulative impacts with respect to biological resources?

#### **4.4.4 – IMPACTS AND MITIGATION MEASURES**

This section describes potential impacts related to biological resources which could result from the implementation of the GPTZCU and recommends mitigation measures as needed to reduce significant impacts.

##### **Special Status Species Protections**

***Impact BIO-1 – Would the GPTZCU have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

##### **Analysis of Impacts**

##### City-wide

The City supports relatively dense urban development and contains no natural biological communities or resources. The San Gabriel River runs along the western boundary of the City while the Coyote Creek Flood Control Channel passes through the eastern portion of the City. These two facilities are maintained for flood control purposes and not for biological habitat adjacent or within the City. Therefore, the City does not contain any habitat or areas that support listed or otherwise sensitive species, and such species would have little to no potential to occur within the Planning Area. There are no sensitive plants and animal species identified by the California Natural Diversity Data Base or other relevant sources as having the potential to occur within the Planning Area. This is why the existing 1994 General Plan and the proposed 2021 General Plan Update each contain only one goal and a few related policies concerning biological resources (i.e., they would not negatively impact special-status species as none are present). Therefore, it is not expected that any new impacts would occur to special-status species as part of implementation of this GPTZCU.

##### Key Opportunity sites

The MC&C site is currently vacant while the other three sites are all developed and in urbanized settings. They contain no habitat or other resources that could support listed or otherwise sensitive species of plants or animals. They also do not contain any native vegetation or sensitive plant communities which would support listed or otherwise sensitive species. Due to their past disturbance and level of urban development on and around the sites, no survey for biological resources will be needed to develop these sites. Therefore, their development will have no significant impact on these resources.

##### General Plan Update

The Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-5 and Policies COS-5.2 through 5.5 which mainly support urban forestry in the City, and existing and future trees within the Planning Area would continue to support a variety of bird species tolerant of human activity and proximity. Policy COS-5.1 encourages the use of native plants in landscaping. In addition, Policy COS-5.6 encourages the protection of migratory and native bird nesting sites in trees and landscaping during construction and/or tree removal or trimming, with special considerations during bird nesting season and within parkland, easements, or flood control areas along the San Gabriel River and tributaries.

Based on the lack of resources and the urbanized nature of the City, implementation of the GPTZCU, including the four key opportunity sites, will not result in any significant impacts to listed or otherwise sensitive species or their habitats.

##### **Level of Significance Before Mitigation**

Less than significant.

##### **Mitigation Measures**

None required.

##### **Sensitive Natural Communities**

***Impact BIO-2 – Would the GPTZCU have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?***

## **Analysis of Impacts**

### City-wide

Due to the densely developed urban setting of Santa Fe Springs, there is little or no potential for natural biological communities, sensitive riparian habitat or other sensitive natural communities to occur within the Planning Area. The San Gabriel River runs along the western boundary of the City while the Coyote Creek Flood Control Channel passes through the eastern portion of the City. However, these two facilities are maintained for flood control purposes and do not provide significant biological habitat adjacent to or within the City.

The existing 1994 General Plan and the proposed 2021 GPTZCU do not contain goals or policies concerning biological resources that would negatively impact any riparian habitat or other sensitive natural community. Therefore, it is not expected that any new impacts would occur to sensitive riparian habitat or other sensitive natural communities as part of implementation of this GPTZCU.

### Key Opportunity sites

The MC&C site is currently vacant while the other three sites are all developed and in urbanized settings. They contain no riparian habitat, wetlands, or other resources of concern to state and federal resource agencies. They also do not contain any sensitive natural (plant) communities. Due to their past disturbance and level of urban development on and around the sites, no survey for biological resources will be needed to develop these sites. Therefore, their development will have no significant impacts on these resources.

### General Plan Update

The Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-5 and Policies OSC-8.2 through 8.6 which mainly support urban forestry in the City. However, there are no riparian or wetland-related resources in the City. Policy COS-5.1 encourages the use of native plants in landscaping. In addition, Policy COS-5.6 encourages the protection of migratory and native bird nesting sites in trees and landscaping during construction and/or tree removal or trimming, with special considerations during bird nesting season and within parkland, easements, or flood control areas along the San Gabriel River and tributaries.

Based on the lack of riparian and related resources, and the urbanized nature of the City, implementation of the GPTZCU, including development of the four key opportunity sites, will not result in any significant impacts on riparian habitat or other sensitive natural communities of concern to federal or state resource agencies.

## **Level of Significance Before Mitigation**

Less than significant.

## **Mitigation Measures**



None required.

### **Wetland Conservation**

***Impact BIO-3 – Would the GPTZCU have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

### **Analysis of Impacts**

#### City-wide

The San Gabriel River runs along the western boundary of the City while the Coyote Creek Flood Control Channel passes through the eastern portion of the City. These two facilities are maintained for flood control purposes and not for biological habitat adjacent to or within the City. The existing General Plan already contains several protection measures for water resources and water quality and requires compliance with federal, state, and local laws concerning protection of waterways within the Planning Area. However, the 2021 GPTZCU does not contain any new goals or policies relative to state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) since these resources are not present within the Planning Area. Therefore, implementation of the GPTZCU would not have any significant impacts would occur to state or federally protected wetlands, vernal pools, or similar water-related features.

#### Key Opportunity sites

The MC&C site is currently vacant while the other three sites are all developed and in urbanized settings. They contain no wetland, vernal pools, or related habitat, wetlands, or other water-related resources that would be of concern to state and federal resource agencies. Therefore, their development will have no significant impacts on these resources.

#### General Plan Update

The Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-5 and Policies COS-5.1 through 5.6 which mainly support urban forestry and nesting bird habitat (trees). However, there are no wetlands or related resources within the City so there are no General Plan goals or policies that directly address such resources.

Based on the lack of wetlands and related resources, and the urbanized nature of the City, implementation of the GPTZCU, including development of the four key opportunity sites, will not result in any significant impacts on state or federally protected wetlands through direct removal, filling, or hydrological interruption.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Fish and Wildlife Movement**

***Impact BIO-4 – Would the GPTZCU interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

## **Analysis of Impacts**

### City-wide

Although the San Gabriel River runs along the western boundary of the City and the Coyote Creek Flood Control Channel passes through the eastern portion of the City, these two flood control facilities do not provide habitat that would support the significant movement of fish or wildlife species within or through the City. Due to its densely developed urban setting, the Planning Area does not contain any important natural biological communities, protected wildlife corridors, or protected wildlife nursery sites. The existing 1994 General Plan and the proposed 2021 GPTZCU contain only one goal and some related policies (i.e., due to the lack of biological resources). Therefore, no significant impacts to fish and wildlife movement would be expected as part of implementation of the 2021 GPTZCU.

### Key Opportunity sites

The MC&C site is currently vacant while the other three sites are all developed and in urbanized settings. They contain no riparian habitat, wetlands, or other resources of concern to state and federal resource agencies. They also do not contain any important habitat or other biological resources, would not impact movement of fish or bird species, and no surveys for such resources are required to develop these sites. Development of these areas would need to provide onsite landscaping including trees per City requirements. Therefore, their development will have no significant impacts on wildlife movement or nursery sites.

### General Plan Update

The Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-5 and Policies COS-5.2 through 5.5 which mainly support urban forestry in the City. Existing and future trees within the Planning Area would support a variety of bird species tolerant of human activity and proximity, including migratory species. In addition, Policy COS-5.6 encourages the protection of migratory and native bird nesting sites in trees and landscaping during construction and/or tree removal or trimming, with special considerations during bird nesting season and within parkland, easements, or flood control areas along the San Gabriel River and tributaries.

Based on the lack of identified wildlife movement corridors or nursery sites, and the urbanized nature of the City, implementation of the GPTZCU, including development of the four key opportunity sites, will not result in any significant impacts on the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

## **Level of Significance Before Mitigation**

Less than significant.

## **Mitigation Measures**

None required.

#### **Conflicts with Local Biological Resources Plans**

***Impact BIO-5 – Would the GPTZCU conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

#### **Analysis of Impacts**

The 2021 GPTZCU does not conflict with any local policies or ordinances protecting biological resources. Further, the existing 1994 General Plan and the proposed 2021 GPTZCU do not contain goals or policies concerning biological resources that would negatively impact fish and wildlife movement.

The City's Municipal Code (MC) has several sections that help protect biological resources. MC Section 52.11-C1-i1 controls discharges of stormwater runoff that could impact a sensitive biological species or habitat (even though none are considered present in the City). In addition, MC Section 52.11-C2-f1-A controls runoff and erosion from new development. The code also contains additional requirements for compensatory damages for loss or destruction to water quality, wildlife, fish, and aquatic life, as outlined in section 52.98-C4 as a civil action in response to violations related to stormwater runoff.

MC Section 96.130 calls for protection of trees during construction or repair of buildings, and outlining other measures to manage and implement its tree ordinance.

Therefore, the GPTZCU will not result in any conflicts with any local policies or ordinances protecting biological resources.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

None required.

#### **Habitat Conservation Plans**

***Impact BIO-6 – Would the GPTZCU conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

#### **Analysis of Impacts**

##### City-wide

According to the California Department of Fish and Game, Natural Community Conservation Planning (NCCP) Program website, the City is not located within an adopted or proposed NCCP (CDFW, 2021). According to the U.S. Fish and Wildlife Service website, Habitat Conservation Plan, the City is not located within an adopted or proposed Habitat Conservation Plan (HCP)(USFWS, 2021). These websites indicate the City is not located within any designated local, regional, or state habitat conservation plan. Therefore, the 2021 GPTZCU does not contain any goals or policies that address these types of plans.

#### Key Opportunity sites

Since there are no HCPs or NCCPs in or adjacent to the City, development of the four key opportunity sites would not impact these types of plans.

#### General Plan Update

Since none of these habitat plans are present in or adjacent to the City, the GPTZCU would not result in any conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

None required.

#### **Cumulative Impacts**

***Impact BIO-7 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to Biological Resources?***

#### **Analysis of Impacts**

As outlined in Impact BIO-6 above, the Planning Area does not contain any significant biological resources, including sensitive habitat or habitat that could support listed or otherwise sensitive species. The GPTZCU will help protect local water quality which will in turn support any downstream regional biological resources associated with the San Gabriel River or the Coyote Creek Flood Control Channel. The GPTZCU will not contribute to substantial adverse cumulative impacts to biological resources, as the GPTZCU is primarily in a developed urban area and no natural areas are targeted for development under the GPTZCU. Therefore, cumulative impacts to biological resources from future development under the GPTZCU, including the four key opportunity sites, are expected to be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **4.4.5 – REFERENCES**

California Department of Fish and Game (CDFW), Natural Community Conservation Planning (NCCP) Program website [accessed September 2021].

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#### 4.4 – Biological Resources

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## 4.5 – Cultural Resources

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This EIR chapter addresses potential impacts to archaeological and historic resources associated with implementation of the General Plan and Targeted Zoning Code Update (GPTZCU). The chapter will evaluate whether the GPTZCU will cause a substantial adverse change in the significance of a historic resource, destroy a unique archaeological resource, or disturb human remains.

### 4.5.1 – ENVIRONMENTAL SETTING

#### Historic Resources

Santa Fe Springs has a long and rich history, evolving from its early period as an agricultural community to its current form as an industrial city. The following highlights key moments in the City's history.

#### ***Los Nietos Township***

A Spanish Land Grant to Jose Manual Nieto in 1784 marked the arrival of Europeans. According to Colonel J.J. Warner, the community of Los Nietos had 200 residents in 1836. In 1867, a post office, two stores, a schoolhouse, and a saloon were established. The principal crops and livestock were corn, barley, beans, sheep, and hogs.

#### ***Fulton Wells***

In 1874, Dr. James E. Fulton discovered a sulfur spring and developed a health spa and small hotel in present-day Santa Fe Springs, generating a modest tourism industry. The community was called Fulton Wells.

#### ***Railroads***

The Atchison, Topeka & Santa Fe Railway purchased land from Dr. Fulton in 1886 to develop a railroad line from Los Angeles to San Diego. The City's name derives from the Atchison, Topeka & Santa Fe Railway combined with the springs Dr. Fulton discovered. The arrival of German immigrants and the establishment of a Quaker Colony resulted in the establishment of the adjacent town of Whittier. In the 1890s, the Southern Pacific Railroad built a train depot in Whittier, branching off from its main line in Santa Fe Springs. The Southern Pacific Railroad's Whittier line served commuters between Los Angeles, Huntington Park, and intermediate communities, passing through Santa Fe Springs on its way to the Whittier depot. The Pacific Electric Railway's La Habra-Yorba Linda line opened in 1911 with a bridge crossing the San Gabriel and the electrical substation located near Norwalk Boulevard, both of which are still intact as of 2020. This line later closed in 1938 due to poor ridership. The service of three railroad systems contributed to Santa Fe Springs' regional prominence as an industrial and manufacturing hub. In 1914, Los Nietos was described in the Los Angeles Times as "strategically located as a manufacturing center with railways, water, and electric current." All three rail lines came together at Los Nietos Junction.

#### ***Oil***

In 1907, a local sheepherder, Marius Meyer, invited Union Oil Company to poke around his land in search of oil. After two unsuccessful wells, the third well started flowing at 3,000 barrels a

day, near the intersection of Norwalk Boulevard and Telegraph Road, nearly 10 years after Mr. Meyer's invitation. Another rancher, Alphonzo Bell, was also certain oil was on his land. Standard Oil declined his request to search for oil on his ranch, citing Union Oil's early issues on Mr. Meyer's property. It was later determined that two-thirds of Bell's property was atop one of the world's richest pools of oil. In 1921, the Union-Bell well set off an oil rush by major oil companies with a 2,500-barrel gusher. Within a year, the Santa Fe Springs oil field was considered one of the richest sources of oil in petroleum history. Oil remained Santa Fe Springs' primary economic driver into the 1980s.

### **Historic Sites**

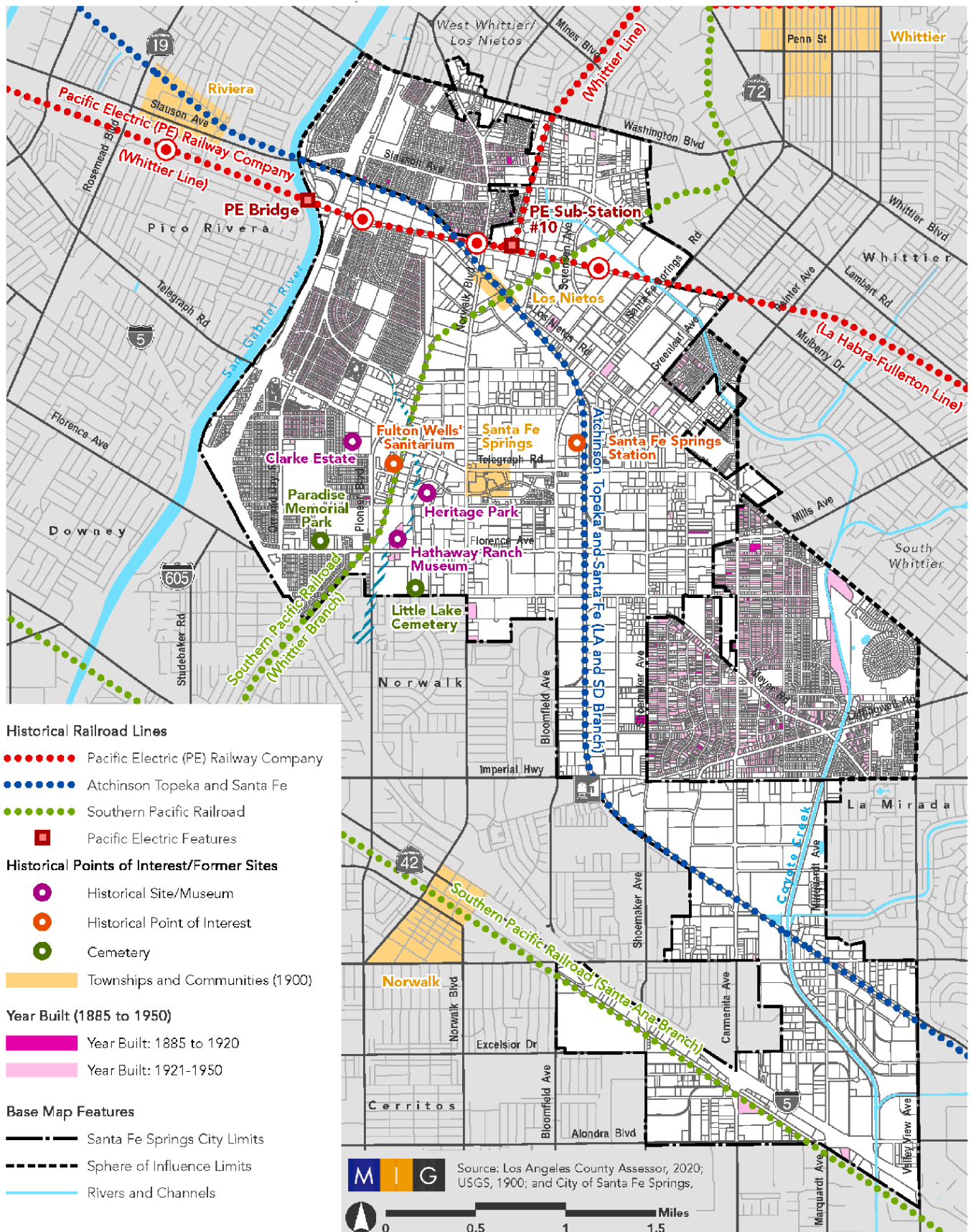
Santa Fe Springs' historical points of interest are listed below and shown on Exhibit 4.5-1 (Historic Resources).

- **Clark Estate.** Famed architect Irving Gill built the Clarke Estate for Chauncey and Marie Rankin Clarke between 1919 and 1921. The 8,000 square-foot residence is built around a central courtyard decorated with Tuscan-style columns and arches, on 60 acres of citrus groves. The Clarks lived at the estate briefly as they were annoyed by the discovery of oil close to their home. Many of Irving Gill's buildings have been destroyed across Southern California; thus, the Clarke Estate represents a unique resource. The Clark Estate was listed on the National Register of Historic Places in 1990.
- **Hathaway Ranch Museum.** The Hathaway Ranch Museum is a private museum holding farming, ranching, and oil drilling equipment from the late 1800s to the mid-1900s. The museum provides hayrides, antique engine demonstrations, and tours.
- **Heritage Park.** Heritage Park is a six-acre, reconstructed ranch estate from the late 1800s. The park is located within a corporate center and features a museum and railroad exhibit. The park is currently operated by the Santa Fe Springs Community Services Department and is available by reservation.
- **Historical Railroad Exhibit.** The Historical Railroad Exhibit located at Heritage Park presents a cross-section of local railroad history. The exhibit uses a restored No. 870 locomotive and historical railroad equipment and buildings to demonstrate the importance of the railroad to the Southern California region.

### **Archaeological Resources**

Before the arrival of Spanish settlers in the 1700s, the area that would later become Santa Fe Springs consisted of Tongva People that inhabited a village called Sejatnga near the current City of Whittier and the San Gabriel River. By 1806, the Tongva were providing labor for Spanish missions. The area was part of the early Spanish rancho of Jose Manuel Nieto, the holder of the largest Spanish land grant in California, stretching from the Pacific Ocean to the Puente Hills. Puente Hills, located in an unincorporated area just north of the City of Whittier, contains archaeological and paleontological resources that pre-date Spanish and Mexican land grants, dating back thousands of years and reflecting Native American settlement patterns. Given the long history of Native American settlement in the region, followed by Spanish and Mexican rule, there is a high probability of finding prehistoric (archaeological) resources in the Planning Area.

As noted in the previous environmental review for the General Plan, at least one prehistoric site is known within the City (CA-LAN-182, observed in 1950), which was described as a "historic Gabrielino Village." The exact location of this archaeological site is vague and lists three possible locations for the site, only two of which are located within the Planning Area.



## Exhibit 4.5-1 Historic Resources

Santa Fe Springs General Plan Update and Targeted Zoning Code Update  
Santa Fe Springs, California





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## 4.5.2 – REGULATORY FRAMEWORK

### Federal

**National Historic Preservation Act of 1966.** Enacted in 1966, the National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings.

**Section 106 of the Federal Guidelines.** Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings. The Section 106 process also gives Federally recognized Native American Tribes the chance to consult and comment on the project before it can be finalized.

**National Register of Historic Places.** The NRHP was established by the NHPA of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B: It is associated with the lives of persons who are significant in our past.

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a

resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

**Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.** The NAGPRA of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation

## **State**

**California Environmental Quality Act (CEQA).** CEQA provides criteria to evaluate whether a building, structure, object, or site is significant. Under CEQA Guideline §15064.5(a), historic resources include the following: (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.) (2) A resource included in a local register of historical resources, as defined in §5020.1(K) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of §5024.1 (g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant. (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, providing the lead agency's determination is supported by substantial evidence in light of the whole record.

Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following: (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (B) Is associated with the lives of persons important in our past; (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (D) Has yielded, or may be likely to yield, information important in prehistory or history. (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to §5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in §5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code §5020.1(j) or 5024.1. In accordance with CEQA, properties designated or eligible at all levels are deserving of protection by a lead agency when any undertaking proposes to demolish or alter any such property.

**California Register of Historical Resources.** Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical

resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change (CA Public Resources Code).” Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (Public Resources Code):

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has elapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

**California Historical Landmarks (CHLs).** CHLs are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California); or
- Associated with an individual or group having a profound influence on the history of California. A prototype of, or an outstanding example of, a period, style, architectural movement, or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

**California Points of Historical Interest.** California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Point or Points) designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement, or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

**Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991.** Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

**California Native American Graves Protection and Repatriation Act of 2001.** Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to “provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect,” the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

**Senate Bill (SB) 18.** California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission’s SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local

government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

**Assembly Bill (AB) 52.** Specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to CEQA projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

**Health and Safety Code, Sections 7050 and 7052.** Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

**Penal Code, Section 622.5.** Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

## Local

### City 1994 General Plan

The 1994 General Plan includes the following goals and policies regarding cultural resources:

#### *Land Use Element*

- 20.1** Provide the community with the opportunities to appreciate the City's significant history through historical exhibits, the preservation of Heritage Park, and the Clarke Estate.
- 20.2** Administer historical, cultural, and recreational programs within the community and provide opportunities for family-oriented events.
- 20.3** Operate and promote the Heritage Artwork in Public Places Program as a means of enhancing the urban environment and creating a stimulus for constructive behavior and thought.
- 20.4** Provide visual and performing arts opportunities for young people to the extent allowable through the Heritage Art Fund in order to help them actualize a full range of potential skills and interests.

*Open Space/Conservation Element*

**Goal 3.0:** Ensure that historically significant buildings and properties are identified and preserved to the greatest extent possible.

**Policies**

- 4.1** Ensure that any future additions to the [Heritage Artwork in Public Places] program are appropriate, of superior quality, placed in unrestrictive settings, and highly selective.
- 4.2** Expand on the children's educational programs that highlight the visual and performing arts.
- 4.3** Consider the development of a multicultural museum and center.

**2021 General Plan Update**

The GPTZCU contains the following goals and policies to help identify and protect historical and archaeological resources within the Planning Area:

*Land Use Element*

**Goal LU-12 City's historical and cultural assets are protected, preserved, and celebrated.**

**Policy LU-12.1: Historical.** Sites of historical or cultural interest should be preserved and where applicable, enhanced.

**Policy LU-12.2: Historic Preservation.** Assess the historical significance of additional properties and encourage the preservation of public and private buildings which are of local, historical, or cultural importance.

**Policy LU-12.3: Archaeological Resources.** Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.

**Policy LU-12.4: Cultural Resources.** Review all development and redevelopment proposals for the possibility of cultural resources, including the need for individual cultural resource studies, including subsurface investigations.

**Policy LU-12.5: Railroad History.** Expand historic preservation and education that focuses on the City's railroad historic resources and remaining historical articles and facilities.

**Policy LU-12.6: Historic District.** Consider evaluating and designating the Civic Center and Heritage Park properties into a Historic District that reflects multiple periods of significance.

**Policy LU-12.7: Promoting Historic Resources.** Promote and utilize historic and cultural resources in the community, including the Clarke Estate and Heritage Park, as a means of bolstering economic development.

**4.5.3 – SIGNIFICANCE THRESHOLDS**

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

- A. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?
- B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?
- C. Disturb any human remains, including those interred outside of dedicated cemeteries?
- D. Would the project cause substantial adverse cumulative impacts with respect to cultural resources?

#### 4.5.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to historic resources, archaeological resources, and human remains which could result from the implementation of the GPTZCU and recommends mitigation measures as needed to reduce significant impacts.

##### Historic Resources

***Impact CUL-1 – Would the GPTZCU cause a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5?***

##### Analysis of Impacts

###### City-Wide

There are two historic resources within the City that are currently listed on both the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP): The Clarke Estate, and the Hawkins-Nimocks Estate-Patricio Ontiveros Adobe. No other built environment historic resources are currently listed on either register. The City does not have a local historic inventory, and thus there are no locally significant historic resources listed on a register.

Although only two historic resources are currently listed on historic registers, there are several other known historic sites and points of interest in the City. These include the Hathaway Ranch Museum, Heritage Park, Fulton Wells' "Sanitarium" (hotel and spa), and Santa Fe Springs Station (railroad).

There are several historic period railroad lines that pass through the City that have links with the early history of the City and its development that could have the potential to be listed on the CRHR. These railroads are the Atchison Topeka and Santa Fe branch line, the Southern Pacific Railroad Whittier line, the Pacific Electric La Habra-Fullerton line, and the Pacific Electric Whittier line, as shown in Exhibit 4.5-1 (Historic Resources).

Additionally, there are three cemeteries; Paradise Memorial Park, Little Lake Cemetery, and Olive Grove Cemetery, within the GPTZCU area, all of which date from a historic period, contain historic era graves and monuments, and have the potential to be considered historic resources under CEQA.

Based on parcel and City records, there are a number of properties within the City boundary that were built prior to 1950, and several built before 1920. In the City's sphere of influence (SOI) outside the City boundaries, but within the Planning Area, there are a significant number of properties both built prior to 1950, and prior to 1920 (Exhibit 4.5-1). Although age is not a final determining factor that a building is eligible for inclusion on a historic register, it acts as an



indicator that there is potential for a building to be considered for inclusion on a historic register, and that historic evaluation may be required.

Although no older buildings are marked within the early location of the townships/communities of Santa Fe Springs, and Los Nietos, there may be historic remnants or historic structures still present above or below the current ground level.

The Planning Area has a long-established history of settlement and contains numerous historic era structures, many of which may be eligible for inclusion on a historic register. Future development under the GPTZCU may result in adverse impacts or removal of historic buildings or resources.

#### Key Opportunity Sites

Three of the four opportunity sites are developed and all are in urbanized settings - only the MC&C site is currently vacant. None of these sites contain any historical buildings or facilities and no additional assessment of historical resources will be required to develop these sites. Development of these four opportunity sites to urban standards (e.g., height, lot coverage, setbacks, landscaping) similar to those of surrounding uses, depending on the appropriate zoning classification, will not result in any impacts related to historical resources.

#### GPTZCU Policies

The Land Use Element of the proposed GPTZCU contains several goals and policies which will identify, preserve, and protect the City's historic resources. Goal LU-12 encourages the City to protect and preserve its historical resources and is supported by Policies LU-12.1 to LU-12.4 and LU-12.6 to adequately assess potential resources and protect them when needed. Policy LU-12.7 requires the City to consider evaluating and possibly combining the Civic Center and Heritage Park properties into a Historic District. Finally, Policy LU-12.5 focuses on expanding historic preservation and education activities of the City's railroad historic resources.

The GPTZCU goals and policies serve to protect existing resources, assess the historic significance of public and private buildings, focus on protecting railroad heritage, consider the establishment of historic districts, and promote historic resources. With these goals and policies, and the City's development requirements to review CEQA documents for impacts to historic resources, potential impacts to historic resources by future development within the Planning Area will be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Archaeological Resources**

***Impact CUL-2 – Would the GPTZCU cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

#### **Analysis of Impacts**

### City-Wide

Prior to European contact, the Planning Area was inhabited by the Gabrieleño Indian Tribe for many thousands of years. Development began in the Santa Fe Springs area in the first half of the 19<sup>th</sup> century, but the surrounding area is known to contain archaeological resources that pre-date Spanish and Mexican land grants. Additionally, the Planning Area is located adjacent to the modern route of the San Gabriel River. The river in prehistory changed its course with winter floods and would have flowed over the alluvial soils in the planning area. Native Americans would have used the natural resources of the San Gabriel River and its tributaries as a source of water and food. It is almost certain the Planning Area would have been utilized heavily by the indigenous people living in this area for thousands of years.

Much of the City is heavily developed, greatly reducing the potential for the discovery of archaeological resources. Areas that could have the potential for discovery include undeveloped land and prior development with shallow foundations.

The original locations of the townships/communities of Santa Fe Springs, and Los Nietos have the highest potential for early historic period archaeological resources, although extensive modern development in these areas has reduced this chance significantly.

Future development in the Planning Area may uncover buried archaeological resources, however, this is not considered to be likely but would have a higher potential on vacant land or when replacing buildings that have shallow foundations.

### Key Opportunity sites

Three of the four opportunity sites are developed and all are in urbanized settings - only the MC&C site is currently vacant. None of these sites contain any identified archaeological or tribal cultural resources. Due to their past level of disturbance, it is unlikely that development of the sites would require cultural resource assessments. However, due to the long history of Native American occupation in the Los Angeles basin, developers of these sites should enter into grading monitoring agreements with the appropriate Native American tribal representatives.

### Native American Consultation

On February 17, 2021, the City sent notices to the following nine (9) Native American Tribes/Tribal Representatives to determine if they wished to consult with the City regarding the GPTZCU:

#### **Native American Tribal Group**

Gabrieleno Band of Mission Indians - Kizh Nation  
 Gabrieleno/Tongva San Gabriel Band of Mission Indians  
 Gabrielino /Tongva Nation  
 Gabrielino Tongva Indians of California Tribal Council  
 Gabrielino-Tongva Tribe  
 Juaneno Band of Mission Indians - Acjachemen Nation  
 Santa Rosa Band of Cahuilla Indians  
 Soboba Band of Luiseno Indians  
 Soboba Band of Luiseno Indians

#### **Tribal Representative**

Andrew Salas, Chairperson  
 Anthony Morales, Chairperson  
 Sandonne Goad, Chairperson  
 Robert Dorame, Chairperson  
 Charles Alvarez  
 Matias Belardes, Chairperson  
 Lovina Redner, Tribal Chair  
 Scott Cozart, Chairperson  
 Joe Ontiveros

As of the publication of this Draft EIR, the 30-day AB 52 and the 90-day SB 18 consultation periods had expired and only the Gabrieleno Band of Mission Indians - Kizh Nation initially indicated a desire to consult with the City on the GPTZCU. However, upon learning there was no specific ground disturbance proposed as a direct result of the GPTZCU, Ms. Brandy Salas with that tribe indicated in an email to Mrs. Ahn Wood with the City dated May 11, 2021, that they no longer needed to consult regarding the GPTZCU but would want to consult with the City on any future actions that did result in ground disturbance. This information is also included in Section 4.18 (Tribal Cultural Resources).

#### General Plan Update

Even with the heavily developed nature of the City, the Land Use Element of the proposed GPTZCU does contain Goal LU-12 which emphasizes protecting and preserving the City's cultural heritage. Its supporting Policy LU-12.3 will assure that all development addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process when appropriate.

The General Plan Update goals and policies serve to protect existing archaeological resources by analyzing future proposed development projects as needed for cultural resources surveys. With these goals and policies, and the City's development requirements to review CEQA documents for impacts to archaeological resources, potential impacts to archaeological resources by future development within the Planning Area will be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Human Remains**

***Impact CUL-3 – Would the GPTZCU disturb any human remains, including those interred outside of formal cemeteries?***

#### **Analysis of Impacts**

##### City-Wide

There are three formal cemeteries within Santa Fe Springs: Paradise Memorial Park, Little Lake Cemetery, and Olive Grove Cemetery, all of which date from a historic period and contain historic-era burials. These cemeteries have established boundaries, and it is unlikely that burials at these cemeteries would be found outside the established boundaries. However, Native Americans have occupied this region for thousands of years, and so it is possible that human remains could be discovered during excavation for development, especially on previously undisturbed land.

Section 7050.5 of the California Health and Safety Code (CHSC) requires that, if human remains (or remains that may be human) are discovered on a project site during grading or earthmoving, the construction contractors, project archaeologist, and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The project

proponent must then immediately inform the County Coroner and the City of the find. The coroner is permitted to examine the remains under CHSC Section 7050.5(b) to determine if the remains are those of a Native American. If human remains are determined as those of Native American origin, the applicant must comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the Native American Heritage Commission (NAHC) as outlined in Public Resources Code Section (PRC) 5097. The coroner then contacts the NAHC to determine the Most Likely Descendant (MLD) who will conduct an inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains is to be overseen by the MLD to determine the most appropriate means of treating the human remains and any associated grave artifacts, in consultation with the property owner and the lead agency (in this case the City of Santa Fe Springs). CEQA requires the City and any project developer, including the City if it is a public works project, to comply with the CHSC Section 7050.5 and PRC 5097 if human remains are found during excavation.

#### Key Opportunity sites

Three of the four opportunity sites are developed and all are in urbanized settings - only the MC&C site is currently vacant. None of these sites contain any identified tribal cultural resources. Due to their past level of disturbance, it is unlikely that development of the sites would require cultural resource assessments. However, due to the long history of Native American occupation in the Los Angeles basin, developers of these sites should enter into grading monitoring agreements with the appropriate Native American tribal representatives. Development of these sites would also have to comply with the requirements of Section 7050.5 of the California Health and Safety Code (CHSC) regarding human remains if found during grading.

#### General Plan Update

The Land Use Element of the proposed GPTZCU does contain Goal LU-12 which emphasizes protecting and preserving the City's cultural heritage. Its supporting Policy LU-12.3 will assure that future development addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process when appropriate.

Compliance with existing state regulations (CHSC Section 7050.5 and PRC 5097) with respect to disturbing human remains, including those interred outside of a formal cemetery, would result in less than significant impacts from development under the GPTZCU, including development of the four opportunity sites.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Cumulative Impacts**

***Impact CUL-4 - Would the GPTZCU cause substantial adverse cumulative impacts with respect to cultural resources?***

### Analysis of Impacts

The Planning Area and surrounding area have been occupied by Native Americans for thousands of years, and the region has been inhabited by European settlers since the 1800s. The City of Santa Fe Springs contains two historic buildings that are listed on State and National historic registers and contain numerous more historic period buildings and structures that have potential to be considered eligible for inclusion on a historic register and thus potential to be a historic resource under CEQA.

Additionally, there is a potential for archaeological resources to exist within the Planning Area, particularly in the few remaining undeveloped areas of the City, or where existing foundations are shallow, and where archaeological resources, including human remains, could remain below the prior level of disturbance.

On a cumulative level, impacts to cultural resources from both the City and the surrounding jurisdictions (i.e. the cities of Norwalk, Downey, Pico Rivera, Whittier, La Miranda, and Cerritos and nearby LA County unincorporated areas) should be considered. These jurisdictions contain numerous cultural resources which, as with all cultural resources, are non-renewable. Damaging, disturbing, or destroying cultural resources results in a permanent loss of resources that can never be replaced, and future projects with impacts to cultural resources from all surrounding jurisdictions contribute to the cumulative impact to cultural resources.

The Conservation Element of the current General Plan contains Goal 3 which aims to ensure that historically significant buildings and properties are identified and preserved to the greatest extent possible.

The Land Use Element of the proposed GPTZCU contains Goal LU-12 and its policies which will identify, preserve, and protect the City's cultural resources and ensure that potential resources are analyzed and protected.

Consistent with federal and state laws, the General Plans of the surrounding jurisdictions have similar goals and policies to protect cultural resources within their boundaries as well. Finally, state law requires the City and surrounding jurisdictions to notify Native American representatives if tribal human remains are found.

By adopting the General Plan Update goals and policies, following required laws and regulations, and continuation of the City's required CEQA review of all development projects created by the GPTZCU, the potential cumulative impacts to cultural resources will be minimized, and future development in the City of Santa Fe Springs under the GPTZCU will not make a significant contribution to any cumulative regional impacts on cultural resources.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **4.5.5 – REFERENCES**

California Health and Safety Code, Section 7050.5.

California Public Resources Code Section 5097.

California State Parks, 2021. *California Register of Historical Resources*.  
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## 4.6 – Energy

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This section addresses energy impacts associated with implementation of the General Plan and Targeted Zoning Code Update (GPTZCU). Energy resources are closely tied to impacts discussed in the Air Quality and Greenhouse Gas (GHG) sections of this document, Sections 4.3 and 4.8, respectively. Many of the values presented herein reflect values derived from the air quality emissions modeling conducted for the Project. Refer to Appendix D for detailed air quality and GHG emissions estimates and information on energy usage (MIG, 2021).

### 4.6.1 – ENVIRONMENTAL SETTING

Energy is primarily categorized into three areas: electricity, natural gas, and fuels used for transportation. According to the U.S. Energy Information Administration (USEIA), California is the most populous state in the U.S., representing 12 percent of the total national population, has the largest economy, and is second only to Texas in total energy consumption. However, California has one of the lowest per capita energy consumption levels in the U.S. This is a result of California's mild climate, extensive efforts to increase energy efficiency, and implementation of alternative technologies. California leads the nation in electricity generation from solar, geothermal, and biomass resources (USEIA, 2021a).

#### Electricity

In 2019, the California electric system generated 277,704 gigawatt-hours (GWh) of electricity. Approximately 72% of this generation occurred in-state (200,475 GWh), while approximately 28% was imported to the California system but generated outside the state (77,229 GWh). Non-carbon dioxide emitting electric generation sources (nuclear, large hydroelectric, and renewables like solar and wind) produced 57% of the total system electricity generation in 2018 (CEC, 2021). In 2019, Los Angeles County consumed approximately 66,119 GWh of electricity, about 24% of the state's total electricity generated that year (CEC, 2021a).

Southern California Edison (SCE) is the utility provider in Santa Fe Springs. In the 2020 fiscal year, SCE sold approximately 85,399 GWh of electricity (SCE, 2020a); approximately 43% of the electricity that SCE delivered to customers came from carbon-free resources, including solar energy (approximately 15%), wind energy (approximately 9%), and geothermal energy (approximately 6%) (SCE, 2021).

Based on the CalEEMod emissions estimates prepared for the GPTZCU (see Section 4.3.1 and Appendix D), the existing development in the Planning Area is estimated to consume approximately 1,118 GWh of electricity per year. Based on a service population (SP) of 102,988, the City's energy consumption in 2020 was an estimated 10,858 kilowatt-hours (KWh) per year per service population (KWh/yr/SP).

#### Natural Gas

California accounts for less than one percent of total U.S. natural gas reserves and production; however, almost two-thirds of California households use natural gas for home heating (USEIA



2021a). In 2019, California consumed about 13,158 million therms of natural gas.<sup>1</sup> Los Angeles County consumed approximately 3,048 million therms of natural gas in the same year, accounting for approximately 23% of statewide consumption (CEC, 2021).

The Southern California Gas Company (SoCalGas) provides natural gas service within the Planning Area. SoCalGas is the principal distributor of natural gas in Southern California and provides natural gas for residential, commercial, and industrial markets. The annual natural gas sale to all markets in 2019 was approximately 7,498 million therms (CEC, 2021).

Based on the CalEEMod emissions estimates prepared for the GPTZCU (see Section 4.3.1 and Appendix D), existing development in the Planning Area is estimated to consume approximately 11.5 million therms per year (or approximately 1,151,802 MMBTUs). Based on a service population of 102,988 this works out to approximately 112 therms/yr/SP (or approximately 11 MMBTUs/yr/SP).

### Transportation

California's transportation sector consumed approximately 80.3 MMBTUs of energy per capita in 2018, which ranked 30th in the nation (USEIA, 2021b). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by CARB.

According to the Board of Equalization, statewide taxable sales figures indicate a total of 15.37 billion gallons of gasoline and 3.09 billion gallons of diesel fuel were sold in 2019 (CEC, 2021). Although exact estimates are not available by County, retail fuel outlet survey data indicates Los Angeles County accounted for approximately 23% and 16% of total statewide gasoline and diesel sales, respectively, in 2019 (CEC, 2020).

Based on the daily vehicle miles traveled (VMT) estimates contained in the Transportation Report prepared for the GPTZCU (see Appendix F) and emissions modeling prepared for the proposed Project (see Section 4.3 and 4.8), the existing land uses in the Planning Area are estimated to generate approximately 1,179,620,586 VMT per year.

## 4.6.2 – REGULATORY FRAMEWORK

### Federal

**Federal Energy Policy and Conservation Act.** In 1975, Congress enacted the Federal Energy and Policy Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

**Energy Independence and Security Act of 2007.** On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles, the act also includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)

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<sup>1</sup> One therm is equal to approximately 100,000 British thermal units (BTUs) or 0.1 million BTUs (MMBTU).

- Appliance and lighting efficiency standards
- Building energy efficiency

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum. The United States Environmental Protection Agency (U.S. EPA) is responsible for developing and implementing regulations to ensure transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel and set separate volume requirements for each one; and
- EISA required the U.S. EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHG than the petroleum fuel it replaces (U.S. EPA 2015).

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

**Federal Vehicle Standards.** In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016. In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams per mile of carbon dioxide (CO<sub>2</sub>) in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level was achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and

vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (U.S. EPA and NHTSA, 2016).

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). This rule would modify the existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards covering model years 2021–2026. SAFE standards are expected to uphold model year 2020 standards through 2026 (NHTSA 2018).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to increase in stringency at approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related “augural” fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) CO<sub>2</sub> emissions (CARB, 2020) and has been challenged by 23 states. The litigation is ongoing.

### State

**Title 24 Energy Standards.** The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in California. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standards. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CalGreen Code). The purpose of the CalGreen Code is to “improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CalGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CalGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to, exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to nonresidential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, went into effect on January 1, 2020, to improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements; and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 Building Energy Efficiency Standards are approximately 53 percent more efficient than the 2016 Title 24 Energy Standards for residential development and approximately 30 percent more efficient for non-residential development. The 2022 Building Energy Efficiency Standards were adopted by the CEC in August 2021, and will go into effect January 2023 if they are approved by the California Building Standards Commission. The update expands solar photovoltaic systems standards and introduces battery storage standards for new construction. It also encourages electric heat pump technology and establishes electric-ready requirements for newly constructed residential and commercial buildings.

**Executive Order B-30-15, Senate Bill 32, and Assembly Bill 197 (Statewide Interim GHG Targets).** California EO B-30-15 (April 29, 2015) set an “interim” statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons.

To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase the amount of renewable electricity provided state-wide to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

#### **Senate Bill 375 (Sustainable Communities and Climate Protection Act).**

In January 2009, California SB 375, known as the Sustainable Communities and Climate Protection Act, went into effect. The objective of SB 375 is to better integrate regional planning

of transportation, land use, and housing to reduce sprawl and ultimately reduce GHG emissions and other air pollutants. SB 375 tasks the California Air Resources Board (CARB) to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs. The proposed reduction targets for the Southern California Association of Governments (SCAG) region were 8% by year 2020 and 13% by year 2035. These percent reductions are specifically attributable to reductions in per capita passenger vehicle greenhouse gas (GHG) emissions relative to per capita passenger vehicles GHG emissions in 2005. In September 2010 and February 2011, the 8% and the 13% targets were adopted, respectively.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future*. The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with SB 375. The document contained a host of improvements to the region's multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrated the region's ability to attain and exceed the GHG emission-reduction targets set forth by the CARB, and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG's Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS's goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an 8% reduction in per capita passenger vehicle GHG emissions by 2020, an 18% reduction by 2035, and a 21% reduction by 2040 when compared with 2005 levels. These reductions meet or exceed the State's mandate, which require an 8% reduction by 2020 and 13% by 2035.

In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018). The new SCAG targets are an 8% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035. On May 7, 2020, SCAG adopted "Connect SoCal", the 2020-2045 RTP/SCS, for federal transportation conformity purposes only. On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal, and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is designed to meet the regional GHG reduction targets for SCAG that were identified by CARB in 2018 (i.e., an 18% reduction in per capita passenger vehicle emissions by 2035).

Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal contains 10 primary goals, as detailed below:

1. Encourage regional economic prosperity and global competitiveness.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.
3. Enhance the preservation, security, and resilience of the regional transportation system.
4. Increase person and goods movement and travel choices within the transportation system.
5. Reduce greenhouse gas emissions and improve air quality.
6. Support healthy and equitable communities.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.
10. Promote conservation of natural and agricultural lands and restoration of habitats.

Connect SoCal's "Core Vision" centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investment in transit and complete streets. The Core Vision includes: Sustainable Development, System Preservation and Resilience, Demand and System Management, Transit Backbone, Complete Streets, and Goods Movement.

From 2016 to 2045, Connect SoCal anticipates approximately 64 percent of households and 74 percent of new jobs will occur in Priority Growth Areas (PGAs). Connect SoCal's PGAs – Job Centers, Transit Priority Areas (TPAs), High Quality Transit Areas (HQTAs),<sup>2</sup> Neighborhood Mobility Areas (NMAs), Livable Corridors, and Spheres of Influences (SOIs) – account for only 4 percent of the region's total land areas, but will accommodate the aforementioned growth statistics. There is one TPA / HQTA within the Planning Area – it is located near where the BNSF railway intersects with Imperial Highway (SCAG, 2020).

**Renewables Portfolio Standard Program.** In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. The *2003 Integrated Energy Policy Report* recommended accelerating that goal to 20 percent by 2010, and the *2004 Energy Report Update* further recommended increasing the target to 33 percent by 2020. The

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<sup>2</sup> HQTAs are corridor-focused PGAs within half-a-mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick passengers up at a frequency of every 15 minutes (or less) during peak commuting hours.

state's *Energy Action Plan* also supported this goal. In 2006 under Senate Bill 107, California's 20 percent by 2010 RPS goal was codified. The legislation required retail sellers of electricity to increase renewable energy purchases by at least one percent each year with a target of 20 percent renewables by 2010. Publicly owned utilities set their own RPS goals, recognizing the intent of the legislature to attain the 20 percent by 2010 target.

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08 requiring "[a]ll retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The following year, Executive Order S-21-09 directed CARB, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020.

In October 2015, Governor Brown signed SB 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly owned utilities to procure "half of the state's electricity from renewable sources by 2030."

The State's RPS program was further strengthened by the passage of SB 100 in 2018. SB 100 revised the State's RPS Program to require retail sellers of electricity to serve 50% and 60% of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2026 and 2030, respectively, and requires 100% of all electricity supplied come from renewable sources by 2045.

**Executive Order B-55-18.** On September 10, 2018, Governor Brown signed Executive Order B-55-18, to achieve carbon neutrality by moving California to 100% clean energy by 2045. This Executive Order also includes specific measures to reduce GHG emissions via clean transportation, energy-efficient buildings, directing cap-and-trade funds to disadvantaged communities, and better management of the state's forest land.

**Low Carbon Fuel Standard Regulation.** CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in the *2008 Scoping Plan* to reduce California's GHG emissions. The LCFS regulation defines a Carbon Intensity, or "CI," reduction target (or standard) for each year. The initial LCFS regulation required a reduction of at least 10 percent in the CI of California's transportation fuels by 2020. In 2018, CARB approved amendments to the LCFS regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030, adding new crediting opportunities to promote ZEV adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. Under the 2018 amendments, the LCFS regulation now requires a reduction of at least 20 percent in CI by 2030 and beyond.

**Assembly Bill 1493, Advanced Clean Cars Program, EO B-48-18, and EO N-79-20.** With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and proactive approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California's related request for a waiver, a waiver was granted. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles.

In January 2012, CARB approved the Advanced Clean Cars (ACC) Program (formerly known as Pavley II) for model years 2017-2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The Program combines the control of smog, soot, and global warming gases with requirements for greater numbers of zero-

emission vehicles into a single package of standards. By 2025, new automobiles under California's ACC Program will emit 34 percent less global warming gases and 75 percent less smog-forming emissions.

Executive Order B-48-18, issued by Governor Brown in January 2018, establishes a target to have five million ZEVs on the road in California by 2030. This Executive Order is supported by the State's 2018 ZEV Action Plan Priorities Update, which expands upon the State's 2016 ZEV Action Plan. While the 2016 plan remains in effect, the 2018 update functions as an addendum, highlighting the most important actions State agencies are taking in 2018 to implement the directives of Executive Order B-48-18.

EO N-79-20, issued by Governor Newsom in September 2020, set a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. It also set a goal that 100 percent of medium- and heavy-duty vehicles in the state be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. In addition, this EO set a goal to transition to 100 percent zero-emission off-road vehicles and equipment in the state by 2035 where feasible.

## Local

**General Plan. City General Plan.** The City's proposed GPTZCU contains the following goals and policies related to energy and energy consumption:

- **Goal LU-3: Clean Industrial Businesses**
  - **Policy LU-3.8: Green Industrial Operations.** Encourage industrial businesses to utilize green building strategies, green vehicle fleets, energy-efficient equipment, and support renewable energy systems.
- **Goal LU-8: Vibrant Mixed-use, Pedestrian-friendly Districts Around Transit Stations**
  - **Policy LU-8.1: Transit-Oriented Development.** Promote development of high-density residential uses, mixed-use, and commercial services within walking distance of commuter rail transit stations.
  - **Policy LU-8.4: Improved Infrastructure.** Improve street infrastructure around transit stations to accommodate pedestrians and bicyclists.
- **Goal LU-10: Equitable Access to and Distribution of Public Facilities**
  - **Policy LU-10.6: Public Facilities Modernization.** Review and evaluate all public facilities to ensure structures are improved to be more sustainable, utilize digital tools, improve user-centric design, and favor technological solutions and platforms, as feasible.
  - **Policy LU-10.8: Sustainability Improvements.** Improve energy and water efficiency at all public facilities, structures, and parks, using data to benchmark progress, and utilize analytics to identify best practices.
- **Goal EJ-1: Reduced Exposure to Air Pollution and Hazardous Materials**
  - **Policy EJ-1.2: Truck Idling Restrictions.** Designate acceptable and unacceptable areas for freight trucking and diesel truck idling to limit impacts on disadvantaged communities already overburdened by air pollution.



- **Goal EJ-2: Accessible Open Spaces and Increased Levels of Physical Activities**
  - **Policy EJ-2.2: Walking and Biking.** Promote walking, biking, and other modes of active transportation as easy, healthy, and fun ways to complete local errands and short trips.
- **Goal EJ-3: Meeting Disadvantaged Communities' Needs**
  - **Policy EJ-3.3: Bicycle and Pedestrian Safety.** Prioritize pedestrian and bicycle safety improvements in disadvantaged communities.
  - **Policy EJ-3.5: Weatherization Programs.** Assist residents in disadvantaged communities to retrofit their homes to be more energy-efficient, weatherproof, and better protected from air and noise pollution.
- **Goal C-1: A Multi-Modal Mobility Network that Efficiently Moves and Connects People, Destinations, Vehicles, and Goods**
  - **Policy C-1.1: Multi-Modal.** Use a multimodal approach when pursuing street and other transportation network improvements, including accommodating pedestrians, cyclists, transit riders, and motor vehicles, and that accounts for land use and urban form factors that affect accessibility.
  - **Policy C-1.2: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.
  - **Policy C-1.5: Transportation Priority.** Prioritize transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities.
- **Goal C-2: Streets Designed and Managed to Ease Access for All Users**
  - **Policy C-2.9: Sidewalk Maintenance and Upkeep.** Ensure established sidewalks and related physical improvements are preserved and maintained to provide a comfortable, safe, and desirable experience.
- **Goal C-3: Active Transportation Network: Connected Street Network for Pedestrians and Cyclists**
  - **Policy C-3.1: Promote Walking.** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.
  - **Policy C-3.2: Pedestrian Design.** Design and operate sidewalks, streets and intersections to maximize pedestrian safety and comfort through a variety of street design and traffic management solutions.
  - **Policy C-3.4: Connectivity.** Require that new developments increase connectivity through convenient pedestrian and bicycling connections to the established and planned network.
  - **Policy C-3.5: Innovative Bicycle and Pedestrian Connections.** Investigate the use of easements and/or rights-of-way along flood control channels, public utilities, railroads, and streets by cyclists and pedestrians.
  - **Policy C-3.6: Active Transportation Facilities.** Promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles.

- **Policy C-3.7 Bicycle Facilities.** Plan for new shared-use paths, bicycle lanes, buffered bicycle lanes, bicycle routes, and bicycle boulevards that establish a comprehensive bicycle network citywide.
- **Policy C-3.8: Bicycle Parking.** Establish standards for bicycling parking that include racks and locks and integrate bike parking facilities within all community facilities and activity areas, and consider parking reductions for commercial developments that provide bicycling parking.
- **Policy C-3.11: Sidewalks Gaps.** Prioritize adding new sidewalks to streets either lacking sidewalks on both sides of the street or on one side of the street, with added priority in disadvantaged communities.
- **Policy C-3.12: Sidewalks Widening.** Evaluate widening sidewalks away from the curb to accommodate pedestrians along major transit routes and around planned and established transit stations.
- **Policy C-3.14: Neighborhood Streets.** Design or retrofit streets to improve walkability, strengthen connectivity, and enhance community identity; emphasize the provision of high-quality pedestrian and bikeway connections to transit stops/stations, commercial centers, and local schools; and design new streets and consider traffic calming where necessary, to reduce neighborhood speeding.
- **Goal C-4: A Comprehensive Transit System that Provides Convenient and Reliable Transit Access to Residential Neighborhoods and Activity Destinations**
  - **Policy C-4.1: Transit Stops and Stations.** Develop approaches and coordinate with other agencies to create comfortable, functional, informational, and safe transit shelters for bus stops and rail stations.
  - **Policy C-4.2: Transit Rider Needs.** Consult with all transit agencies operating in the City to ensure bus services and facilities meet the needs of residents and the business community, specifically targeting specific populations such as residents in high transit ridership areas, senior populations, school-age children, and residents living in disadvantaged communities.
  - **Policy C-4.3: First/Last Mile.** Encourage first/last mile infrastructure improvements, mobility services, transit facilities and amenities, and signage/wayfinding solutions to all bus stops and transit stations.
  - **Policy C-4.4: Transit Improvement Priority.** Prioritize transit and bus connectivity and access improvements within disadvantaged communities.
  - **Policy C-4.5: Improve Transit Access.** Improve multi-modal access to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station, including bicycle, micro-mobility, and pedestrian connections and improvements.
  - **Policy C-4.6: Metro L Line Expansion.** Consult with Metro during the planning and construction phases of Metro' L line and station along Washington Boulevard to ensure improvements achieve the City's connectivity and land use objectives.
  - **Policy C-4.7: Metro C Line Expansion:** Consult with regional partners and Metro to encourage expansion of the Metro C Line from its terminus in Norwalk to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station.
  - **Policy C-4.8: Light Rail Stations:** Consult with Metro to establish appropriate light rail stations that consider local context and provide opportunities for

attractive design, placemaking, and integrating public art and amenities that reflect the City of Santa Fe Springs' community and culture.

- **Policy C-4.8: Transit:** Require new development to post current transit and bus schedules and operating system information within communal gathering areas to encourage greater participation in public transportation.
- **Goal C-6: Street Designs that Accommodate Transportation Modes and Users of All Abilities**
  - **Policy C-6.1: Pedestrian Projects.** Incorporate new crossing treatments, curb treatments, signals and beacons, traffic-calming measures, and transit stop amenities identified in the Active Transportation Plan.
  - **Policy C-6.7: Green Streets:** Integrate a green street approach into street improvements to address/include stormwater management, permeable surfaces, urban greenery, and sustainable landscaping improvements.
- **Goal C-8: A Transportation System Designed to Reduce Vehicle Miles Traveled**
  - **Policy C-8.1: Reducing Vehicle Miles Traveled:** Integrate transportation and land use decisions to reduce vehicle miles traveled and greenhouse gas emissions.
  - **Policy C-8.2: Transportation Management Strategies:** Evaluate the potential of transportation demand management strategies and intelligent transportation system applications to reduce vehicle miles traveled.
  - **Policy C-8.3: Employee Incentives:** Encourage businesses to provide employee incentives to utilize alternatives to conventional automobile travel (i.e., carpools, vanpools, buses, cycling, and walking).
  - **Policy C-8.4: Air Quality:** Encourage the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's Regulations.
  - **Policy C-8.5: Employee Work Hours Variability:** Encourage businesses to use flextime, staggered working hours, telecommuting, and other means to lessen peak commuter traffic.
  - **Policy C-8.6: Ridesharing:** Promote ridesharing through publicity and provision of information to the public through web-based apps and other approaches through collaboration with other agencies and jurisdictions.
  - **Policy C-8.7: Caltrans Consultation:** Consult with Caltrans regarding freeway improvements that can affect City roadways and businesses.
- **Goal C-12: A Sustainable and Reliable Water Supply**
  - **Policy C-12.2: Water Conservation.** Enforce conservation measures that eliminate or penalize wasteful uses of water as a response to drought, climate change, and other threats to adequate water supply.
  - **Policy C-12.3: Reclaimed Water.** Continue the development of the reclaimed water system to serve landscaped areas and industrial uses when financially feasible.
  - **Policy C-12.9: Water Conservation.** Promote cost-effective conservation strategies and programs that increase water use efficiency.

- **Goal S-5: A Resilient Community Well Prepared to Respond and Adapt to Climate Change**
  - **Policy S-5.4: Resilient Building Approaches.** Support building and site improvements that reduce energy and water use and urban heat island effects.
  - **Policy S-5.7: Passive Solar Design.** Encourage passive solar design for new development and community facilities, including cool roofs, architectural features that cool interiors, shade shelter areas, shaded playgrounds, and bus shelters canopies.
  - **Policy S-5.8: Urban Heat Island Countermeasures.** Integrate solutions to address urban heat island effect, particularly in disadvantaged communities, by utilizing green infrastructure, shading building surfaces, expanding tree canopies over parking lots and expansive pavements, and expanding the urban forest.
- **Goal COS-5: An Expansive Urban Forest and Related Benefits**
  - **Policy COS-5.4: Green Buffers.** Expand trees and landscaping to build an extensive green buffer between residential neighborhoods and freeways, rail corridors, and industrial districts to help reduce air pollution impacts. Prioritize residential neighborhoods that are designated as disadvantaged communities.
  - **Policy COS-5.5: Environmental Benefits.** Expand urban greening to reduce air and noise pollution, reduce and clean urban runoff, increase groundwater recharge, improve ecological diversity, and help cool neighborhoods by minimizing heat island effects.
- **Goal COS-8: Energy Efficient Operations and Structures**
  - **Policy COS-8.1: Efficiency of Existing Buildings:** Improve energy efficiency of existing and new buildings, such as adding energy-efficient appliances and fixtures, improvements to windows, reflective shingles, roof, and wall insulations, and other green building strategies.
  - **Policy COS-8.2: Efficiency City Operations.** Improve energy efficiency of municipal operations, public Infrastructure, and City facilities and structures.
  - **Policy COS-8.3: Energy Efficient Strategies.** Encourage energy-efficient strategies of all new projects (public and private), including appropriate structure orientation and site design, passive solar approaches, the use of shade trees to maximize cooling, and reduce fossil fuel consumption for heating and cooling.
  - **Policy COS-8.4: Renewable Energy Industrial Facilities.** Promote the use of renewable energy and/or solar energy for large industrial operations on building rooftop or on large properties and support solar-ready buildings for large industrial buildings and warehouses.
  - **Policy COS-8.5: Zero Net Energy.** Pursue Zero Net Energy standards for new public facilities, ensuring new buildings produce as much clean renewable energy as it consumes over the course of a year.

- **Goal COS-9: Air Quality Conditions that Improve Over Time**

- **Policy COS-9.1: Land use and Transportation.** Allow urban and transit-oriented communities within walking distance of transit stops and stations to reduce vehicle trips and trip lengths.
- **Policy COS-9.2: Evaluate Trucking Emissions.** Support low emission solutions and use of alternative fuels to improve trucking fleet fuel efficiency.
- **Policy COS-9.6: Alternative Fuels.** Prioritize alternative fuel vehicles for City use, and encourage new residential, commercial, and industrial development be equipped with vehicle electric charging stations.
- **Policy COS-9.7: Coordination.** Provide updated data to the Southern California Association of Governments to assist in updates to the Sustainable Communities Strategies and Regional Transportation Plan.

#### **4.6.3 – SIGNIFICANCE THRESHOLDS**

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the GPTZCU could result in a significant impact related to energy if it would:

- A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;
- C. Cause substantial adverse cumulative impacts with respect to energy.

#### **4.6.4 – IMPACTS AND MITIGATION MEASURES**

This section describes potential impacts related to energy resources.

##### **Energy Consumption**

***Impact ENG-1 – Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during GPTZCU construction or operation?***

##### Analysis of Impacts

##### City-wide

Implementation of the proposed GPTZCU would increase the demand for electricity and natural gas within the Planning Area and gasoline consumption in the region during construction and operation of new land use developments.

##### **Electricity**

**Construction Use.** Temporary electric power would be required at various construction sites throughout the city as growth occurs under GPTZCU. Electricity would be consumed by lighting

and electronic equipment (e.g., computers) located in trailers used by construction crews, and by small, off-road equipment (e.g., compressors) used during development activities. However, the electricity used for such activities would be temporary and would have a negligible contribution to the overall energy consumption in the city.

**Operational Use.** Development facilitated under the GPTZCA would require electricity for multiple uses, including, but not limited to: building heating and cooling, lighting, appliance use (e.g., washer, dryer, microwave, etc.), and other electronics (e.g., televisions).

As described in Section 4.6.1, CalEEMod was used to estimate GPTZCA emissions from energy uses. Electricity generation was estimated in CalEEMod by adjusting the CalEEMod default values to reflect compliance with the 2013 Title 24 Building Code efficiencies for 2020 and a blend of 2013, 2016, and 2019 Title 24 Building Code efficiency standards for GPTZCA growth in 2040. Table 4.6-1 summarizes changes in electricity consumption that would occur over the next approximately 20 years of growth envisioned by the GPTZCU.

**Table 4.6-1.  
Estimated Operational Change in Electricity Consumption (2020 vs. 2040)**

Metric	Electricity Consumption (MWh)		
	2020	2040	Change
Total Electricity Consumption	1,118,292	1,145,205	+26,913
Service Population (SP)	102,988	121,666	+18,678
Electricity Consumption Efficiency (MWh/yr/SP)	10.86	9.41	-1.45

Source: MIG, 2021 (see Appendix ).

As shown in Table 4.6-1, electricity consumption in the Planning Area in 2040 is expected to increase by approximately 26,913 MWh when compared to 2020 conditions; however, on an efficiency basis, electricity consumption would decrease by approximately 13% from 10.86 MWh/yr/SP to 9.41 MW/yr/SP. Although growth would be occurring within the Planning Area under the GPTZCU, new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated electricity consumption in new and/or retrofitted structures. For this reason, the electrical energy that would be consumed by the proposed GPTZCU is not considered unnecessary, inefficient, or wasteful.

### Natural Gas

**Construction Use.** Substantial natural gas consumption is not anticipated to occur during construction activities that could occur with GPTZCU implementation. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection. Potential natural gas use during construction activities associated with GPTZCU growth would not substantially contribute to overall energy consumption in the city, and would not be unnecessary, inefficient, or wasteful.

*Operational Use.* Natural gas consumption from development associated with the GPTZCU would be required for various purposes, such as space and water heating in buildings. CalEEMod was used to estimate natural gas consumption associated with GPTZCU implementation. Table 4-6.2 summarizes estimated changes in natural gas consumption over the next approximately 20 years of growth envisioned by the GPTZCU.

**Table 4.6-2.  
Estimated Operational Change in Natural Gas Consumption (2020 vs. 2040)**

Metric	Natural Gas Consumption (MMBtu)		
	2020	2040	Change
Total Natural Gas Consumption	1,151,802	1,188,412	+36,610
Service Population (SP)	102,988	121,666	+18,678
Natural Gas Consumption Efficiency (MMBtu/yr/SP)	11.18	9.77	-1.42
Source: MIG, 2021 (See Appendix D)			

Based on the demand calculations shown in Table 4.6-2, natural gas consumption in the Planning Area in 2040 is expected to increase by approximately 36,610 MMBtu as compared to 2020 conditions. On an efficiency basis, however, natural gas consumption is estimated to decrease by approximately 12.7% from 11.18 MMBTU/yr/SP to 9.77 MMBTU/yr/SP percent.

Although growth would occur within the Planning Area over the next approximately 20 years, new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease the rate at which natural gas consumption would occur in new and/or retrofitted structures (compared to older buildings that were built to prior building code standards that are less energy efficient). For these reasons, natural gas consumption by proposed land uses in the GPTZCU is not considered to be unnecessary, inefficient, or wasteful.

### **Diesel and Gasoline Fuel**

*Construction Use.* Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed during construction activities as the city grows under the GPTZCU. Fuel use by construction equipment would be the primary energy resource consumed during development activities, and VMT associated with the transportation of construction materials (e.g., deliveries) and worker trips would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles to travel to and from construction sites. State regulations such as LCFS would reduce the carbon intensity of transportation-related fuels, and all construction projects would be required to comply with CARB's Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary at each location and required to conduct development activities, it would not be unnecessary, wasteful, or inefficient.

*Operational Use.* Vehicle fuel consumption associated with GPTZCA implementation would occur over the next approximately 20 years and would primarily be attributable to people traveling to or from the city for work, shopping, school, or other reasons. The amount of diesel and gasoline vehicle fuel consumption in the city under existing 2020 and forecasted 2040 growth conditions are shown in Table 4.6-3.

**Table 4.6-3.  
Estimated Vehicle Fuel Consumption Changes (2020 vs. 2040)**

Metric	Vehicle Fuel Consumption (Gallons)		
	2020	2040	Change
Total Diesel Consumption	7,779,899	6,481,382	-1,298,517
Total Gasoline Consumption	49,391,909	40,495,173	-8,896,736
Total Petroleum Consumption	57,171,809	46,976,555	-10,195,253
Service Population	102,988	121,666	18,678
Petroleum Consumption Efficiency (gal/yr/SP)	555	386	-169

Source: MIG, 2021 (See Appendix D)

As shown in Table 4.6-3, diesel and gasoline fuel consumption in 2040 with the GPTZCA is anticipated to be approximately 6,481,382 and 40,495,173 gallons, respectively. Compared to 2020, this represents approximately 1,298,517 fewer gallons of diesel fuel consumed annually, and approximately 8,896,736 fewer gallons of gasoline fuel consumed annually.<sup>3</sup> On a service population basis, overall petroleum consumption is expected to decrease by approximately 30%, from 555 gallons of fuel/yr/SP in 2020 to 386 gallons of fuel/yr/SP in 2040. Although VMT is anticipated to increase slightly over the next approximately 20 years, VMT per capita is estimated to decrease during the same time period and fuel consumption would generally decrease as vehicle fuel efficiency increases to meet state GHG reduction goals.<sup>4</sup>

There are numerous regulations in place that require and encourage fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and ZEVs in California. In addition, per the requirements identified in SB 375, CARB adopted a regional goal for the SCAG or reducing per-capita GHG emissions from 2005 levels by 8% by 2020 and 19% by 2035 for light-duty passenger vehicles. As such, actual fuel consumption in the City of Santa Fe Springs could be lower in 2040 than estimated in Table 4.6-3.

<sup>3</sup> These estimates are based on average fuel economy in Los Angeles County during the 2040 calendar year.

<sup>4</sup> EIR fuel consumption estimates do not take into account EO N-79-20, issued by Governor Newsom in September 2020, which set a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035.



Vehicle fuel use in the Planning Area is generally anticipated to decrease over the next approximately 20 years due to land use decisions made by the City, and because of fuel efficiency standards enacted at the state-level. In addition, vehicle fuel consumption in the city would be a small fraction of statewide use. As such, petroleum consumption associated with implementation of the GPTZCU would not be considered unnecessary, inefficient, or wasteful.

As described above, the consumption of electricity, natural gas, and vehicle fuel resources would be necessary to accommodate the planned level of growth envisioned by the GPTZCU. The GPTZCU supports redevelopment of existing land uses with newer, more efficient development that would reduce energy consumption compared to existing conditions. In addition, the GPTZCU supports higher density, mixed-use development that reduces VMT and fuel consumption as compared to other types of development. As shown above, the use of energy resources in the Planning Area would become substantially more efficient over time with the change in land uses envisioned by the GPTZCU and the application of more stringent regulations that reduce energy usage. For these reasons, the GPTZCU would not result in the unnecessary, inefficient, or wasteful use of energy resources. This impact would be less than significant.

#### Key Opportunity Sites

As discussed under the city-wide analysis, energy would be consumed in a variety of forms during future construction and operational activities within the Planning Area. Future development activities at the four, Key Opportunity Sites would also require energy consumption. Gasoline and diesel fuel would be consumed during construction activities by heavy-duty off-road equipment and worker, vendor, and haul truck trips. Operation of the land uses would also consume energy in the form of electricity for building lighting, appliances, etc., and natural gas for water and space heating. Because the new land uses would be constructed to the latest CalGreen Code standards, they would be more energy-efficient than the land use that currently exists during the present day (except at the MC&C site, which is currently undeveloped). In addition to being more energy efficient due to updates to CalGreen Code standards, the land uses proposed at the Key Opportunity Sites are also more intensive and would serve a greater number of people. Therefore, the energy consumption associated with land uses at the Key Opportunity sites would not be unnecessary, inefficient, or wasteful. This impact would be less than significant.

#### Level of Significance Before Mitigation

##### City-wide

Less than significant.

##### Key Opportunity Sites

Less than significant.

#### Mitigation Measures

##### City-wide

None required.

Key Opportunity Sites

None required.

**Renewable Energy*****Impact ENG-2 – Would the GPTZCU conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***Analysis of ImpactsCity-wide

The GPTZCU would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing renewable energy or energy efficiency. The Title 24 Building Code contains energy efficiency standards for residential and non-residential buildings. These standards address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelope (e.g., windows, doors, walls, and roofs, etc.) on energy consumption. The latest update to these standards, codified in the 2019 Title 24 Building Code, requires the installation of solar panels on new residential development under three stories. The City would enforce the 2019 Title 24 Building Code during design review and project approval processes. Other state plans, such as increasing the RPS portfolio, and increasing fuel efficiency and the number of electric vehicles on the road, would be implemented at the state level. The GPTZCU would not impede the implementation of any of these actions.

Since the GPTZCU would comply with applicable State standards and not impede any plan related to increasing renewable energy or energy efficiency, this impact would be less than significant.

Key Opportunity Sites

Similar to the city-wide analysis above, new development within the four Key Opportunity Sites would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing renewable energy or energy efficiency. New structures or major remodels would be subject to the latest Title 24 Building Code standards (currently the 2019 Title 24 Building Code). Future projects at the Key Opportunity Sites would not conflict with the implementation of the Title 24 Building Code, nor would they conflict with or obstruct other actions taken at the state and local level. This impact would be less than significant.

Level of Significance Before MitigationCity-wide

Less than significant.

Key Opportunity Sites

Less than significant.

Mitigation Measures

None required.

### **Cumulative Impacts**

***Would the project cause substantial adverse cumulative impacts with respect to energy?***

#### Analysis of Impacts

##### City-wide

The analysis presented in Impact ENG-1 and ENG-2, as presented in Section 4.6.4, is cumulative in nature. As described in the analyses, the GPTZCU would not result in the unnecessary, inefficient, or wasteful use of energy resources nor would it conflict with or obstruct a state or local plan for increasing renewable energy or energy efficiency.

GPTZCA implementation would not result in a substantial adverse cumulative impact with respect to energy. This impact would be less than significant.

##### Key Opportunity Sites

The analysis presented in Impact ENG-1 and ENG-2, as presented in Section 4.6.4, is cumulative in nature. As described in the analyses, future development occurring at the Key Opportunity Sites would not result in the unnecessary, inefficient, or wasteful use of energy resources nor would it conflict with or obstruct a state or local plan for increasing renewable energy or energy efficiency.

Potential, future development activities at the Key Opportunity Sites would not result in a substantial adverse cumulative impact with respect to energy. This impact would be less than significant.

#### Level of Significance Before Mitigation

##### City-wide

Less than significant.

##### Key Opportunity Sites

Less than significant.

#### Mitigation Measures

None required.

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<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
AB	Assembly Bill
ACC	Advanced Clean Cars
Btu	British Thermal Unit
CalEEMod	California Emissions Estimator Model
Cal-EPA	California Environmental Protection Agency
CalGreen Code	California Green Building Standards Code
CARB	California Air Resources Board
CAFE	Corporate Average Fuel Economy
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CI	Carbon Intensity
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
EISA	Energy Independency and Security Act
EO	Executive Order
GHG	Greenhouse Gas
GPTZCU	General Plan and Targeted Zoning Code Update
GWh	Gigawatt-hours
IAQ	Indoor Air Quality
HQTA	High Quality Transit Area
KWh	Kilowatt-hours
LCFS	Low Carbon Fuel Standard
LEV	Low-Emissions Vehicle
MMBTUs	Million British Thermal Units
MPO	Metropolitan Planning Organization
NHTSA	National Highway Safety Administration
NMA	Neighborhood Mobility Area

PGA	Priority Growth Area
PV	Photovoltaic
RFS	Renewable Fuel Standards
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SoCalGas	Southern California Gas Company
SOI	Sphere of Influence
SP	Service Population
TIA	Traffic Impact Assessment
TPA	Transit Priority Area
U.S.	United States
USEIA	United State Energy Information Administration
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
Yr	Year
ZEV	Zero Emission Vehicle

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## 4.7 – Geology and Soils

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This EIR chapter addresses geology and soils impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU), including earthquake fault rupture, seismic hazards, liquefaction, landslides, soil erosion and unstable soils.

### 4.7.1 – ENVIRONMENTAL SETTING

Santa Fe Springs is subject to flooding, earthquakes, earthquake-induced hazards such as ground shaking and liquefaction, and pollution from hazardous materials. Hazard vulnerability assessment requires the analysis of many factors, including population and property distribution, event frequency, susceptibility, infrastructure, and disaster preparedness.

#### Seismic Hazards

The City of Santa Fe Springs has experienced earthquakes in the past, although none have caused enough damage to warrant a local disaster. The most notable earthquake affecting the City was the October 1, 1987 Whittier Narrows Earthquake (magnitude 5.9) and the October 4, 1987 aftershock (magnitude 5.5). The City had no fatalities and minimal structural damage.

#### Faults

Seismicity is a well-known hazard of Southern California. The region straddles the Earth's two largest tectonic plates: the northwest-moving Pacific plate and southwest-trending North American plate. Movement along this boundary has resulted in many earthquakes from the region's numerous faults.

The Norwalk fault, a concealed pre-Quaternary fault, runs parallel to the I-5 freeway along the southern portion of the City (Exhibit 4.7-1). Nearby significant fault lines include the Whittier fault (approximately three miles northeast), the Newport-Inglewood-Rose Canyon fault (approximately eight miles southwest), and the San Andreas fault (approximately 35 miles northeast). These faults have the capability of producing large earthquakes with magnitudes exceeding 7.0 that could substantially affect Santa Fe Springs (CGS, 2021).

Two active blind thrust faults—the Puente Hills and the Elysian Park thrust systems—cross diagonally through central Santa Fe Springs (Exhibit 4.7-1). Blind thrust faults are shallow-dipping reverse faults that do not rupture the surface and cannot be detected visually. The Elysian Park and Puente Hills faults could generate substantial ground shaking in an earthquake, causing damage to infrastructure, including roadways and bridges, dams, and essential facilities such as fire and police stations, emergency preparedness centers and industrial structures containing chemicals for manufacturing and storage.

#### Liquefaction

Liquefaction occurs when water-saturated sediment temporarily loses strength and acts as a fluid. Liquefaction-induced ground failure historically has been a major cause of earthquake damage in Southern California. Liquefaction potential and severity depends on several factors, including soil and slope conditions, proximity to fault, earthquake magnitude, and type of earthquake. In Santa Fe Springs, liquefaction hazards are present along the drainage channels on the periphery of the City, and residential and industrial areas in the north, residential neighborhoods west of Norwalk Boulevard, and the primarily industrial areas south of Imperial Highway (Exhibit 4.7-1).



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Although possible, liquefaction is unlikely to occur due to the water table depth of more than 50 feet throughout the City.

#### 4.7.2 – REGULATORY FRAMEWORK

##### Federal

**National Earthquake Hazards Reduction Program.** Established by Congress in 1977, the National Earthquake Hazards Reduction Program (NEHRP) leads the federal government's efforts to reduce the fatalities, injuries, and property losses caused by earthquakes. The four basic NEHRP goals are:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems.
- Improve earthquake hazards identification and risk assessment methods, and their use.
- Improve the understanding of earthquakes and their effects.

In its initial NEHRP authorization, and in subsequent reauthorizations, Congress has recognized that several key federal agencies can contribute to earthquake mitigation efforts.

**Federal Antiquities Act of 1906.** Protects paleontological resources on federal lands under Subsection 8.16.2.

##### State

**Alquist-Priolo Earthquake Fault Zoning Act.** The Alquist-Priolo Special Studies Zones Act was signed into law in 1972 (in 1994 it was renamed the Alquist-Priolo Earthquake Fault Zoning Act.) The primary purpose of the Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act requires the State active faults, and 200 to 300 feet from well-defined minor faults. The act dictates that cities and Geologist delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The boundary of an "Earthquake Fault Zone" is generally about 500 feet from major counties withhold development permits for sites within an Earthquake Fault Zone until geologic investigations demonstrate that the sites are not threatened by surface displacements from future faulting.

**Seismic Hazard Mapping Act.** The Alquist-Priolo Earthquake Fault Zoning Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. In 1990 the State passed the Seismic Hazards Mapping Act (SHMA), which addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The California Geological Survey (CGS) is the principal State agency charged with implementing the Act. Pursuant to the SHMA, the CGS is directed to provide local governments with seismic hazard zone maps that identify areas susceptible to liquefaction, earthquake-induced landslides and other ground failures. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards. The seismic hazard zones delineated by the CGS are referred to as "zones of required investigation." Site-specific geological hazard investigations are required by the SHMA when construction projects fall within these areas.

**Natural Hazards Disclosure Act.** The Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more State-mapped hazard areas.

**California Building Code.** The state regulations protecting structures from seismic hazards are contained in the California Code of Regulations, Title 24 (the California Building Code (CBC)), which is updated on a triennial basis. These regulations apply to public and private buildings in the State. Provisions of the CBC address (among other topics) fire safety, access for disabled persons, and seismic-resistant construction design.

**California Public Resources Code Chapter 1.7, Section 5097.5 (Stats. 1965, c. 1136, p. 2792).** Defines any unauthorized disturbance or removal of a fossil site or fossil remains on public land as a misdemeanor and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources under Subsection 8.16.2.2

### **Regional**

**South Coast Air Quality Management District Rules.** Rule 403 requires the implementation of best available dust control measures (BACM) during active operations capable of generating fugitive dust. Rule 403.1 is a supplemental rule to Rule 403 and is applicable to man-made sources of fugitive dust. The purpose of this rule is to reduce fugitive dust and resulting PM<sub>10</sub> emissions from man-made sources. Rule 403.1 requires a Fugitive Dust Control Plan approved by South Coast AQMD or an authorized local government agency prior to initiating any construction/earth-moving activity. These requirements are only applicable to construction projects with 5,000 or more square feet of surface area disturbance.

### **Local**

**Existing General Plan.** Government Code Section 65302.1 requires that a Safety Element be included in every General Plan which establishes policies and programs for the protection of the community from fires, flooding, geologic and other natural and human-caused hazards. The Safety Element of the Santa Fe Springs 1994 General Plan contains goals, objectives, and implementing policies designed to protect the community from risks associated with earthquakes, flooding, and other hazards. Applicable policies include:

- 2.5.1 Soils analysis and seismic review should be a part of the planning process for large development projects or where a "critical facility," as defined in Section XI of the Safety Element, is involved.
- 2.5.2 The City shall continue to adopt by reference the seismic standards of the Uniform Building Code, however, as new seismic safety technologies emerge the City should be proactive in amending its standards.

### **2021 General Plan Update**

The proposed GPTZCU includes the following goals and policies relative to geologic, seismic, and soil constraints within the Planning Area:

#### *Safety Element*

**Goal S-1: A community well prepared to respond to earthquakes.**

**Policy S-1.1: Earthquake Preparation.** Educate the community on actions to take before,

during, and after a major earthquake, including establishing family emergency disaster plans to prepare for and after an earthquake event.

**Policy S-1.2: Training.** Provide ongoing training to encourage preparedness and reduce the potential risk of loss of life, property damage, and social and housing disruption resulting from an earthquake.

**Policy S-1.3: Agency Consultation.** Consult on emergency preparedness with Federal, State, School Districts and other local agencies to prepare for response and recovery efforts in the event of an earthquake.

**Policy S-1.4: Minimize Property Damage.** Encourage property owners to undertake seismic retrofit of structures vulnerable to moderate to severe ground shaking caused by earthquakes.

**Policy S-1.5: Seismic Standards.** Ensure that all new development adheres to City and State seismic and geotechnical standards.

**Policy S-1.6: Earthquake Recovery Resiliency.** Identify a plan of action and consult with different responsible agencies to respond to and recover from a major earthquake.

**Policy S-1.7: Infrastructure Resiliency.** Establish City plans and work with utility providers to ensure programs and systems are in place for continued functionality of water, sewer, electric power, natural gas, and communications infrastructure during and after a major earthquake.

**Policy S-1.8: Geotechnical Hazard Mitigation.** Require that projects in areas susceptible to liquefaction and other geologic hazards demonstrate that all appropriate engineering and planning mitigations are implemented.

**Goal S-2. Protection from flood and dam inundation hazards.**

**Policy S-2.1: Storm Drainage System.** Consult with Los Angeles County Public Works to ensure that existing and future regional storm drain facilities within and adjacent to Santa Fe Springs are designed, operated, and maintained to accommodate projected drainage needs associated with major storm events and climate change effects.

**Policy S-2.2: Localized Ponding Mitigation.** Require developers to address localized ponding, where it may exist, as part of site improvements.

**Policy S-2.3: Dam Inundation.** Consult with appropriate agencies and monitor the upgrade/retrofit of the Whittier Narrows Dam to protect the community against catastrophic damage that could result from a combination of an extreme weather, seismic, and/or climate change event.

**Policy S-2.4: Shelters.** Seek ways to enhance the City's sheltering facilities outside of the potential dam inundation area, including places of worship, schools, and public buildings.

**Goal S-5: A resilient community well prepared to respond and adapt to climate change.**

**Policy S-5.1: Essential Public Facilities.** Evaluate the resiliency of essential public facilities to risks and hazards of earthquakes, flooding, fire, and other hazards, and address any deficiencies.

**Municipal Code.** The following sections of the Santa Fe Springs Municipal Code apply to Geology and Soils:

Section 154.16 includes requirements related to Soil Reports.

Section 154.17 requires that Grading and Erosion Control be implemented for development projects and includes specific requirements for industrial/commercial and construction activities that may impact geology and soils.

#### 4.7.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

- A. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:
  - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
  - ii) Strong seismic ground shaking.
  - iii) Seismic-related ground failure, including liquefaction.
  - iv) Landslides.
- B. Result in substantial soil erosion or the loss of topsoil.
- C. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- D. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property.
- E. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- G. Would the project cause substantial adverse cumulative impacts with respect to Geology and Soils.

#### 4.7.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to geology and soils which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

##### **Fault Rupture or Groundshaking Effects**

***Impact GEO-1 – Would the GPTZCU directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?***

## Analysis of Impacts

### City-wide

The Planning Area is in a seismically active area. The greater Los Angeles region straddles two tectonic plates, and many fault zones are in the area. However, no Alquist-Priolo Earthquake Fault Zones are mapped within the City so the potential for fault rupture within the City is low. Two active blind thrust faults—the Puente Hills and the Elysian Park thrust systems—cross diagonally through central Santa Fe Springs which could generate substantial ground shaking in a major earthquake. The Norwalk fault runs parallel to the I-5 freeway along the southern portion of the City, and nearby significant fault lines include the Whittier fault, the Newport-Inglewood-Rose Canyon fault, and the San Andreas fault. These faults have the capability of producing large earthquakes (greater than magnitude 7.0).

Liquefaction-induced ground failure has historically been a major cause of earthquake damage in Southern California. In Santa Fe Springs, liquefaction hazards are present along the drainage channels on the periphery of the City, and residential and industrial areas in the north, residential neighborhoods west of Norwalk Boulevard, and primarily industrial areas south of Imperial Highway. Although possible, liquefaction is unlikely to occur due to the water table depth of more than 50 feet throughout the City.

There are no landslide zones mapped within the GPTZCU, and there are no significant slopes which could have the potential for landslide risks.

Due to its location and physical conditions, future development in the Planning Area would be subject to geologic and seismic constraints which may represent a potentially significant impact on future structures.

### Key Opportunity sites

The four opportunity sites have similar risks from earthquakes, liquefaction, and other geologic constraints similar to those throughout the City. The City's development review process requires site-specific assessments of geotechnical constraints prior to development. Compliance with the recommendations of such reports will reduce potential impacts related to geologic and soil constraints to less than significant levels.

### General Plan Update

The Safety Element of the current General Plan contains implementation policies 2.5.1 and 2.5.2 that require soil studies for critical facilities and the design of buildings to meet seismic constraints. In addition, the City Municipal Code requires soil constraints studies for new development.

The Safety Element of the GPTZCU contains Goal S-1 to help the community be prepared for earthquakes. In support of that goal, Policies S-1.1 and S-1.2 outline ways to prepare families and the community, while Policy S-1.3 encourages coordination with other agencies regarding preparedness and response. Policy S-1.4 focuses on seismic standards for existing buildings while Policy S-1.5 focuses on new building standards. Policies S-1.6 and S-1.7 encourage enhanced resiliency to earthquake damage, and Policy S-1.8 requires appropriate studies for new development regarding geologic and soil constraints, including liquefaction.



The Goals and Policies of the General Plan ensure that the information on seismic risks, safe practices, emergency facilities, and evacuation routes are available through public awareness programs, and ensuring safety through seismic rehabilitation of existing structures, avoiding unstable ground for development, and incorporating seismically safe designs into new buildings and structures. The City's Municipal Code requires appropriate assessments of potential geologic and soil constraints for new development.

In addition to the General Plan and Municipal Code, the State Building Code (SBC), CBC, and Los Angeles County Building Code, (LACBC) have guidelines on building design and construction based on seismic constraints and expected ground shaking and ground failure throughout California. Through the City's existing development review process, proposed private projects are evaluated against the seismic design constraints of all pertinent building codes.

#### **Level of Significance Before Mitigation**

With implementation of the General Plan goals and policies, and all applicable building codes, potential impacts related to geologic and seismic constraints on future development within the Planning Area, including the key opportunity sites, will be reduced to less than significant levels.

#### **Mitigation Measures**

None required.

#### **Soil Erosion**

#### ***Impact GEO-2 – Would the GPTZCU Result in substantial soil erosion or the loss of topsoil?***

#### **Analysis of Impacts**

##### City-wide

The Planning Area is characteristically flat and highly developed with limited undeveloped areas include City parks, school fields, and landscaping around buildings. There is no significant anticipated risk of erosion resulting from steep slopes, since the City is relatively flat, or from wind and rain in areas of exposed soils within the Planning Area. Future development resulting from implementation of the GPTZCU has the potential to expose surficial soils and, as a result, local soils may be subject to erosion or loss of topsoil during development.

The Regional Water Quality Control Board (RWQCB) regulates the discharge of storm water from municipalities and activities within their jurisdiction including construction. The City is a signatory of the Los Angeles County Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharge. The requirements include guidance and regulations for construction-related erosion control, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for projects which would disturb one or more acres. The requirements also include appropriate best management practices (BMPs) that should be included to help prevent substantial soil erosion or the loss of topsoil.

Key Opportunity sites

Similar to the rest of the City, the four opportunity sites are flat and subject to the same state and regional water quality regulations. Through the City's development review process development on these four sites will comply with the various water quality requirements regarding erosion.

General Plan Update

The Safety Element of the proposed GPTZCU contains Goal S-1 and Policy S-1.8 that requires appropriate studies for new development regarding geologic and soil constraints, including liquefaction. These reports will help ensure that potentially hazardous soil conditions and the potential for offsite erosion are fully evaluated prior to development.

In addition, the City's Municipal Code, Chapter 154.17 ensures the City will review all project plans and impose conditions as required to safeguard water quality and erosion control prior to the issuance of either a building permit or grading plan approval. The City's development review process will evaluate proposed development against established BMPs and other water quality-related guidelines, many of which are designed to control runoff and erosion.

With implementation of the General Plan goals and policies, water quality regulatory permitting requirements, and guidelines for erosion control in the Municipal Code, potential impacts related to erosion from future development within the Planning Area, including the key opportunity sites, will be reduced to less than significant levels.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None required.

***Unstable Geologic Unit***

***Impact GEO-3 – Would the GPTZCU be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

**Analysis of Impacts**City-wide

As previously indicated in Impact GEO-2, the Planning Area contains soil constraints. The underlying geology within the GPTZCU consists of deep alluvial deposits and major regional faults, including the San Andreas Fault. The City has experienced moderate ground shaking in the past from regional earthquakes. While liquefaction is not likely due to the depth to groundwater, localized soil constraints combined with strong ground shaking create a potential for lateral spreading, subsidence, or possibly liquefaction in certain portions of the City.

Landslides zones are not mapped within the City, and there are no steep slopes or areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate that landslides are likely within the GPTZCU. Some

portions of the Planning Area may be subject to soil settlement or may have expansive soils. Localized subsidence relating to excessive regional groundwater withdrawal is also a potential hazard.

Due to the presence of local and regional faults and soil conditions, portions of the City may experience subsidence, lateral spreading, or collapse during strong seismic events in addition to the limited potential for liquefaction or other soil constraints. These seismic-related conditions could affect structures and their occupants of future development under the GPTZCU.

#### Key Opportunity sites

The four opportunity sites have similar risks from geologic and soil constraints similar to those throughout the City. The City's development review process requires site-specific assessments of such constraints prior to development. Compliance with the recommendations of such reports will reduce potential impacts related to geologic and soil constraints to less than significant levels.

#### General Plan Update

The Safety Element of the current General Plan contains implementation policies 2.5.1 and 2.5.2 that require soil studies for critical facilities and design of buildings to meet seismic constraints.

The Safety Element of the GPTZCU contains Goal S-1 and its Policy S-1.8 requires appropriate studies for new development regarding geologic and soil constraints, including liquefaction. In addition, the City's Municipal Code requires appropriate assessments of potential geologic and soil constraints for new development.

In addition to the General Plan, the State Building Code (SBC), CBC, and Los Angeles County Building Code, (LACBC) have guidelines on building design and construction based on onsite soil constraints. During the City's existing development review process, proposed private projects are evaluated in light of actual onsite geologic or soil constraints and all pertinent building codes.

With implementation of the General Plan goals and policies and all applicable building codes, potential impacts related to seismically induced constraints on future development within the Planning Area, including the key opportunity sites, will be reduced to less than significant levels.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### ***Expansive Soil***

***Impact GEO-4 – Would the GPTZCU be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?***

#### **Analysis of Impacts**

### City-wide

As previously indicated, the Planning Area contains a number of soil constraints including the potential for expansive soils. In areas where soils have a high clay content, the potential exists for expansion when the soil becomes saturated with water. This type of soil constraint could affect structures and their occupants of future development under the GPTZCU.

### Key Opportunity sites

The four opportunity sites have similar risks from geologic and soil constraints similar to those throughout the City. The City's development review process requires site-specific assessments of such constraints prior to development. Compliance with the recommendations of such reports will reduce potential impacts related to geologic and soil constraints to less than significant levels.

### General Plan Update

The Safety Element of the current General Plan contains implementation policies 2.5.1 and 2.5.2 that require soil studies for critical facilities and design of buildings to meet seismic constraints.

The Safety Element of the GPTZCU contains Goal S-1 and its Policy S-1.8 requires appropriate studies for new development regarding geologic and soil constraints, including expansive soils. In addition, the City's Municipal Code requires appropriate assessments of potential geologic and soil constraints for new development.

In addition to the General Plan, the State Building Code (SBC), CBC, and Los Angeles County Building Code, (LACBC) have guidelines on building design and construction based on onsite soil constraints. During the City's existing development review process, proposed private projects are evaluated in light of actual onsite geologic or soil constraints and all pertinent building codes.

With implementation of the General Plan goals and policies and all applicable building codes, potential impacts related to seismically induced constraints on future development within the Planning Area, including the key opportunity sites, will be reduced to less than significant levels.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### ***Alternative Waste Water Systems***

***Impact GEO-5 – Would the GPTZCU have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?***

### **Analysis of Impacts**

City-wide

As previously indicated, the Planning Area contains soil constraints and seismic constraints, and local geology influences the feasibility and placement of septic or similar wastewater treatment systems. However, the entire Planning Area has piped sewer systems and septic systems are not allowed for new development.

Key Opportunity sites

Similar to the rest of the City, the four opportunity sites are served by piped sewer systems, and septic or other alternative wastewater treatment systems are not allowed.

General Plan Update

Since septic or other alternative wastewater treatment systems are not allowed in the City, the existing General Plan and the proposed GPTZCU do not have goals or policies addressing these systems. Therefore, the General Plan goals and policies would have no impacts related to septic tanks or alternative wastewater disposal systems relative to future development within the Planning Area.

**Level of Significance Before Mitigation**

No impact.

**Mitigation Measures**

None required.

***Paleontological Resources***

***Impact GEO-6 – Would the GPTZCU directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

**Analysis of Impacts**

City-wide

The Puente Hills, located several miles north of the Planning Area, are known to contain paleontological resources (i.e., fossils). The Planning Area is relatively flat and contains predominantly younger alluvial deposits from geologically recent flood plain deposits. These younger alluvial deposits are from the Holocene Epoch (11,700 years ago to modern day). The Planning Area is located within an extensive alluvial plain and geological analysis does not reveal the presence of, or potential for, unique geological features.

Alluvial deposits, particularly from the Pleistocene Epoch (2,580,000 to 11,700 years ago) can contain fossilized material. The Society of Vertebrate Paleontology states that vertebrate fossils are significant nonrenewable paleontological resources that are afforded protection by federal, state and local environmental laws and guidelines, although invertebrate fossils are not afforded the same protection. While there is some potential for invertebrate fossils to be present in soils within the Planning Area, invertebrate fossils would not generally constitute a significant resource. Vertebrate fossils are rarer, and fossils generally are unlikely to be found within younger alluvial deposits.

The City's development review process would require research and technical analysis to determine if a site contains identified or possible paleontological or unique geologic resources.

#### Key Opportunity sites

Similar to the rest of the City, the four opportunity sites are underlain by recent alluvial materials and the likelihood of finding palaeontologic materials is negligible.

#### General Plan Update

Because of the low potential for paleontological discovery, the existing General Plan and the proposed GPTZCU do not contain any goals, policies, or implementation programs relative to paleontological resources.

With implementation of the City's existing development review process, potential impacts related to paleontological resources from future development within the Planning Area will remain at less than significant levels.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### ***Cumulative Impacts***

#### ***Impact GEO-7 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to Geology and Soils?***

#### **Analysis of Impacts**

The Planning Area is in a seismically active area. The greater Los Angeles region straddles two tectonic plates and contains many fault zones, including two blind thrust faults beneath the City. The Planning Area is subject to moderate ground shaking from regional faults and localized areas may experience liquefaction, subsidence, expansive soils, or other seismic or soil constraints. Due to its location and physical conditions, future development in the Planning Area would be subject to geologic and seismic constraints which may represent a potentially significant impact on future structures and could affect previously undiscovered paleontological resources as well.

State law requires that the Safety Elements of city general plans, including Santa Fe Springs, address potential geologic and seismic constraints. In addition, the General Plans for the surrounding cities and the County General Plan are all required to identify potential risks from geologic and seismic conditions and contain goals and policies to address these risks and protect the public. These goals and policies are intended to be consistent with state law and are similar to those of Santa Fe Springs' General Plan. In addition to local general plans, the State Building Code (SBC), CBC, and Los Angeles County Building Code, (LACBC) have guidelines on building design and construction based on seismic constraints and expected ground shaking and ground failure throughout California.

In these ways, potential cumulative impacts to future development from geologic, seismic, and soil constraints will be minimized, and future development in the City of Santa Fe Springs under the GPTZCU will not make a significant contribution to any cumulative regional impacts on geologic, seismic, soil, or paleontological resources.

**Level of Significance Before Mitigation**

Less than significant cumulative impacts.

**Mitigation Measures**

None required.

**4.7.5 – REFERENCES**

California Department of Conservation, 2021. California Geological Survey (CGS) Regulatory Maps. (<https://www.conservation.ca.gov/cgs/maps-data/> website accessed April 22, 2021).

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Los Angeles County Department of Public Works, 2007. Stormwater Pollution Prevention Plan (SWPPP) Preparation Manual. (<https://dpw.lacounty.gov/cons/specs/SWPPPMannual.pdf> website accessed April 15, 2021).

United States Geological Services, 2021. U.S. Quaternary Faults. (<https://www.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf> website accessed April 1, 2021).

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## 4.8 – Greenhouse Gases

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This section describes the existing greenhouse gases (GHG) setting of the Santa Fe Springs General Plan Planning Area; identifies associated regulatory requirements; evaluates the potential GHG and climate change impacts of the General Plan and Targeted Zoning Code Update (GPTZCU); and identifies mitigation measures related to implementation of the Project. The methodologies and assumptions used in the preparation of this section follow guidance from the South Coast Air Quality Management District (SCAQMD). Information on existing GHG emissions levels and applicable Federal and State regulations were obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This GHG analysis has been closely coordinated with the Air Quality and Energy analyses in Sections 4.3 and 4.6 of this EIR. Please refer to Appendix D for detailed air quality and GHG emissions estimates (MIG, 2021).

### 4.8.1 – ENVIRONMENTAL SETTING

#### Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (°F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic
- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet, and without it, life as we know it on Earth would not exist. Human activities since the beginning of the industrial revolution (approximately 150 years) have been adding to the natural greenhouse effect by increasing the gases in the atmosphere that "trap" energy, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.



## Greenhouse Gases

Gases that “trap” heat in the atmosphere and affect regulation of the Earth’s temperature are known as “greenhouse gases”. Many chemical compounds in the Earth’s atmosphere exhibit the GHG property. GHG allows sunlight to enter the atmosphere freely. When the sunlight strikes the Earth’s surface, it is either absorbed or reflected back toward space. Earth, or materials near the Earth’s surface, that have absorbed energy from sunlight warm up during the daytime and emit infrared radiation back toward space during both the daytime and nighttime hours. GHG absorbs this long-wave, infrared radiation and helps keep the energy in the Earth’s atmosphere.

GHG that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHG are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide, or CO<sub>2</sub>), and off-gassing from low-oxygen environments such as swamps or exposed permafrost (methane or CH<sub>4</sub>). However, GHG emissions from human activities such as fuel combustion (e.g., CO<sub>2</sub>) and refrigerants use (e.g., hydrofluorocarbons, or HFCs) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric CO<sub>2</sub> concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to approximately 419 ppm in June 2021 (NOAA, 2021). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations’ Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHG—CO<sub>2</sub>, CH<sub>4</sub>, nitrous oxide (N<sub>2</sub>O), and sulfur hexafluoride (SF<sub>6</sub>)—and two groups of gases—HFCs and perfluorocarbons (PFCs). These GHG are the primary GHG emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the Earth’s temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Black carbon consists of particles emitted during combustion; although a particle and not a gas, black carbon also acts to trap heat in the Earth’s atmosphere. The most common GHG are described below.

- **Carbon Dioxide (CO<sub>2</sub>)** is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of CO<sub>2</sub> from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO<sub>2</sub> at the sea surface. CO<sub>2</sub> is also released from plants during wildfires. Volcanic eruptions release a small amount of CO<sub>2</sub> from the Earth’s crust. Human activities that affect CO<sub>2</sub> in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of CO<sub>2</sub> emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO<sub>2</sub>. Emissions from industrial activities also emit CO<sub>2</sub> such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.

- **Methane (CH<sub>4</sub>)** is emitted from human activities and natural sources. Natural sources of CH<sub>4</sub> include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause CH<sub>4</sub> releases include fossil fuel production, animal digestive processes from farms, manure management, and waste management. It is estimated that 50% of global CH<sub>4</sub> emissions are human generated. Releases from animal digestive processes at agricultural operations are the primary source of human-related CH<sub>4</sub> emissions. CH<sub>4</sub> is produced from landfills as solid waste decomposes. CH<sub>4</sub> is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases CH<sub>4</sub>. Wetlands are the primary natural producers of CH<sub>4</sub> because the habitat is conducive to bacteria that produce CH<sub>4</sub> during decomposition of organic material.
- **Nitrous Oxide (N<sub>2</sub>O)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N<sub>2</sub>O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N<sub>2</sub>O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of N<sub>2</sub>O, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.
- **Sulfur Hexafluoride (SF<sub>6</sub>)** is commonly used as an electrical insulator in high-voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF<sub>6</sub> occur during maintenance and servicing as well as from leaks of electrical equipment.
- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely human made and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing. HFCs and PFCs are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons.

In 1997, the U.S. was a signatory to the Kyoto Protocol, however, the treaty was not sent to Congress for ratification. Thus, while a signatory to the Kyoto Protocol, the U.S. is not an official party to this international agreement and is not subject to any emission reductions goals established pursuant to the Kyoto Protocol. Although the U.S. is not a party to this agreement, the GHG targeted for reduction by the Kyoto Protocol are also targeted under federal and State GHG reporting and emissions reduction programs.

GHG can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO<sub>2</sub>, which has a GWP of one. By comparison, CH<sub>4</sub> has a GWP of 25, which means that one molecule of CH<sub>4</sub> has 25 times the effect on global warming as one molecule of CO<sub>2</sub>. Multiplying the estimated emissions for non-CO<sub>2</sub> GHG by their GWP determines their CO<sub>2</sub> equivalent (CO<sub>2</sub>e), which enables a project's combined GWP to be expressed in terms of mass CO<sub>2</sub> emissions. The GWP and estimated atmospheric lifetimes of the common GHG are shown in Table 4.8-1 (Global Warming Potential (GWP) of Common GHG (100-Year Horizon)).

**Table 4.8-1**  
**Global Warming Potential (GWP) of Common GHG (100-Year Horizon)**

GHG	GWP <sup>(A)</sup>	Sources	GHG	GWP <sup>(A)</sup>	Sources
Carbon Dioxide (CO <sub>2</sub> )	1	Transportation, electricity production, fossil fuel combustion in industrial, residential, and commercial operations	Perfluorocarbons (PFCs)		
Methane (CH <sub>4</sub> )	25	Agriculture, industrial operations, landfills	CF <sub>4</sub>	6,500	Refrigerants, aluminum production, semiconductor manufacturing, and magnesium production and processing
Nitrous Oxide (N <sub>2</sub> O)	298	Fertilizer, transportation, waste and wastewater treatment, manufacturing, refining	C <sub>2</sub> F <sub>6</sub>	9,200	
Hydrofluorocarbons (HFCs)			C <sub>4</sub> F <sub>10</sub>	7,000	
HFC-23	14,800	Refrigerants, aluminum production, semiconductor manufacturing, and magnesium production and processing	C <sub>6</sub> F <sub>14</sub>	7,400	
HFC-134a	1,430		Sulfur Hexafluoride (SF <sub>6</sub> )	22,800	Maintenance and servicing of high-voltage electrical transmission and distribution equipment
HFC-152a	140				
HCFC-22	1,700				

Source: CARB 2014, modified by MIG  
(A) GWPs are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) 4<sup>th</sup> Assessment Report.

### Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA, 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation. The potential impacts of global climate change in California are detailed below.

In January 2018, the CNRA adopted *Safeguarding California Plan: 2018 Update*, which builds on nearly a decade of adaptation strategies to communicate current and needed actions the State government should take to build climate change resiliency. It identifies hundreds of ongoing actions and next steps that State agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations. The 2018 update also has two new chapters and incorporates a feature showcasing the many linkages among policy areas. A new “Climate Justice” chapter highlights how equity is woven throughout the entire plan (CNRA, 2018).

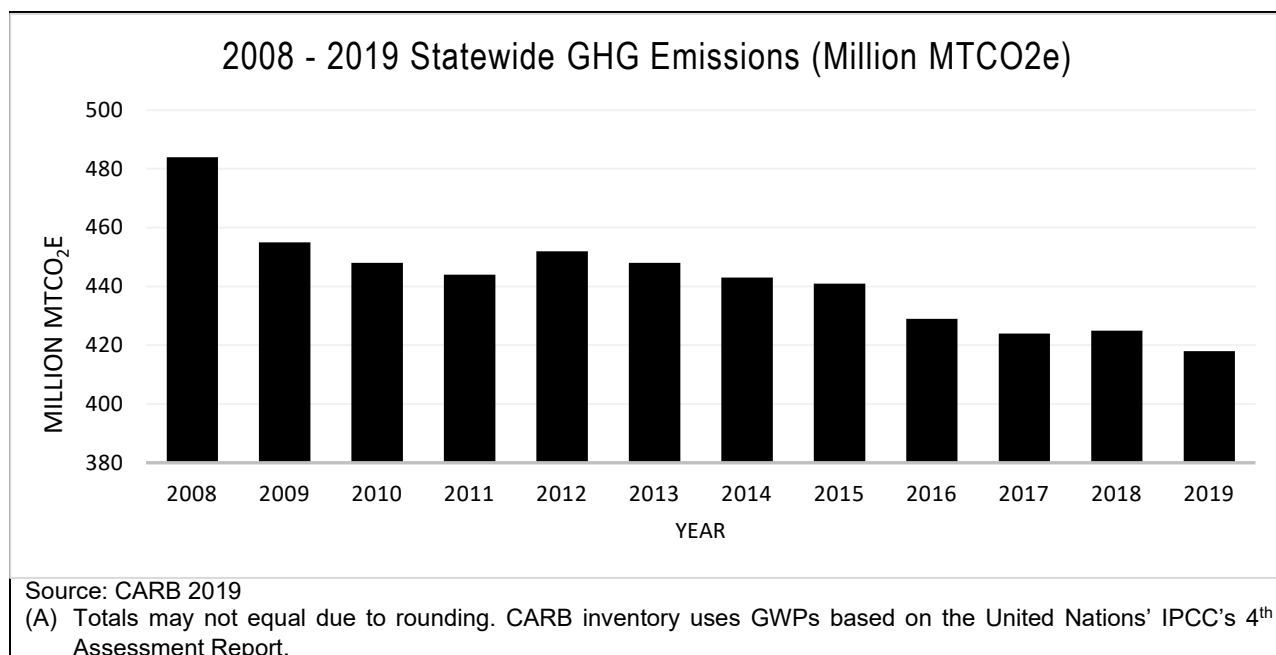
### Statewide GHG Emissions

CARB prepares an annual statewide GHG emission inventory using regional, State, and federal data sources, including facility-specific emissions reports prepared pursuant to the State’s Mandatory GHG Reporting Program. The statewide GHG emission inventory helps CARB track progress towards meeting the State’s Assembly Bill (AB) 32 GHG emissions target of 431 million metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e), as well as establish and understand trends in GHG emissions<sup>1</sup>. Statewide GHG emissions for the 2008 to 2019 time period are shown in Table 4.8-2.

**Table 4.8-2**  
**2008-2019 Statewide GHG Emissions (in Million MTCO<sub>2</sub>e)**

Scoping Plan Sector	Year											
	‘08	‘09	‘10	‘11	‘12	‘13	‘14	‘15	‘16	‘17	‘18	‘19
Agriculture	35	33	34	34	36	34	35	33	33	32	33	32
Commercial/Residential	44	45	46	46	44	44	38	39	41	41	41	44
Electric Power	120	101	90	89	98	91	89	85	69	62	63	60
High GWP	12	12	14	15	16	17	18	19	19	20	21	21
Industrial	90	87	91	89	89	92	92	90	89	89	89	88
Recycling and Waste	8	9	9	9	9	9	9	9	9	9	9	9
Transportation	175	168	165	162	161	161	163	166	170	171	170	166
Total Million MTCO <sub>2</sub> e <sup>(A)</sup>	<b>484</b>	<b>455</b>	<b>448</b>	<b>444</b>	<b>452</b>	<b>448</b>	<b>443</b>	<b>441</b>	<b>429</b>	<b>424</b>	<b>425</b>	<b>418</b>

<sup>1</sup> CARB approved use of 431 million MTCO<sub>2</sub>e as the state’s 2020 GHG emission target in May 2014. Previously, the target had been set at 427 million MTCO<sub>2</sub>e.



As shown in Table 4.8-2, statewide GHG emissions have generally decreased over the last decade, with 2018 levels (425 million MTCO<sub>2</sub>e) approximately 12% less than 2007 levels (488 million MTCO<sub>2</sub>e) and below the State's 2020 reduction target of 431 million MTCO<sub>2</sub>e. The transportation sector (170 million MTCO<sub>2</sub>e) accounted for more than one-third (approximately 40%) of the State's total GHG emissions inventory (425 million MTCO<sub>2</sub>e) in 2018.

### Existing Planning Area GHG Emissions

The existing land uses within the Planning Area contribute to existing city, regional, and statewide GHG emissions. The Planning Area's existing GHG emissions, presented below in Table 4.8-3 (Existing (2020) GHG Emissions in the Planning Area), were estimated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. GHG emissions generated within the Planning Area primarily come from the area, energy, and mobile sources described in Section 4.3.1, Air Quality (Environmental Setting), as well as the following additional sources specific to GHG emissions:

- **Energy use and consumption:** Emissions generated from purchased electricity and natural gas. As estimated using CalEEMod, the existing land uses in the Planning Area use and consume approximately 1,118,292,090 kilowatt hours (kWh) of electricity per year and 1,151,802,340 kilo-British Thermal Units (kBtus) of natural gas per year.
- **Solid waste disposal:** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod estimates approximately 107,292 tons of solid waste are generated per year by the people working and living within the Planning Area.
- **Water/wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses within the Planning Area use approximately 19,211 million gallons of water per year.

The Planning Area's existing GHG emissions were estimated using default emissions assumptions provided by CalEEMod, with the Project-specific modifications described in Section 4.3.1 and below:

- **Energy use and consumption:** In addition to natural gas usage, the existing land uses in the Planning Area would generate indirect GHG emissions from electricity use. Southern California Edison (SCE) provides electricity service in the City of Santa Fe Springs. The CalEEMod default GHG intensity values for this electric service provider are for 2021 and do not represent existing and future reductions in GHG intensity that have been achieved under the State's Renewable Portfolio Standard (RPS, see Section 4.8.2). To account for this, CalEEMod default assumptions regarding energy use were adjusted as follows:
  - The SCE GHG intensity value for CO<sub>2</sub> was increased from 393 pounds/megawatt-hour (lbs/MWh), SCE's renewable energy mix from 2021, to 532 lbs/MWh, which reflects SCE's renewable energy mix in 2020 (SCE, 2019). The increase in the amount of CO<sub>2</sub> emissions associated with electricity supplied by SCE is reflective of a less "green" renewables mix in historical years.

The Planning Area's existing GHG emissions are summarized in Table 4.8-3 (Existing Land Use GHG Emissions Estimates) below. The emissions are shown for two scenarios:

- **Year 2020 (Current Conditions),** which are based on Year 2020 vehicle fleet characteristics (e.g., vehicle type, age, emission rates), and represent the emissions levels that existed at the time the GPTZCU was prepared.
- **Year 2040 (Future Conditions),** which are based on Year 2040 vehicle fleet characteristics and RPS energy goals (60% renewable energy) and represent the projected emissions that existing land uses would generate in the future (assuming no increase in population or change in land uses). This scenario provides an estimate of how emissions would change in the Planning Area as a result of regulations that would reduce motor vehicle emissions in the future, and allows for distinguishing the potential change in emissions that would occur from the proposed change in land uses that would occur with implementation and buildout of the GPTZCU in Year 2040, as opposed to a change in emissions that would occur from regulatory requirements that would be in place whether or not the GPTZCU is adopted.

**Table 4.8-3  
Existing Land Use GHG Emissions Estimates**

Source	GHG Emissions (Metric Tons / Year)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total MTCO <sub>2</sub> e
Existing Land Use Operational Emissions in Year 2020 (Current Conditions)				
Area	3,978	4	0.1	4,105
Energy	331,311	18	3.2	332,699
Mobile	454,627	26	20.8	461,478
Waste	22,650	1,339	0.0	56,115
Water	65,253	579	14.0	83,921
Total Existing GHG <sup>(A)</sup>	877,818	1,966	38.1	938,318
Service Population (SP) <sup>(B)</sup>				102,988
Existing GHG Efficiency (MTCO <sub>2</sub> e / SP)				9.1
Existing Land Use Operational Emissions in Year 2040 (Future Conditions)				
Area	3,978	4	0.1	4,105
Energy	137,829	18	3.2	139,218
Mobile	326,229	12	11.4	329,938
Waste	22,650	1,339	0.0	56,115
Water	22,485	579	14.0	41,153
Total Existing GHG <sup>(A)</sup>	513,170	1,952	28.7	570,530
Service Population (SP) <sup>(B)</sup>				102,988
Existing GHG Efficiency (MTCO <sub>2</sub> e / SP)				5.5
Source: MIG, 2021 (see Appendix D)				
(A) Totals may not equal due to rounding.				
(B) Service Population is defined as the sum of the number of residents and number of jobs supported by the GPTZCU (CAPCOA, 2010).				

## 4.8.2 – REGULATORY FRAMEWORK

This section summarizes key federal, State, and City statutes, regulations, and policies that would apply to the City of Santa Fe Springs General Plan. Global climate change resulting from GHG emissions is an ongoing environmental concern being discussed at the international, national, and statewide levels. At each level, agencies are considering strategies to control emissions of gases that contribute to global climate change.

### International and Federal

**International Regulation and the Kyoto Protocol.** In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the “United Nations’ Framework Convention on Climate Change” agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG in the

United States. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

**Federal Regulation and the Clean Air Act.** On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 MTCO<sub>2</sub>e. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a “major” source required to obtain a permit pursuant to the “Clean Air Act’s Prevention of Significant Deterioration” or “Title V” operating permit programs. The U.S. EPA’s Greenhouse Gas Reporting Program requires facilities that emit 25,000 MTCO<sub>2</sub>e or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decision makers.

**The Current Administration.** Former President Trump and the U.S. EPA during the time of his administration stated their intent to halt various federal regulatory activities to reduce GHG emissions. President Biden, who took office in January 2021, and his administration have begun to strengthen federal policy once again around GHG emissions on a national level. California and other states are still challenging some federal actions undertaken during the time of the Trump administration that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

The United States participates in the United Nations Framework Convention on Climate Change. While the United States signed the Kyoto Protocol, which would have required reductions in GHGs, Congress never ratified the protocol. The federal government chose voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science. In 2015, the Paris Agreement was adopted, which aims at keeping global temperature rise this century below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit temperature increase above an additional 1.5 degrees Celsius. The Agreement was signed by President Obama in April 2016, but the agreement does not contain enforcement provisions that would require U.S. Senate ratification. On November 4, 2019, Former President Trump formally began the process to leave the Paris Climate Agreement. In accordance with Article 28 of the Paris Agreement, that process was completed on November 4, 2020. As one of his first acts in the Oval Office, President Biden signed an executive order to have the United States rejoin the Paris Climate Agreement. At this time, there are no federal regulations or policies pertaining to GHG emissions that directly apply to the project.<sup>2</sup>

**Federal Vehicle Standards.** In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the U.S.

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<sup>2</sup> Though the U.S. EPA announced the Clean Power Plan on August 3, 2015, which sets standards for power plants and customizes goals for states to cut their carbon pollution, the U.S. Supreme Court stayed implementation of the Plan on February 9, 2016, pending further judicial review.



EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams per mile of CO<sub>2</sub> in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (U.S. EPA and NHTSA, 2016).

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule).

On September 27, 2019, the U.S. EPA and the NHTSA published the SAFE Vehicles Rule Part One: One National Program.” (84 Fed. Reg. 51,310 (Sept. 27, 2019.)) The Part One Rule revoked California’s authority to set its own greenhouse gas emissions standards and set zero emission vehicle mandates in California. As a result of the loss of the zero emission vehicles (ZEV) sales requirements in California, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years (CARB 2019b).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to increase in stringency at approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related “augural” fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) CO<sub>2</sub> emissions (CARB, 2020) and has been challenged by 23 states. The litigation is ongoing.

## State

**Assembly Bill 32 (California Global Warming Solutions Act) and Related GHG Goals.** In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order (EO) S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target was December 31, 2020.

As part of AB 32, CARB determined 1990 GHG emissions levels and projected a “business-as-usual” (BAU)<sup>3</sup> estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million MTCO<sub>2</sub>e (CARB 2007). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects 2020 statewide GHG emissions levels of 596 million MTCO<sub>2</sub>e and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million MTCO<sub>2</sub>e of GHG reductions and bring statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

EO B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, EO B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through EO B-30-15, Governor Brown signed Senate Bill (SB) 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, “protect the State’s most impacted and disadvantaged communities ...[and] consider the social costs of the emissions of greenhouse gases.”

**CARB Scoping Plan.** The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Scoping Plan were to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade

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<sup>3</sup> BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

program with other partners (including seven states in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB 2009). CARB estimated that implementation of these measures will achieve at least 174 million MTCO<sub>2</sub>e of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

In a report prepared on September 23, 2010, CARB indicated 40 percent of the reduction measures identified in the Scoping Plan had been secured (CARB 2010). Although the cap-and-trade program began on January 1, 2012 (after CARB completed a series of activities dealing with the registration process, compliance cycle, and tracking system), covered entities did not have an emissions obligation until 2013. In August 2011, the Scoping Plan was reapproved by CARB with the program's environmental documentation.

On February 10, 2014, CARB released the public draft of the "First Update to the Scoping Plan." "The First Update" built upon the 2008 Scoping Plan with new strategies and recommendations and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments (CARB 2014). "The First Update" defined CARB's climate change priorities over the next five years and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. "The First Update" evaluated how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. "The First Update" to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the 2017 Climate Change Scoping Plan update (CARB 2017), was adopted by CARB in December 2017. The primary objective for the 2017 Climate Change Scoping Plan is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030) established under EO B-30-15 and SB 32. The 2017 Climate Change Scoping Plan identifies an increased need for coordination among State, regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 million MTCO<sub>2</sub>e and 83 million MTCO<sub>2</sub>e by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons per capita by 2050. The major elements of the 2017 Climate Change Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- LCFS, with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the RPS to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH<sub>4</sub> and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.

- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

**Senate Bill 375 (Sustainable Communities and Climate Protection Act).** In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the Southern California Association of Governments (SCAG) region were eight percent by year 2020 and 13 percent by year 2035. These percent reductions are specifically attributable to reductions in per capita passenger vehicle GHG emissions relative to per capita GHG emissions in 2005. In September 2010 and February 2011, the eight percent and the 13 percent targets were adopted, respectively.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future*. The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with SB 375. The document contained a host of improvements to the region's multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrated the region's ability to attain and exceed the GHG emission-reduction targets set forth by the CARB, and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG's Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS's goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an 8% reduction in per capita passenger vehicle emissions by 2020, an 18% reduction by 2035, and a 21% reduction by 2040 when

compared with 2005 levels. These reductions met or exceeded the State’s mandate, which required an 8% reduction by 2020 and 13% by 2035 (i.e., an 18% reduction in per capita passenger vehicle emissions by 2035).

In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018). The new SCAG targets are an 8% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035. On May 7, 2020, SCAG adopted “Connect SoCal”, the 2020-2045 RTP/SCS, for federal transportation conformity purposes only. On September 3, 2020, SCAG’s Regional Council unanimously voted to approve and fully adopt Connect SoCal, and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is designed to meet the regional GHG reduction targets for SCAG that were identified by CARB in 2018.

Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal contains 10 primary goals, as detailed below:

1. Encourage regional economic prosperity and global competitiveness.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.
3. Enhance the preservation, security, and resilience of the regional transportation system.
4. Increase person and goods movement and travel choices within the transportation system.
5. Reduce greenhouse gas emissions and improve air quality.
6. Support healthy and equitable communities.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.
10. Promote conservation of natural and agricultural lands and restoration of habitats.

Connect SoCal’s “Core Vision” centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investment in transit and complete streets. The Core Vision includes: Sustainable Development, System Preservation and Resilience, Demand and System Management, Transit Backbone, Complete Streets, and Goods Movement.

From 2016 to 2045, Connect SoCal anticipates approximately 64 percent of households and 74 percent of new jobs will occur in Priority Growth Areas (PGAs). Connect SoCal’s PGA’s – Job

Centers, Transit Priority Areas (TPAs), High Quality Transit Areas (HQTAs),<sup>4</sup> Neighborhood Mobility Areas (NMAs), Livable Corridors, and Spheres of Influences (SOIs) – account for only 4 percent of the region’s total land areas, but will accommodate the aforementioned growth statistics. There is one TPA / HQTA within the Planning Area – it is located near where the BNSF railway intersects with Imperial Highway (SCAG, 2020).

**Senate Bill 350 (Clean Energy & Pollution Reduction Act) and Senate Bill 100.** SB 350 was signed into Law in September 2015 and establishes tiered increases to the RPS. The Bill requires 40% of the state’s energy supply to come from renewable sources by 2024, 45% by 2027, and 50% by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100, signed by Governor Brown on September 10, 2018, increased the RPS requirement for 2030 from 50% to 60%.

**Assembly Bill 1493.** With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and proactive approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California’s related request for a waiver, a waiver was granted. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars (ACC) program (formerly known as Pavley II) for model years 2017 through 2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards.

**Executive Order B-30-15, Senate Bill 32 & Assembly Bill 197 (Statewide Interim GHG Targets).** California EO B-30-15 (April 29, 2015) set an “interim” statewide emission target to reduce greenhouse emissions to 40% below 1990 levels by 2030, and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons. AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40% below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

**Executive Order B-55-18.** Governor Brown issued EO B-15-18 on September 10, 2018, which directs the State to achieve carbon neutrality as soon as possible and no later than 2045, and achieve and maintain net negative emissions thereafter.

**Title 24 Energy Standards.** The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a

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<sup>4</sup> HQTAs are corridor-focused PGAs within half-a-mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick passengers up at a frequency of every 15 minutes (or less) during peak commuting hours.

legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, went into effect on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also propose several smaller improvements in energy efficiency. The 2022 Building Energy Efficiency Standards were adopted by the CEC in August 2021, and will go into effect January 2023 if they are approved by the California Building Standards Commission. The update expands solar photovoltaic systems standards and introduces battery storage standards for new construction. It also encourages electric heat pump technology and establishes electric-ready requirements for newly constructed residential and commercial buildings.

**Center for Biological Diversity v. California Department of Fish and Wildlife.** In its decision in *Center for Biological Diversity v. California Dep’t of Fish and Wildlife (Newhall)* 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a proposed project’s GHG emissions:

1. A calculation of emissions reductions compared to a BAU scenario based upon the emissions reductions in CARB’s Scoping Plan, including examination of the data to determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.
2. A lead agency might assess consistency with AB 32’s goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.
3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.
4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

## Local

**City General Plan.** The City’s proposed GPTZCU contains the following goals and policies related to global climate change and greenhouse gas emissions:

- **Goal LU-1: A Balanced Community of Thriving Businesses, Healthy Neighborhoods, Excellent Community Facilities, and Interesting Places**
  - **Policy LU-1.4: Transit-Oriented Communities.** Develop transit-oriented districts around commuter rail stations to maximize access to transit and create vibrant new neighborhoods.
- **Goal LU-3: Clean Industrial Businesses**
  - **Policy LU-3.3: Freight and Industrial Green Technology.** Encourage technological solutions to reduce pollutants and airborne emissions associated with rail and road freight transport and other industrial operations.
  - **Policy LU-3.8: Green Industrial Operations.** Encourage industrial businesses to utilize green building strategies, green vehicle fleets, energy-efficient equipment, and support renewable energy systems.
- **Goal LU-8: Vibrant Mixed-use, Pedestrian-friendly Districts Around Transit Stations**
  - **Policy LU-8.1: Transit-Oriented Communities.** Promote development of high-density residential uses, mixed use, and commercial services within walking distance of commuter rail transit stations.
  - **Policy LU-8.4: Improved Infrastructure.** Improve street infrastructure around transit stations to accommodate pedestrians and bicyclists.
- **Goal LU-10: Equitable Access to and Distribution of Public Facilities**
  - **Policy LU-10.6: Public Facilities Modernization.** Review and evaluate all public facilities to ensure structures are improved to be more sustainable, utilize digital tools, improve user centric design, and favor technological solutions and platforms, as feasible.
  - **Policy LU-10.8: Sustainability Improvements.** Improve energy and water efficiency at all public facilities, structures, and parks, using data to benchmark progress, and utilize analytics to identify best practices.
- **Goal EJ-2: Accessible Open Spaces and Increased Levels of Physical Activities**
  - **Policy EJ-2.2: Walking and Biking.** Promote walking, biking, and other modes of active transportation as easy, healthy, and fun ways to complete local errands and short trips.
- **Goal EJ-3: Meeting Disadvantaged Communities’ Needs**
  - **Policy EJ-3.3: Bicycle and Pedestrian Safety.** Prioritize pedestrian and bicycle safety improvements in disadvantaged communities.
  - **Policy EJ-3.5: Weatherization Programs.** Assist residents in disadvantaged communities to retrofit their homes to be more energy efficient, weatherproof, and better protected from air and noise pollution.
- **Goal C-1: A Multi-Modal Mobility Network that Efficiently Moves and Connects People, Destinations, Vehicles, and Goods**



- **Policy C-1.1: Multi-Modal.** Use a multimodal approach when pursuing street and other transportation network improvements, including accommodating pedestrians, cyclists, transit riders, and motor vehicles, and that accounts for land use and urban form factors that affect accessibility.
- **Policy C-1.2: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.
- **Policy C-1.5: Transportation Priority.** Prioritize transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities.
- **Goal C-2: Streets Designed and Managed to Ease Access for All Users**
  - **Policy C-2.8: Sidewalk Maintenance and Upkeep.** Ensure established sidewalks and related physical improvements are maintained and upkeep to provide a comfortable, safe, and desirable experience.
- **Goal C-3: Active Transportation Network: Connected Street Network for Pedestrians and Cyclists**
  - **Policy C-3.1: Promote Walking.** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.
  - **Policy C-3.2: Pedestrian Design.** Design and operate sidewalks, streets and intersections to maximize pedestrian safety and comfort through a variety of street design and traffic management solutions.
  - **Policy C-3.4: Neighborhood Streets.** Design or retrofit streets to improve walkability, strengthen connectivity, and enhance community identity; emphasize the provision of high-quality pedestrian and bikeway connections to transit stops/stations, commercial centers, and local schools; and design new streets and consider traffic calming where necessary, to reduce neighborhood speeding.
  - **Policy C-3.5: Innovative Bicycle and Pedestrian Connections.** Investigate the use of easements and/or rights-of-way along flood control channels, public utilities, railroads, and streets by cyclists and pedestrians.
  - **Policy C-3.6: Active Transportation Facilities.** Promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles.
  - **Policy C-3.7 Bicycle Facilities.** Plan for new shared-use paths, bicycle lanes, buffered bicycle lanes, bicycle routes, and bicycle boulevards that establish a comprehensive bicycle network citywide.
  - **Policy C-3.8: Bicycle Parking.** Establish standards for bicycling parking that include racks and locks and integrate bike parking facilities within all community facilities and activity areas, and consider parking reductions for commercial developments that provide bicycling parking.
  - **Policy C-3.11: Sidewalks Gaps.** Prioritize adding new sidewalks to streets either lacking sidewalks on both sides of the street or on one side of the street, with added priority in disadvantaged communities.

- **Policy C-3.12: Sidewalks Widening.** Evaluate widening sidewalks away from the curb to accommodate pedestrians along major transit routes and around planned and established transit stations.
- **Policy C-3.14: Neighborhood Streets.** Design or retrofit streets to improve walkability, strengthen connectivity, and enhance community identity; emphasize the provision of high-quality pedestrian and bikeway connections to transit stops/stations, commercial centers, and local schools; and design new streets and consider traffic calming where necessary, to reduce neighborhood speeding.
- **Goal C-4: A Comprehensive Transit System that Provides Convenient and Reliable Transit Access to Residential Neighborhoods and Activity Destinations**
  - **Policy C-4.1: Transit Stops and Stations.** Develop approaches and coordinate with other agencies to create comfortable, functional, informational, and safe transit shelters for bus stops and rail stations.
  - **Policy C-4.2: Transit Rider Needs.** Consult with all transit agencies operating in the City to ensure bus services and facilities meet the needs of residents and the business community, specifically targeting specific populations such as residents in high transit ridership areas, senior populations, school-age children, and residents living in disadvantaged communities.
  - **Policy C-4.3: First/Last Mile.** Encourage first/last mile infrastructure improvements, mobility services, transit facilities and amenities, and signage/wayfinding solutions to all bus stops and transit stations.
  - **Policy C-4.4: Transit Improvement Priority.** Prioritize transit and bus connectivity and access improvements within disadvantaged communities.
  - **Policy C-4.5: Improve Transit Access.** Improve multi-modal access to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station, including bicycle, micromobility, and pedestrian connections and improvements.
  - **Policy C-4.6: Metro L Line Expansion.** Consult with Metro during the planning and construction phases of Metro's L line and station along Washington Boulevard to ensure improvements achieve the City's connectivity and land use objectives.
  - **Policy C-4.7: Metro C Line Expansion:** Consult with regional partners and Metro to encourage expansion of the Metro C Line from its terminus in Norwalk to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station.
  - **Policy C-4.8: Light Rail Stations:** Consult with Metro to establish appropriate light rail stations that consider local context and provide opportunities for attractive design, placemaking, and integrating public art and amenities that reflect the City of Santa Fe Springs' community and culture.
  - **Policy C-4.8: Transit :** Require new development to post current transit and bus schedules and operating system information within communal gathering areas to encourage greater participation in public transportation.
- **Goal C-6: Street Designs that Accommodate Transportation Modes and Users of All Abilities**
  - **Policy C-6.1: Pedestrian Projects.** Incorporate new crossing treatments, curb treatments, signals and beacons, traffic-calming measures, and transit stop amenities identified in the Active Transportation Plan.

- **Policy C-6.7: Green Streets:** Integrate a green street approach into street improvements to address/include stormwater management, permeable surfaces, urban greenery, and sustainable landscaping improvements.
- **Goal C-8: A Transportation System Designed to Reduce Vehicle Miles Traveled**
  - **Policy C-8.1: Reducing Vehicle Miles Traveled:** Integrate transportation and land use decisions to reduce vehicle miles traveled and greenhouse gas emissions.
  - **Policy C-8.2: Transportation Management Strategies:** Evaluate the potential of transportation demand management strategies and intelligent transportation system applications to reduce vehicle miles traveled.
  - **Policy C-8.3: Employee Incentives:** Encourage businesses to provide employee incentives to utilize alternatives to conventional automobile travel (i.e., carpools, vanpools, buses, cycling, and walking).
  - **Policy C-8.4: Air Quality:** Encourage the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's Regulations.
  - **Policy C-8.5: Employee Work Hours Variability:** Encourage businesses to use flextime, staggered working hours, telecommuting, and other means to lessen peak commuter traffic.
  - **Policy C-8.6: Ridesharing:** Promote ridesharing through publicity and provision of information to the public through web-based apps and other approaches through collaboration with other agencies and jurisdictions.
  - **Policy C-8.7: Caltrans Consultation:** Consult with Caltrans regarding freeway improvements that can affect City roadways and businesses.
- **Goal C-12: A Sustainable and Reliable Water Supply**
  - **Policy C-12.2: Water Conservation.** Enforce conservation measures that eliminate or penalize wasteful uses of water as a response to drought, climate change, and other threats to adequate water supply.
  - **Policy C-12.3: Reclaimed Water.** Continue the development of the reclaimed water system to serve landscaped areas and industrial uses when financially feasible.
  - **Policy C-12.9: Water Conservation.** Promote cost-effective conservation strategies and programs that increase water use efficiency.
- **Goal S-5: A Resilient Community Well Prepared to Respond and Adapt to Climate Change**
  - **Policy S-5.4: Resilient Building Approaches.** Support building and site improvements that reduce energy and water use and urban heat island effects.
  - **Policy S-5.7: Passive Solar Design.** Encourage passive solar design for new development and community facilities, including cool roofs, architectural features that cool interiors, shade shelter areas, shaded playgrounds, and bus shelters canopies.
  - **Policy S-5.8: Urban Heat Island Countermeasures.** Integrate solutions to address urban heat island effect, particularly in disadvantaged communities, by

utilizing green infrastructure, shading building surfaces, expanding tree canopies over parking lots and expansive pavements, and expanding the urban forest.

- **Goal OSC-5: An Expansive Urban Forest and Related Benefits**

- **Policy OSC-5.5: Green Buffers.** Expand trees and landscaping to build an extensive green buffer between residential neighborhoods and freeways, rail corridors, and industrial districts to help reduce air pollution impacts. Prioritize residential neighborhoods that are designated as disadvantaged communities.
- **Policy OSC-5.6: Environmental Benefits.** Expand urban greening to reduce air and noise pollution, reduce and clean urban runoff, increase groundwater recharge, improve ecological diversity, and help cool neighborhoods by minimizing heat island effects.

- **Goal COS-7: Reduced Water Use**

- **Policy COS-7.1: Water-efficiency Programs.** Provide incentives and penalties to businesses and residents to reduce water use over the long term and as part of standard operating practices—not just in short-lived response to drought conditions.
- **Policy COS-7.2: Increased Use of Recycled Water.** Support initiatives of the Los Angeles County Sanitation Districts to increase availability and use of recycled wastewater.

- **Goal COS-8: Energy Efficient Operations and Structures**

- **Policy COS-8.1: Efficiency of Existing Buildings.** Improve energy efficiency of existing and new buildings, such as adding energy efficient appliances and fixtures, improvements to windows, reflective shingles, roof and wall insulations, and other green building strategies.
- **Policy COS-8.2: Efficiency City Operations.** Improve efficiency of municipal operations, public infrastructure, and City facilities and structures.
- **Policy COS-8.3: Energy Efficient Strategies.** Encourage energy-efficient strategies of all new projects (public and private), including appropriate structure orientation and site design, passive solar approaches, the use of shade trees to maximize cooling, and reduce fossil fuel consumption for heating and cooling.
- **Policy COS-8.4: Renewable Energy Industrial Facilities.** Promote the use of renewable energy and/or solar energy for large industrial operations on building rooftops or on large properties and support solar-ready buildings for large industrial buildings and warehouses.
- **Policy COS-8.5: Zero Net Energy.** Pursue Zero Net Energy standards for new public facilities, ensuring new buildings produce as much clean renewable energy as it consumes over the course of a year.

- **Goal COS-9: Air Quality Conditions that Improve Over Time**

- **Policy COS-9.1: Land Use and Transportation.** Allow urban and transit-oriented communities within walking distance of transit stops and stations to reduce vehicle trips and trip lengths.
- **Policy COS-9.2: Evaluate Trucking Emissions.** Support low emission solutions and use of alternative fuels to improve trucking fleet fuel efficiency.

- **Policy COS-9.3: Reducing Greenhouse Gas Emissions.** Identify the specific activities that the City will undertake to reduce greenhouse gas emissions.
- **Policy COS-9.5: Education Programs.** Partner with regional agencies to establish public education programs that provide information on ways to reduce and control emissions and make clean air choices.
- **Policy COS-9.6: Alternative Fuels.** Prioritize alternative fuel vehicles for City use, and encourage new residential, commercial, and industrial development be equipped with vehicle electric charging stations.
- **Policy COS-9.7: Coordination.** Provide updated data to the Southern California Association of Governments to assist in updates to the Sustainable Communities Strategies and Regional Transportation Plan.
- **Policy COS-9.8: Air Quality and Climate Change Analyses.** Require detailed air quality and climate change analyses and mitigation plans for all applications that have the potential to adversely affect air quality.
- **Goal COS-10: Substantially Reduced Solid Waste Production**
  - **Policy COS-10.1: Waste Recycle.** Identify industries and businesses that recycle waste materials for productive reuse, and develop a strategy to bring those businesses to the city as part of a “green” business development strategy.
  - **Policy COS-10.2: Reduce Waste Production.** Work with businesses in the city to identify strategies and practices that can reduce waste production..

#### 4.8.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. Per the CEQA Guidelines, implementation of the GPTZCU would have a significant impact related to GHG emissions if it would:

- A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?
- C. Would the project cause substantial adverse cumulative impacts with respect to greenhouse gases?

In order to provide guidance to local lead agencies on determining the significance of GHG emissions in their CEQA documents, the SCAQMD convened the first GHG Significance Threshold Working Group (Working Group) meeting on April 30, 2008 (SCAQMD 2008). To date, the Working Group has convened a total of 15 times, with the last meeting taking place on September 28, 2010 (SCAQMD 2010). Based on the last Working Group meeting, the SCAQMD identified an interim, tiered approach for evaluating GHG emissions intent on capturing 90 percent of development projects where the SCAQMD is not the lead agency. The following describes the basic structure of the SCAQMD’s tiered, interim GHG significance thresholds:

Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.

Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.

Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:

- a. 3,000 MTCO<sub>2</sub>e/yr for all land use types; or
- b. 3,500 MTCO<sub>2</sub>e/yr for residential; 1,400 MTCO<sub>2</sub>e/yr for commercial; 3,000 MTCO<sub>2</sub>e/yr for mixed use projects.

Tier 4 has three options for projects that exceed the screening values identified in Tier 3:

Option 1: Reduce emissions from business-as-usual by a certain percentage (currently undefined).

Option 2: Early implementation of applicable AB 32 Scoping Measures.

Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 MTCO<sub>2</sub>e/yr/SP by 2020 and 4.1 MTCO<sub>2</sub>e/yr/SP by 2035. For project-level analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 MTCO<sub>2</sub>e/yr/SP for the 2020 and 2035 calendar years, respectively.

The GPTZCU plans for growth through 2040, five years after the SCAQMD's latest Tier 4 interim efficiency target year (2035) identified above. Therefore, to evaluate the GPTZCU's GHG emissions against future GHG reduction goals, the plan-level efficiency target has been adjusted based on the GHG reduction targets of SB 32, which sets a target of 40 percent below 1990 levels by 2030, and Executive Order S-03-05, which sets a goal of 80 percent below levels by 2050. The resulting, interpolated efficiency target for the year 2040 is 2.6 MTCO<sub>2</sub>e/yr/SP.<sup>5</sup>

#### 4.8.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to GHG emissions and potential conflicts with a plan, policy, or regulation adopted for the purposes of reducing GHG emissions which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

##### GHG Emissions

***Impact GHG-1 – Would the GPTZCU generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?***

<sup>5</sup> To remain on track with future GHG reduction goals, it is necessary to identify the efficiency target for 2040. Pursuant to existing legislation, GHG emissions are required to be reduced to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050 – meaning a 40 percent reduction would need to occur between 2030 and 2050 compared to 1990 levels. 2040 is the halfway point between 2030 and 2050; thus, half the reductions that need to occur between 2030 and 2050 should be achieved by 2040 (i.e., GHG emissions should be 60 percent below 1990 levels by 2040). Using the efficiency metric for 2020, 6.6 MTCO<sub>2</sub>e/yr/SP (the same efficiency as 1990 pursuant to AB 32 reduction requirements) and multiplying through by 40 percent (i.e., 60 percent below 1990 levels) results in a derived efficiency metric of 2.6 MTCO<sub>2</sub>e/yr/SP for year 2040. The City is not applying or proposing to use 2.6 MTCO<sub>2</sub>e/yr/SP as a CEQA GHG significance threshold for general use; rather, it is only intended for use on this Project.

### Analysis of Impacts

#### City-wide

Implementation of the GPTZCU would result in construction and operational activities that would generate GHG emissions. As described in more detail below, the GHG emissions generated by the growth envisioned under the GPTZCU would exceed SCAQMD thresholds and result in a significant and unavoidable impact even with the inclusion of feasible mitigation measures.

#### *GHG Emissions*

As explained in more detail in Section 4.3, Air Quality, the planned land use changes that could occur under buildout conditions of the GPTZCU would result in an additional 4,572 dwelling units and 13,890 residents. The proposed GPTZCU would also increase the amount of non-residential building space by approximately one-and-a-half million square feet and accommodate approximately 4,787 new jobs within the Planning Area (see Table 3-2). The growth facilitated under implementation of the GPTZCU, including potential future development activities at the four Key Opportunity Sites, would result in construction activities that would generate GHG emissions primarily from fuel combustion in equipment during demolition, site preparation, grading, building construction, paving, and architectural coating activities and in worker, vendor, and haul trips to and from future development projects. Construction activities would occur intermittently at different sites within the Planning Area over the next approximately 20 years. Generally, the SCAQMD recommends amortizing construction GHG emissions over a 30-year period since construction activities for a project typically only occur towards the start of a project and cease to emit GHG upon the completion of construction activities. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. As described under Impact AQ-2, there is uncertainty regarding the timing and methods of construction activities that would occur for future development projects. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. For reasons discussed in Impact AQ-2, construction emissions were not estimated for the proposed GPTZCU.

The existing and proposed land uses envisioned by the GPTZCU would result in operational GHG emissions, primarily from mobile, energy, and area sources. Mobile sources, including vehicle trips to and from land uses within the City, would result primarily in emissions of CO<sub>2</sub>, with emissions of CH<sub>4</sub> and NO<sub>2</sub> also occurring in minor amounts. In addition to mobile sources, GHG emissions would also be generated from natural gas usage, electricity use, water conveyance and use, wastewater treatment, and solid waste disposal. Natural gas use would result in the emission of two GHGs: CH<sub>4</sub> (the major component of natural gas) and CO<sub>2</sub> (from the combustion of natural gas). Electricity use associated with both the physical usage of the development, as well as the energy needed to transport water/wastewater, would result in the production of GHGs if the electricity is generated through non-renewable sources (i.e., combustion of fossil fuels). Solid waste generated by land uses within the Planning Area would contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy when transporting and managing the waste. In addition, landfilling, the most common waste management practice, results in the release of CH<sub>4</sub> from the decomposition of organic materials.

Potential operational GHG emissions resulting from operation of the land uses proposed by the GPTZCU were estimated using CalEEMod, Version 2020.4.0. The modeling assumes GPTZCU growth consistent with the land use development intensities described in Impact AQ-2 (i.e., obtained from Table 3-2 and Table 3-3 of the Project Description). The modeling is based on default data assumptions contained in CalEEMod, with the project-specific modifications described under Impact AQ-2, as well as the following adjustments to default model assumption:

- **Energy Use and Consumption:** The GHG intensity value for CO<sub>2</sub> utilized in the modeling (150.55 lbs/MWh) is based on an estimated SCE carbon emission factor that reflects SCE's compliance with SB 100, which requires 60% of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2030.

The total unmitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 4.8-4 and compared against the potential GHG emissions that could exist in 2040 if the GPTZCU were not approved.<sup>6</sup> As described above, the SCAQMD recommends the use of an efficiency threshold for plan-level analysis in which potential emissions levels are considered in terms of how many GHG emissions would be produced by each resident and employee using a project's facilities. Thus, the adjusted 2040 project-level efficiency target of 2.6 MTCO<sub>2</sub>e/yr/SP is the primary contextual factor considered in evaluating the significance of the GPTZCU's GHG emissions changes.

As shown in Table 4.8-4, the Planning Area would emit approximately 585,021 MTCO<sub>2</sub>e annually by 2040. Dividing through by the Planning Area's service population (121,666 residents and employees) results in an efficiency metric of 4.8 MTCO<sub>2</sub>e/yr/SP for 2040. Although this GHG efficiency level does not meet the adjusted target for 2040 (2.6 MTCO<sub>2</sub>e/yr/SP), it does show an appreciable reduction from existing and future baseline conditions (the GHG efficiency occurring under 2040 with the GPTZCU would be approximately 47% less than existing 2020 conditions and 13% less than 2040 conditions without the GPTZCU).

The primary source of GPTZCU GHG emissions would be mobile sources, which represent approximately 58% of total annual GHG emissions occurring under 2040 growth conditions. The next highest source of GPTZCU GHG emissions would be energy sources, which would

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<sup>6</sup> Although CEQA generally requires an evaluation of impacts associated with project implementation against the conditions that exist at the time the Notice of Preparation (NOP) is published, CEQA Guidelines Section 15125(a)(2) allows a lead agency to, "...use projected future conditions (beyond the date of project operations) baseline as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision makers and the public." Existing conditions GHG emissions for Year 2020 (current baseline conditions) and Year 2040 (future conditions) have been provided in Section 4.8.1. As shown in Table 4.8-3 and described in Section 4.8.1, the existing land uses within the Planning Area would benefit from regulatory actions at the State level (i.e., vehicle and fuel efficiency standards and cleaner electricity), which would continue to reduce emissions over the next approximately 20 years, even if the GPTZCU is not approved or implemented. Therefore, to provide a conservative assessment of emissions associated with implementation of the proposed GPTZCU, GHG emissions associated with operation of the existing land uses in 2040 are compared against those proposed under the GPTZCU in 2040 to paint a more accurate picture of how the land uses proposed by the GPTZCU could change emissions in the Planning Area. This provides a more conservative assessment of emissions because the existing land use GHG emissions in 2020 were greater than those shown for the existing land uses shown in 2040 (see Table 4.8-3). Comparing the existing land use GHG emissions under 2040 conditions to proposed GPTZCU emissions (2040) is more worst-case than comparing the existing land use GHG emissions under 2020 conditions to proposed GPTZCU emissions.



represent approximately 24% of total annual GHG emissions. This impact would be **potentially significant**.

#### Key Opportunity Sites

Potential, future development activities at the four Key Opportunity Sites would generate GHG emissions during construction and operational activities. During construction, GHG emissions would primarily be generated from the combustion fuels in heavy-duty off-road construction equipment (e.g., bulldozers, backhoes, cranes, etc.). Unlike long-term operational emissions, which would be generated year after year and residents and employees occupy the structures, construction emissions would cease to emit GHG emissions once the structure is fully developed. Because of this, as described under the city-wide analysis, construction GHG emissions are typically amortized over a 30-year period and added to the operational emissions for comparison purposes against numeric thresholds.

As discussed in Section 4.3, Air Quality, there is a great deal of uncertainty regarding the nature in which development activities could occur at the Key Opportunity Sites. Multiple characteristics associated with specific development proposals affect the way in which a land use generates GHG emissions. For example, the larger a building is, and the more residents or employees it provides space for, is typically a good indicator of how much energy (e.g., electricity for lighting, natural gas for water and space heating, etc.) would be required for its operation. Building size and land use type is also generally a good indicator of how many trips a project will generate. These metrics are commonly used by transportation engineers to assess the number of trips and/or the quantity of VMT that could be generated by a specified land use, which in turn can then be transformed into an estimate of mobile source GHG emissions.

Because there is uncertainty regarding multiple aspects of how development activities would unfold at the Key Opportunity Sites, it is not possible at this time to accurately estimate GHG emissions associated with their future development. It is anticipated that one or more projects at the Key Opportunity Sites may have the potential to generate GHG emissions that are inconsistent with future state-wide GHG emission reduction goals. Accordingly, this impact is considered potentially significant.

#### Level of Significance Before Mitigation

##### City-wide

As shown in Table 4.8-4, the GPTZCU's 2040 growth projection would result in GHG emissions that exceed the adjusted SCAQMD derived plan-level efficiency metric. This is considered a **potentially significant** impact.

#### Key Opportunity Sites

As discussed previously, there is uncertainty regarding the specific nature in which future development activities could occur at the Key Opportunity Sites and, therefore, the quantity of GHG emissions that could be attributable to development / redevelopment activities at the Key Opportunity Sites. It cannot be known or confirmed at this time that the unmitigated GHG emissions associated with future development activities at any one of the Key Opportunity Sites would be consistent with future, state-wide GHG emission reduction goals. Accordingly, this is considered to be a **potentially significant** impact.

**Table 4.8-4  
Unmitigated GPTZCU GHG Emissions**

Source	GHG Emissions (MTCO <sub>2</sub> e / Year)		
	Existing Land Uses (2040) <sup>(A)</sup>	GPTZCU Land Uses (2040)	Net Change
Area	4,105	5,210 <sup>(B)</sup>	+1,104
Energy	139,218	143,047	+3,829
Mobile	329,938	338,892	+8,954
Waste	56,115	55,697	-417
Water	41,153	42,096	+943
Total <sup>(C)</sup>	570,530	585,021	+14,491
Service Population (SP)	102,988	121,666	+18,678
MTCO <sub>2</sub> e/yr/SP	5.5	4.8	-0.7
SCAQMD Tier 4 2020 Plan Level Efficiency Threshold	--	6.6	--
SCAQMD Tier 4 Adjusted 2040 Plan Level Efficiency Threshold	--	2.6	--
<b>Exceeds Threshold?</b>	--	<b>Yes</b>	--
Source: MIG, 2021 (see Appendix D).			
(A) See Table 4.8-3 for existing GHG emissions in the Planning Area.			
(B) The GPTZCU area source emissions assume landscaping emissions would be held constant between no-project conditions in 2040 (i.e., continued operation of existing land uses) and conditions proposed by the GPTZCU. The City of Santa Fe Springs is generally built out, and the types of redevelopment that would occur under implementation of the GPTZCU would generally involve more intensive, vertical development. The GPTZCU would not increase the area in the City that would be required to be maintained by landscaping equipment.			
(C) Totals may not equal due to rounding.			

### Mitigation Measures

#### City-wide

See Mitigation Measures AQ-2B, AQ-2C, AQ-2D, and AQ-2E.

**Mitigation Measure GHG-1A: Consider Adoption of a Zero Net Energy Ordinance.** Within two years of the adoption of the GPTZCU, the City shall consider and evaluate the feasibility of adopting an ordinance that amends the City's Municipal Code to require all new residential and/or non-residential development subject to Title 24, Part 6 of the California Building Code to achieve Zero Net Energy (ZNE) standards. If the City finds ZNE technology, programs, and/or other strategies are feasible and cost-effective, the City shall adopt a ZNE ordinance as expeditiously as possible given City resources. As defined by the California Energy Commission (CEC), ZNE standards require the value of the net energy produced by project renewable energy resources equals the value of the energy consumed annually by the project, using the CEC's Time Dependent Valuation (CEC, 2015).

**Mitigation Measure GHG-1B: Consider the Preparation and Adoption of a Climate Action Plan.** To implement General Plan Policy OSC-4.3, the City of Santa Fe Springs shall consider

preparing and adopting a Climate Action Plan (CAP) within two years of adoption of the GPTZCU that:

- 1) Establishes a community-wide greenhouse gas emissions inventory for a single, historic calendar year (e.g., the current year for which the CAP is being prepared).
- 2) Quantifies greenhouse gas emissions, both existing and proposed over a specified time period. The time period forecasted shall be no less than the Year 2040. Additional, forecasted years (e.g., 2030, 2035, etc.) may be included.
- 3) Identifies annual, community-wide greenhouse gas emission reduction targets (i.e., in MTCO<sub>2</sub>e) and/or efficiency targets (i.e., in MTCO<sub>2</sub>e per service population and/or capita) that align the City's emissions with legislatively adopted State-wide greenhouse gas reduction targets (e.g., AB 32 and SB 32) for a specified calendar year. For a calendar year beyond that which has a legislatively adopted greenhouse gas reduction target, the greenhouse gas emissions reduction goal for 2050 outlined in EO S-3-05 shall be used as a future benchmark. The identified annual, community-wide greenhouse gas emissions target for the City may be an interpolated value based on legislatively adopted State-wide greenhouse gas reduction targets and those issued by Executive Order.
- 4) Specifies measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified annual, community-wide greenhouse gas emission reduction targets and/or efficiency targets.
- 5) Establishes a mechanism to monitor the plan's progress toward achieving its community-wide greenhouse gas emission reduction targets and/or efficiency targets, and requires amendment if the CAP is not achieving specified levels.
- 6) Be adopted in a public process following environmental review.

**Mitigation Measure GHG-1C: Require a Project-level Greenhouse Gas Emissions Assessment for Conditional Uses and New Discretionary Development Projects.**

Applicants shall submit a project-level greenhouse gas (GHG) emissions analysis for conditional uses and new discretionary development projects. The GHG emissions analysis shall evaluate the project's consistency with adopted state-wide GHG emissions reduction goals, such as Senate Bill 32, EO S-3-05, or interpolated GHG emission reduction goal for 2040 that is based on state-wide GHG emissions reduction goals (e.g., an interpolated SCAQMD efficiency metric of 2.6 MTCO<sub>2</sub>e/yr/SP). If the project's GHG emissions are found to be inconsistent with state-wide GHG emission reduction goals, mitigation shall be identified and implemented to reduce emissions. The project-level GHG emissions analysis shall fully address the project's GHG emissions impacts using the checklist questions contained in the CEQA Guidelines Appendix G, Item VIII, Greenhouse Gas Emissions. Mitigation measures to reduce emissions could include, but are not limited to:

- Increasing the energy efficiency of the proposed building(s) (e.g., identifying building practices that go beyond CalGreen Code standards, identifying specific energy efficient appliances, etc.);
- Incorporating on-site renewable energy generation into project-design;
- Reducing the quantity of parking provided by the proposed development; and
- Reducing indoor and outdoor potable water consumption.

Key Opportunity Sites

See Mitigation Measures AQ-2B, AQ-2C, AQ-2D, AQ-2E, GHG-1A, GHG-1B, and GHG-1C.

Level of Significance After MitigationCity-wide

The GPTZCU includes goals and policies that promote mixed-use developments, transportation demand strategies, expansion of transit service, and other actions that reduce transportation-related GHG emissions. The GPTZCU also includes goals and policies that encourage sustainable and green development that reduce energy-related GHG emissions. Although the GPTZCU contains numerous goals and policies that highlight the City's intent to grow sustainably over the next couple decades, further actions are required to reduce GHG emissions. Accordingly, the City would implement Mitigation Measures AQ-2B, AQ-2C, AQ-2D, AQ-2E, as well as GHG-1A, GHG-1B, and GHG-1C to reduce the quantity of GHG emissions generated under implementation of the GPTZCU.

As discussed under Impact AQ-2, Mitigation Measure AQ-2B would generally prohibit the installation of natural gas hearths in new residential development, reducing GHG emissions from natural gas combustion in new residential development. Mitigation Measures AQ-2C and AQ-2D would support and increase the likelihood, accessibility, and convenience of owning and operating an EV, which could increase the use of EVs in the Planning Area (thereby reducing the number of fossil-fuel powered vehicles on roadways in the Planning Area and associated GHG emissions generated from mobile sources). Mitigation Measures AQ-2C and AQ-2D would also set forth expanded requirements for bicycle parking and supporting infrastructure, which could make that form of transportation more accessible to individuals in the Planning Area. Finally, Mitigation Measure AQ-2E has been incorporated to further reduce VMT by setting forth trip reduction requirements for certain types and sizes of development within the City.

Mitigation Measure GHG-1A would require the City to consider the feasibility of adopting an ordinance that would mandate all new residential and/or non-residential construction in the City meet ZNE standards, as feasible. Unlike embedded GHG emissions associated with electricity consumption, which can be reduced by supplying the electricity grid with more electricity produced from carbon-free sources, it is difficult to directly reduce GHG emissions associated with natural gas consumption without restricting its use. Reaching ZNE in new development, therefore, could reduce GHG emissions from natural gas consumption.

The total mitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 4.8-5. The mitigated emissions estimates include emissions reductions associated with Mitigation Measure AQ-2B. The estimates do not include reductions from Mitigation Measures AQ-2C through AQ-2E, because there is insufficient information to quantify potential emissions reductions from these mitigation measures. Similarly, GHG emission reductions from Mitigation Measure GHG-1A have not been estimated, because the Mitigation Measure does not guarantee emissions reductions would occur.

**Table 4.8-5  
Mitigated GPTZCU GHG Emissions**

Source	GHG Emissions (MTCO <sub>2</sub> e / Year)		
	Existing Land Uses (2040) <sup>(A)</sup>	GPTZCU Land Uses (2040)	Net Change
Area	4,105	4,105 <sup>(B)</sup>	0
Energy	139,218	143,047	+3,829
Mobile	329,938	338,892	+8,954
Waste	56,115	55,697	-417
Water	41,153	42,096	+943
Total <sup>(C)</sup>	570,530	583,837	+13,307
Service Population (SP)	102,988	121,666	+18,678
MTCO <sub>2</sub> e/yr/SP	5.5	4.8	-0.7
SCAQMD Tier 4 2020 Plan Level Efficiency Threshold	--	6.6	--
SCAQMD Tier 4 Adjusted 2040 Plan Level Efficiency Threshold	--	2.6	--
<b>Exceeds Threshold?</b>	<b>--</b>	<b>Yes</b>	<b>--</b>
Source: MIG, 2021 (see Appendix D). (A) See Table 4.8-3 for existing GHG emissions in the Planning Area. (B) The GPTZCU area source emissions assume landscaping emissions would be held constant between no-project conditions in 2040 (i.e., continued operation of existing land uses) and conditions proposed by the GPTZCU. The City of Santa Fe Springs is generally built out, and the types of redevelopment that would occur under implementation of the GPTZCU would generally involve more intensive, vertical development. The GPTZCU would not increase the area in the City that would be required to be maintained by landscaping equipment. (C) Totals may not equal due to rounding.			

As shown in Table 4.8-5, the mitigated GPTZCU GHG emissions estimates would continue to exceed the adjusted SCAQMD derived plan-level efficiency metric. Although the implementation of Mitigation Measures AQ-2B through AQ-2E would reduce the GHG emissions generated in the Planning Area, the GPTZCU's effect on GHG emissions would remain significant and unavoidable for a number of reasons. First, it is unknown how many projects would be subject to Mitigation Measures AQ-2C, AQ-2D, AQ-2E, GHG-1A, GHG-1B, and GHG-1C. Second, it is uncertain at this time if the ZNE provisions called out in Mitigation Measure GHG-1A would be adopted by the City or what GHG emissions reductions would be attributable to measures identified in the Climate Action Plan (see Mitigation Measure GHG-1B). For example, with regard to adopting a ZNE ordinance, the CEC identified in its May 20, 2017 staff workshop on the 2019 building efficiency standards ZNE strategy that ZNE was not a cost-effective standard for the 2019 Title 24 Building Code update, because, as the electric grid becomes greener in the future, rooftop PVs will have diminished carbon reduction benefits. In order to achieve ZNE, the electrification of homes will have to be coupled with grid harmonization strategies, such as consumer owned storage. As of the CEC's workshop in 2017, customer owned storage was still too expensive to be cost effective for the 2019 Title 24 standards (CEC 2017). In addition,

banning natural gas as an energy source may be precluded under Federal law.<sup>7</sup> Finally, although Mitigation Measure GHG-1C would require a project-level evaluation for future discretionary projects proposed under implementation of the GPTZCU, it cannot be assured at this time that every single one of those projects would be able to mitigate their emissions in line with state-wide goals. Since the GHG emissions reductions attributable to Mitigation Measures AQ-2C, AQ-2D, AQ-2E, GHG-1A, GHG-1B, and GHG-1C cannot be definitively assessed at this time, and since the GHG emissions reductions associated with Mitigation Measure AQ-2B do not meet the interpolated SCAQMD efficiency metric of 2.6 MTCO<sub>2</sub>e/yr/SP, this impact would be **significant and unavoidable**.

#### Key Opportunity Sites

As described under the city-wide analysis, future projects occurring under implementation of the proposed GPTZCU would be required to implement Mitigation Measures AQ-2B through AQ-2E and GHG-1A through GHG-1C. The specific details and analysis related to the individual development proposals would be required to be summarized in the project-level analysis required under Mitigation Measure GHG-1C. Despite the mitigation requirements identified, it cannot be definitely known at this time that these mitigation measures (in addition to other measures that may be required pursuant to Mitigation Measure GHG-1C), would be able to reduce individual project-level emissions at the Key Opportunity Sites to levels that are consistent with state-wide GHG emissions reduction goals. Accordingly, this impact would be **significant and unavoidable**.

**Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases?**

***Impact GHG-2 – The proposed GPTZCU would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.***

#### Analysis of Impacts

##### City-wide

#### **CARB Scoping Plan**

As discussed under Section 4.8.2, the 2017 Climate Change Scoping Plan is CARB's primary document used to ensure State GHG reduction goals are met. The plan identifies an increasing need for coordination among State, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. The major elements of the 2017 Climate Change Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal, are listed in Section 4.8.2. Nearly all of the specific measures identified in the 2017 Climate Change Scoping Plan would be implemented at the state level,

<sup>7</sup> The City of Berkeley, the first city in the nation to ban natural gas in new development, was sued by the California Restaurant Association for adopting such an ordinance. The lawsuit alleged, "Prohibiting natural gas cooking ranges, water heaters, fireplaces, space heaters, and backup electrical generation is fundamentally inconsistent with the public interest, and is a violation of both federal and state law." On July 6, 2021, the U.S. District Court for the Northern District of California issued its decision that the adoption of such an ordinance is not preempted by the U.S. Policy and Conservation Act; however, this decision is still subject to appeals. In addition, the state law claims were dismissed by the judge without prejudice, meaning that the plaintiffs (i.e., California Restaurant Association) may still bring the claims to state court.

with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. The GPTZCU, therefore, would have limited ability to directly conflict with any of the specific measures identified in the 2017 Climate Change Scoping Plan. Nonetheless, the overarching goal of the 2017 Climate Change Scoping Plan is to achieve a 40% reduction in GHG emissions below 1990 levels by the Year 2030. To achieve this statewide goal, the 2017 Climate Change Scoping Plan recommends a statewide efficiency metric of six metric tons per capita by 2030 and two metric tons per capita by 2050. These statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State. Under an unmitigated scenario, implementation of the proposed GPTZCU is estimated to result in a GHG emission efficiency of 9.62 MTCO<sub>2</sub>e per capita; with mitigation, the proposed GPTZCU is estimated to result in a GHG emission efficiency of 9.06 MTCO<sub>2</sub>e per capita.<sup>8</sup> GPTZCU growth would result in emissions that exceed the 2017 Climate Change Scoping Plan adjusted statewide 2040 metric of four MTCO<sub>2</sub>e per capita employed for this EIR.<sup>9</sup> To meet the interpolated CARB Scoping Plan efficiency target of four MTCO<sub>2</sub>e per capita, the City would need to further reduce its GPTZCU Year 2040 GHG emissions presented in Table 4.8-5 by an additional, approximately 340,605 MTCO<sub>2</sub>e.

### SCAG 2020 RTP/SCS

The primary goal of SCAG's 2020-2045 RTP/SCS is to reduce GHG emissions from automobiles and light trucks by 19% per capita by 2035. Table 4.8-6 (Transportation GHG Emissions and VMT Per Capita), below, compares the existing 2020 and 2040 VMT and transportation-related GHG emissions per capita in the Planning Area.

**Table 4.8-6  
Transportation GHG Emissions and VMT Per Capita**

<b>Metric</b>	<b>2020</b>	<b>2040 Growth</b>	<b>Percent Change</b>
GPTZCU Unmitigated VMT and Transportation GHG			
Population	46,918	60,808	30%
Annual VMT	1,179,620,586	1,210,449,901	3%
Annual VMT per capita	25,142	19,906	-21%
Transportation GHG	461,478	338,892	-27%
Transportation GHG per capita	9.8	5.6	-43%
Source: Fehr and Peers, 2021 and MIG, 2021 (see Appendix D)			

As shown in Table 4.8-6, under unmitigated 2040 conditions, the proposed GPTZCU would result in an approximately 21% reduction in VMT per capita and an approximately 43% reduction in transportation GHG per capita, as compared to 2020 conditions. Year 2005

<sup>8</sup> As shown in Table 4.8-4, the proposed GPTZCU is estimated to have an emissions level of approximately 585,021 MTCO<sub>2</sub>e in the Year 2040 under unmitigated conditions. Dividing through by the anticipated Planning Area population in the Year 2040 (i.e., 60,808 people) results in an efficiency metric of approximately 9.62 MTCO<sub>2</sub>e per capita. As shown in Table 4.8-5, the proposed GPTZCU is estimated to have an emissions level of approximately 583,837 MTCO<sub>2</sub>e in the Year 2040 under mitigated conditions. Dividing through by the anticipated Planning Area population in the Year 2040 (i.e., 60,808 people) results in an efficiency metric of approximately 9.62 MTCO<sub>2</sub>e per capita.

<sup>9</sup> The GPTZCU plans for growth through Year 2040. Therefore, the 2040 statewide efficiency metric is linearly derived from the State's 2030 (6 MTCO<sub>2</sub>e per capita) and 2050 (2 MTCO<sub>2</sub>e per capita) targets.

conditions are not known, but are presumed to have a higher (i.e., less efficient) per capita consumption value than 2020 conditions.

Although the GPTZCU would result in a per capita transportation GHG emission reduction that would exceed the 2040 goal identified by CARB (21% reduction in transportation GHG emissions per capita as compared to 2005 conditions), the GPTZCU would be inconsistent with the SCAG 2020 RTP/SCS because the growth envisioned in the GPTZCU exceeds the growth envisioned in the SCAG 2020 RTP/SCS. As shown in Table 4.3-6 of the Air Quality Section, the GPTZCU's growth exceeds the population growth assumptions contained in the SCAG 2016 RTP/SCS by approximately two-and-a-half times that accounted for in the SCAG 2016 RTP/SCS.

The GPTZCU's increase in population (approximately 12,059 people) in the City limits by 2040 also exceeds the 2020 RTP/SCS population growth assumptions for the City (+2,900 people from 2016 to 2045) by more than four times than that accounted for in the 2020 RTP/SCS growth assumptions; In addition, the GPTZCU's increase in employment in Planning Area (approximately 4,605 workers) is also in excess of the 2020 RTP/SCS employment growth assumption (+4,000 workers from 2016 to 2045). Since the growth envisioned in the GPTZCU is inconsistent with the conditions under which the SCAG 2020 RTP/SCS was developed, the additional, transportation-related GHG emissions generated as a result of GPTZCU implementation are anticipated to exceed that considered during development of the SCAG 2020 RTP/SCS. As such, the overall, per capita transportation GHG emission reductions that would need to be achieved by the GPTZCU would have to far exceed those originally identified for the region by CARB (i.e., more growth in the Planning Area means more emissions, therefore a greater reduction would have to occur in the city for the per capita transportation GHG emissions to meet the same mass emissions benchmark). This impact is **potentially significant**.

#### Key Opportunity Sites

As discussed under the Key Opportunity Sites' analysis in Impact GHG-1, there is insufficient detail regarding the way in which development activities at the sites would occur. While it is possible that development activities at the Washington Boulevard/Norwalk Transit-Oriented Development (TOD) and Metrolink TOD Opportunity Sites would be consistent with the 2020 RTP/SCS, it cannot be confirmed at this time that neither one of these sites, nor the other two (i.e., MC&C and Koontz sites), would be consistent with and not conflict with any plans, policies, or regulations adopted for the purposes of reducing GHG emissions. This impact is **potentially significant**.

#### Level of Significance Before Mitigation

##### City-wide

As discussed above the GPTZCU's unmitigated GHG emissions would not be consistent with the CARB Scoping Plan's interpolated per capita GHG efficiency metric. This is considered a **potentially significant** impact.

The GPTZCU's potential increase in population growth is over four times more than the assumed growth in the 2020 RTP/SCS, and the net employment growth would also exceed the growth assumed in the 2020 RTP/SCS. The GPTZCU would increase per capita mobile source GHG efficiency; however, the overall growth allowed for under implementation of the GPTZCU



would be substantially more than that planned for in the 2020 RTP/SCS. Although the City's proposed GPTZCU sets goals that are in line with the overarching goals of the 2020 RTP/SCS (e.g., locating housing near transit, working with transit providers to expand access / service, improving non-vehicular transportation infrastructure, etc.), the residential and non-residential growth (and associated VMT and GHG emissions) would be far greater than that accounted for in the 2020 RTP/SCS. This is considered a **potentially significant** impact.

#### Key Opportunity Sites

As discussed above, due to the speculative nature of development at the Key Opportunity Sites, it cannot be confirmed at this time that potential, future development activities at the Key Opportunity Sites would be consistent with and not conflict with any plans, policies, or regulations adopted for the purposes of reducing GHG emissions. This is considered a **potentially significant** impact.

#### Mitigation Measures

See Mitigation Measures AQ-2B through AQ-2E, GHG-1A, GHG-1B, and GHG-1C.

#### Level of Significance After Mitigation

##### City-wide

As discussed under Impact GHG-1, the proposed GPTZCU would be required to implement Mitigation Measures AQ-2B through AQ-2E, GHG-1A, GHG-1B, and GHG-1C which would reduce GHG emissions in the city. However, it cannot be confirmed at this time that the measure identified would reduce GHG emissions to levels that meet the interpolated GHG emissions efficiency metric of four MTCO<sub>2</sub>e per capita associated with the CARB 2017 Scoping Plan, and the residential growth and GHG emissions from the additional residents and employees would be far greater than that accounted for in the 2020 RTP/SCS. Therefore, the GPTZCU would conflict with the overarching goal of the CARB Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal and set the State's course for meeting additional, future GHG emission reduction goals, as well as the 2020 RTP/SCS because overall GHG mobile source emissions within the Planning Area would exceed that accounted for in the 2020 RTP/SCS' baseline assumptions. This impact would be **significant and unavoidable**.

#### Key Opportunity Sites

As described throughout this EIR analysis, future development activities at the Key Opportunity Sites would be required to implement Mitigation Measures AQ-2B through AQ-2E, GHG-1A, GHG-1B, and GHG-1C which would reduce GHG emissions; however, due to the uncertainties regarding the nature of project-specific development proposals at the Key Opportunity Sites, it cannot be confirmed at this time that potential, future development activities at the Key Opportunity Sites would be consistent with and not conflict with any plans, policies, or regulations adopted for the purposes of reducing GHG emissions. Compliance with Mitigation Measure GHG-1C would require a project-specific analysis be prepared to evaluate consistency with plans, policies, and regulations adopted for the purposes of reducing GHG emissions and, if the project is shown to be inconsistent with any of those items, identify mitigation to reduce the magnitude of the impact. Despite the provisions incorporated herein, this impact would be **significant and unavoidable**.

## Cumulative Impacts

***Would the GPTZCU cause substantial adverse cumulative impacts with respect to greenhouse gases?***

### Analysis of Impacts

#### City-wide

As stated at the beginning of Section 4.8.4, global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described under Impact GHG-1 and GHG-2, the GPTZCU would result in GHG emissions that exceed the significance thresholds applied in this EIR and conflict with the 2017 Climate Change Scoping Plan and 2020 RTP/SCS.

#### Key Opportunity Sites

As stated at the beginning of Section 4.8.4, global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described under Impact GHG-1 and GHG-2, future development activities at the Key Opportunity Sites could result in GHG emissions that are inconsistent with state-wide GHG emission reduction goals and/or conflict with plans, policies, or regulations for the purposes of reducing GHG emissions.

### Level of Significance Before Mitigation

#### City-wide

**Potentially Significant.**

#### Key Opportunity Sites

**Potentially Significant.**

### Mitigation Measures

#### City-wide

See Mitigation Measures AQ-2B through AQ-2E, GHG-1A, GHG-1B, GHG-1C.

#### Key Opportunity Sites

See Mitigation Measures AQ-2B through AQ-2E, GHG-1A, GHG-1B, GHG-1C.

### Level of Significance After Mitigation

#### City-wide

**Significant and Unavoidable.**

Key Opportunity Sites

**Significant and Unavoidable.**

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<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym, Symbol, Abbreviation</b>	<b>Description</b>
AB	Assembly Bill
ACC	Advanced Clean Cars
BAU	Business-As-Usual
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CFC	Chlorofluorocarbon
C <sub>H4</sub>	Methane
CNRA	California Natural Resources Agency
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
EIR	Environmental Impact Report
EO	Executive Order
EV	Electric Vehicle
GHG	Greenhouse Gases
GPFZCU	General Plan and Focused Zoning Code Update
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
HQTA	High Quality Transit Area
IAQ	Indoor Air Quality
LCFS	Low Carbon Fuel Standard
LEV	Low-Emission Vehicle
NMA	Neighborhood Mobility Area
MMBTU	Million British Thermal Units
MPO	Metropolitan Planning Organization
MTCO <sub>2</sub> e	metric tons of CO <sub>2</sub> equivalents
MWh	Megawatt-hours
N <sub>2</sub> O	Nitrous Oxide
PGA	Priority Growth Area
PFC	Perfluorocarbon

Ppm	parts per million
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SF <sub>6</sub>	Sulfur Hexafluoride
SOI	Sphere of Influence
SP	Service Population
TDM	Transportation Demand Management
TPA	Transit Priority Area
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Travelled
Working Group	SCAQMD GHG Significance Threshold Working Group
ZEV	Zero Emission Vehicle
ZNE	Zero Net Energy
°F	Degrees Fahrenheit
%	Percent

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## 4.9 – Hazards and Hazardous Materials

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This EIR chapter addresses hazards and hazardous materials impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are hazards and hazardous materials impacts identified by the CEQA Guidelines: whether the GPTZCU will create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; will create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; will emit hazardous emissions or handle hazardous materials within close proximity of existing or planned schools will be located on a site which is included on a list of hazardous materials sites; will result in a safety hazard or excessive noise from a nearby airport; will impair implementation or physically interfere with an adopted emergency response plan or evacuation plan; or will expose people or structures to significant risks from wildfire.

### 4.9.1 – ENVIRONMENTAL SETTING

Hazardous materials (hazmat) are substances or chemicals that are capable of having a harmful effect on human health or the environment. Hazardous materials are used in everyday activities from painting houses to fueling cars. Facilities that transport, generate, or treat hazardous waste must report their activities to the California and U.S. Environmental Protection Agency (EPA) and comply with waste management standards.

#### Oil Wells

Union Oil of California first drilled two dry holes in 1919 before hitting a successful oil well on its third attempt in 1921. Within a year, the Santa Fe Springs oil field was considered one of the richest pools in petroleum history, and the City became a promoters' paradise. In its peak during the 1920s, the oilfield produced as much as 60,000 barrels daily. By 1924, 81 million barrels of oil had been pumped from the ground. Since 1977, more than 40 different providers have maintained wells in the Santa Fe Springs oilfield; however, the only active operator currently is E&B Natural Resources. Active oil wells (wells still extracting oil) are located in the central and eastern portions of the oil field, occupying approximately 10 city blocks, or 784 acres, as illustrated in Exhibit 4.9-1 (Oils Wells). Idle wells are oil and gas wells which are not in use for production, injection, or other purposes but also have not been permanently sealed, as shown in Table 4.9-1 (Oil Wells (2020)). Over 1,000 oil wells have been plugged in the City since the 1920s. A well is plugged by setting mechanical or cement plugs in the wellbore at specific intervals to prevent fluid flow.

**Table 4.9-1  
Oil Wells (2020)**

Oil Wells	City	Sphere of Influence	Total
Active	221	7	228
Idle	88	0	88
Plugged	1,093	21	1,114
<b>Total</b>	<b>1,402</b>	<b>28</b>	<b>1,430</b>

Source: California Department of Conservation, Geologic Energy Management Division, 2020.



## Hazardous Waste

Hazardous waste can be generated from many sources, such as construction, vehicle maintenance, industrial manufacturing, household cleaning, and service businesses, like landscaping and dry cleaning. The EPA's Toxics Release Inventory (TRI) Program manages a database of facilities that emit toxic chemicals and tracks hazardous waste transporters. The State of California divides hazardous waste generators into two categories: Small Quantity Generators (SQGs), which generate between 220 and 2,200 pounds of non-acute hazardous waste per month; and Large Quantity Generators (LQGs), which generate 2,200 pounds or more of non-acute hazardous waste per month. Transporters move hazardous waste to a facility that can recycle, treat, store, or dispose of the waste. Hazardous waste can be transported by air, rail, highway, or water. Many hazardous wastes can be recycled safely and effectively, while other wastes must be treated and disposed of in landfills or incinerators. As noted in Table 4.9-2 (Hazardous Waste Generators (2020)) and depicted on Exhibit 4.9-2 (Hazardous Waste Generators), the Toxic Release Inventory identified generators, transporters, transfer facilities, and other hazardous waste facilities within the Planning Area.

**Table 4.9-2  
Hazardous Waste Generators (2020)**

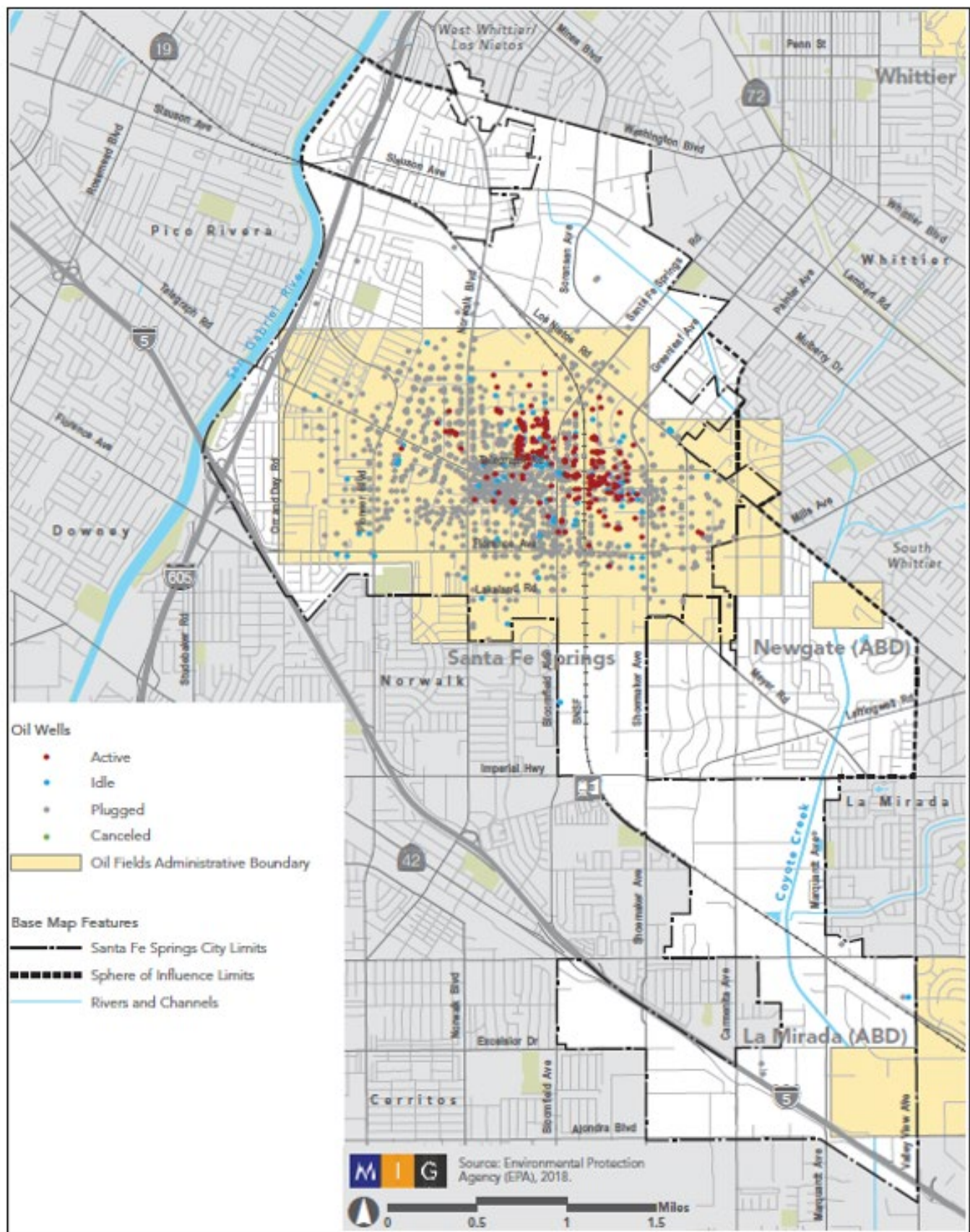
Oil Wells	Number of Businesses		
	City	Sphere of Influence	Total
Small Quantity Generator	322	18	340
Large Quantity Generator	61	2	63
Transfer Facilities	2	0	2
Transporter	293	20	313
Treatment, Storage, and/or Disposal	1	0	1
Other Hazardous Waste Facilities	6	0	6
<b>Total</b>	<b>685</b>	<b>40</b>	<b>725</b>

Source: Environmental Protection Agency (EPA), Resource Conservation and Recovery Act, 2018

## Contaminated Sites

The federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), informally known as Superfund, allows the EPA to clean up contaminated sites by assigning liability and ensuring responsible parties either remediate the site or reimburse the government for EPA-led efforts. When no viable responsible party can be identified, Superfund allocates the public funds to the EPA for remedial action of contaminated sites. As shown in Exhibit 4.9-3 (Hazardous Waste Contamination Sites), the City has 10 registered Superfund sites, **Leaking Underground Storage Tanks**

Underground storage tanks are used to store petroleum and other hazardous materials. Leaking underground storage tanks (LUST) can contaminate surrounding soil, groundwater, or surface waters. Once the leak is registered and confirmed, immediate response actions must be taken to minimize or eliminate the source of the release and to reduce the potential harm to human health, public safety, and the environment. Four LUST sites have been reported in Santa Fe Springs, as shown in Exhibit 4.9-3.



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## Exhibit 4.9-1 Oil Wells

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

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## **Hazardous Waste and Substances Site List**

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency (Cal EPA) to develop at least annually an updated Cortese List.

The California Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB) and other State and local government agencies are responsible for the information contained in the Cortese List.

The Cortese list consists of:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database
- List of Leaking Underground Storage Tank Sites from the State Water Board's GeoTracker database
- List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC

61 sites are included in the DTSC EnviroStor database, 6 of which are active, 11 are certified or permitted, 7 are closed, 7 are inactive with further action required, 11 require no further action, and the remainder are referred to another agency.

There have been 153 Leaking Underground Storage Tanks (LUST) sites identified on the list as shown by SWRCB's GeoTracker database. Currently, only two are open cases requiring closure or remediation.

No sites in the City are on the Cal EPA list of solid waste disposal sites with waste constituents above hazardous waste levels or on the required Cease and Desist Orders and Cleanup and Abatement Orders list.

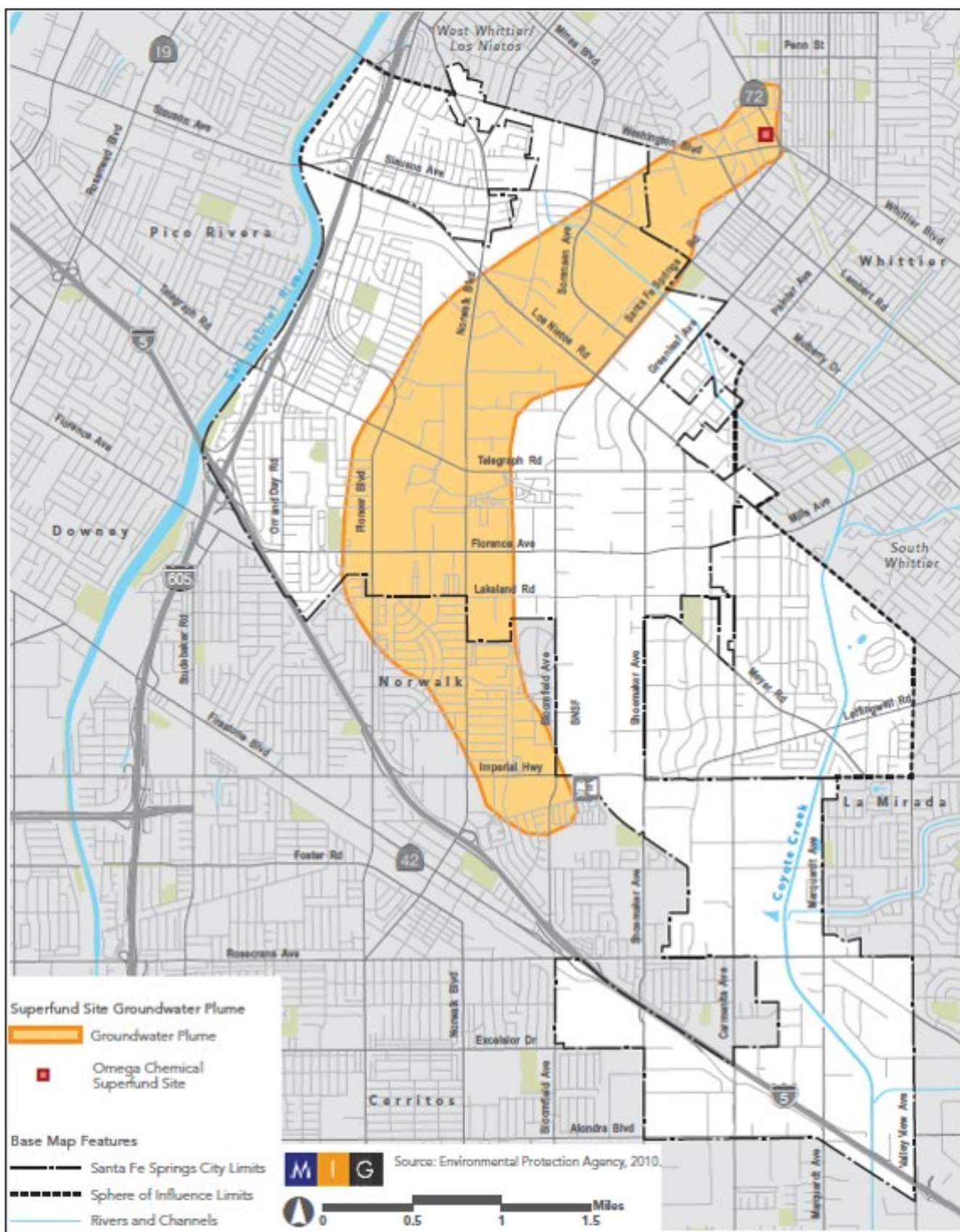
Currently one site (included in the 61 DTSC EnviroStor sites): Sonic Plating Co. Inc., is listed as being subject to corrective action, as required by Section 25187.5 of the Health and Safety Code.

## **Superfund Site Groundwater Plume**

The Omega Chemical Corporation was a refrigerant and solvent recycling company that operated in the City of Whittier between 1976 and 1991. As a result of business operations, spills and leaks of various chemicals contaminated the soil and groundwater beneath the facility with high concentrations of tetrachloroethene (PCE) and trichloroethene (TCE). Prolonged exposure to these chemicals has been proven to cause severe long-term health effects. As shown in Exhibit 4.9-4 (Contaminated Groundwater Plume), these chemicals have contaminated the groundwater and migrated southwest, creating a large plume beneath the City and surrounding region, including the cities of Norwalk and Whittier.



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# **Exhibit 4.9-4 Contaminated Groundwater Plume** **Santa Fe Springs General Plan and Targeted Zoning Code Update** Santa Fe Springs, California

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In 1995 and 1996, the EPA oversaw initial cleanup activities at the former Omega Chemical Corporation site, including the removal of approximately 3,000 drums of hazardous waste and excavation and removal of grossly contaminated near-surface soil. In 1999, the EPA placed this site on its Superfund National Priorities List.

In 2011, the EPA selected an interim remedial action to contain the large plume of contaminated groundwater at the Omega Chemical Corporation Superfund Site. The selected remedy is an interim action to contain the plume of contaminated groundwater. The overall objective of the interim remedial action is to protect human health and the environment by preventing further spreading of the contaminated groundwater to as-yet uncontaminated portions of the aquifer and nearby production wells.

The City of Santa Fe Springs has shut down water production wells due to high contamination levels in the groundwater beneath the City. In 2017 and 2018, 53 groundwater monitoring wells were constructed to provide data needed to design a regional groundwater cleanup system. As of 2020, work to address contaminated groundwater and design of the regional groundwater cleanup system is ongoing.

### **Key Considerations**

Santa Fe Springs welcomed a booming oil industry after Union Oil discovered a gusher in 1921. During the 1920s, oil production peaked at a rate of 60,000 barrels a day. Production levels have declined over time, as the Santa Fe Springs Oil Field has matured. The City will continue to account for the presence of former wells in its land planning and decisions due to contamination issues associated with years of oil production.

The largely industrial economy contributes to the high number of hazardous waste generators and transporters in the City.

Superfund cleanups restore value to property and benefit surrounding communities. The Waste Disposal, Inc. Superfund cleanup efforts provided over 160 jobs and about \$9.5 million in annual employee income, while neighboring businesses remained open during and after cleanup. This case study may be used to motivate the public and guide future Superfund efforts at nearby sites.

The Omega Chemical Corporation Superfund Site located in the City of Whittier has contaminated the groundwater in Whittier and neighboring areas, including Santa Fe Springs, resulting in the closure of water supply production wells.

### **Airport Hazards**

The Fullerton Airport is located approximately 10.6 miles southeast of the Planning Area and El Monte Airport is located approximately 13.9 miles north of the center of the Planning Area. The GPTZCU area does not fall within the Planning Boundary/Airport Influence Area for either airport (Department of Regional Planning, 2004).

## Wildfire Hazards

According to the CALFIRE Fire Hazard Severity Zone Maps, the Planning Area is not located in an area of high fire threat (CALFIRE, 2020). Because Santa Fe Springs is an urbanized community, structural fires rather than wildland fires represent the greatest fire risk in the Planning Area.

### 4.9.2 – REGULATORY FRAMEWORK

#### Federal

**U.S. Environmental Protection Agency (EPA).** Regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA, see below) and integrates the Federal Clean Water Act and Clean Air Act into California Legislation.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).** Adopted in 1980, CERCLA was developed to remove contamination of water, air, and land resources from past chemical disposal practices. Also known as the “Superfund Act,” CERCLA contains a list of sites referred to as Superfund sites, where there is an imminent threat to human health. CERCLA collects taxes from the chemical and petroleum industries to clean abandoned or uncontrolled hazardous sites using short term and long-term techniques.

**The Resources Conservation and Recovery Act (RCRA).** Federal law that regulates hazardous wastes from a ‘cradle-to-grave’ approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal, and waste generators are required to report use or transport of hazardous wastes to the EPA. Hazardous waste generators range from small producers such as dry cleaners and automobile repair facilities to larger producers such as hospitals and manufacturing operations. The EPA categorizes Small Quantity Generators (SQG) as those facilities that produce between 100 and 1,000 kilograms (kg) of hazardous waste per month. Facilities producing less than 100 kg of hazardous waste per month are not subject to RCRA. Large Quantity Generators (LQG) produce 1,000 kg or more hazardous waste per month. LQG and SQG facilities are subject to the storage and transportation requirements of RCRA.

**The Federal Emergency Planning and Community Right-To-Know Act (EPCRA).** Enacted to inform communities and residents of chemical hazards in their area, this Act requires the US EPA maintain and publish a list of toxic chemical releases, known as the Toxic Release Inventory (TRI). Facilities required to report include industrial uses that manufacture, process, or use significant amounts of chemicals. Reporting includes types and amounts of chemicals that are released each year into the air, water, and land or transferred off-site. Listing as a TRI facility doesn’t necessarily mean that releases are harmful to humans or the environment.

**Federal Occupational Safety and Health Administration (OSHA).** Establishes and enforces Federal regulations related to health and safety of workers exposed to toxic and hazardous materials. OSHA also sets health and safety guidelines for construction activities and manufacturing facility operations.

**U.S. Department of Transportation (DOT).** Regulates the shipment of hazardous material. DOT also administers the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify conflicting state, local, and federal regulations. HMTUSA requires the Secretary of

Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous (along with EPA) when they pose unreasonable risks to health, safety, or property.

**Standardized Emergency Management System and National Incident Management System (SEMS).** According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander.

## State

**California Occupational Safety and Health Administration (CalOSHA).** Responsible for promulgating and enforcing State health and safety standards and implementing Federal OSHA Laws. For example, CalOSHA's regulatory scope includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

**California Environmental Protection Agency (Cal EPA).** The Cal EPA implements and enforces a statewide hazardous materials program known as the Certified Unified Program Agency (CUPA) established by Senate Bill 1802 to enable counties and local government to enforce the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

CUPAs are accountable for carrying out responsibilities previously handled by approximately 1,300 different state and local agencies.

**CalEPA Office of Emergency Services (CalEPA/OES).** Cal/EPA establishes regulations governing the use of hazardous materials in the State to protect air, water, and soil. OES coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies.

**CALFIRE, Office of the State Fire Marshal (CAL FIRE-OSFM).** The Office of the State Fire Marshal evaluates and provides technical assistance for the Hazardous Material Management Plan (HMMP), the Hazardous Materials Inventory Statement (HMIS) and the Aboveground

Petroleum Storage Act (APSA) Programs. The HMMP and HMIS Program are closely tied to the Business Plan Program.

**California Fire Code.** The City has adopted the the most current version of the California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. specifications for exterior materials and construction methods for structures located in the wildland-urban interface (WUI). These regulations pertain to any new building located within a Local Agency ‘Very High Fire Hazard Severity Zone’ or within a State Responsible ‘Moderate’, ‘High’, or ‘Very High Fire Hazard Severity Zone’.

**California Hazardous Waste Control Law.** The California Hazardous Waste Control Law is administered by the California EPA to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than RCRA, until the federal EPA approves the California Hazardous Waste Control Program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills. The California Code of Regulations (CCR) 22 CCR Section 66261.10 provides that waste has “hazardous” characteristics if it has the following effects: [a](1) a waste that exhibits the characteristics may: (A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed or otherwise managed.

According to 22 CCR (Article 11, Chapter 3), substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, contaminated, or are being stored prior to proper disposal. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric (battery) acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which reacts violently with water) may cause explosions or generate gases or fumes.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as “mixed wastes.” Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents, such as bacteria or viruses (22 CCR 66251.1 et seq.).

**California Department of Toxic Substances Control (DTSC).** DTSC regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns the public that could potentially be exposed to listed carcinogens. DTSC evaluates and provides technical assistance for the Hazardous Waste Generator Program, including Onsite Treatment (Tiered Permitting) and the Resource Conservation Recovery Act (RCRA). In addition, EnviroStor is DTSC's data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. There are no open investigations in the planning area (DTSC Envirostor).

**Underground Tank Regulations.** Title 23, Division 3, Chapter 16 (Underground Tank Regulations) of the California Code of Regulations identifies the regulations applicable to new and existing underground storage tanks. These regulations establish monitoring, maintenance, reporting, abatement, and closure procedures for all underground storage tanks in the state. These regulations are administered by the Los Angeles Regional Water Quality Control Board.

**California Highway Patrol (CHP).** The CHP has primary regulatory responsibility for the transportation of hazardous wastes and materials.

**Cortese List.** California Government Code Section 65962.5 established the "Cortese List", which requires state agencies to compile a list of all properties affected by hazardous waste and develop a framework for how they will continue to be monitored and addressed by the State. A site's presence on the list has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). This statute was enacted over 20 years ago, and some of the provisions refer to agency activities that are no longer being implemented and in some cases the information to be included in the Cortese List does not exist.

**California Porter Cologne Water Quality Control Act.** Division 7 of the California Water Code (Water Code) identifies the enforcement and implementation rights of the Regional Water Quality Control Board to remedy discharges to surface waters or groundwater that would or could violate water quality standards. Standard remedies include issuance of Cease and Desist Orders and cleanup and abatement procedures.

**Code of Regulations Title 22.** Title 22 of the California Code of Regulations contains all applicable State and Federal laws governing hazardous wastes in the State. Title 22 is more stringent and broader in its coverage of wastes than Federal law. Chapter 51 (Site Remediation) identifies the minimum standards of performance for site investigations and response actions performed by the private sector in site cleanup efforts.

Hazardous waste is any waste with properties that make it potentially dangerous or harmful to human health or the environment. Hazardous waste is defined in one of two ways. Waste is considered hazardous if it appears on one of the five lists created pursuant to the Federal Resource Conservation Recovery Act (RCRA). The lists are known as the F-, K-, P-/U-, and M-lists and reflect non-specific source waste, source-specific waste, discarded commercial chemical products, discarded mercury-containing products, respectively. A waste may also be categorized as hazardous if it exhibits one of the four characteristics of hazardous materials: ignitability, corrosivity, reactivity, and toxicity. Because of its toxicity, solid wastes containing certain levels of lead are considered hazardous and must be handled, transported, and disposed of in accordance with Federal and State law. In California, two thresholds have been established by State regulation to determine if a waste is hazardous due to its lead content. The



Total Threshold Limit Concentration (TTLC) establishes a threshold of 1,000 milligrams (mg) of lead per one kilogram (kg) of waste. The Soluble Threshold Limit Concentration (STLC) establishes a threshold of 5 mg of lead per liter (L) of waste extract solution. Hazardous Waste must be disposed of at Class I landfills that are specifically designed to accept hazardous waste.

**California Asbestos Standards in Construction.** The California Division of Occupational Safety and Health (Cal/OSHA) enforces the California Asbestos Standards in Construction (8 CCR Section 1529). These standards regulate exposure to asbestos in all construction work including demolition of structures. These regulations establish entry and exit procedures after working in asbestos contaminated areas and establish specific control measures designed to protect workers depending on the type of asbestos they are handling. Such procedures include minimum air circulations, use of respirators, wetting of materials, clothing laundering, construction and demolition equipment requirements, and shielding specifications. Notification procedures are also in place that require building owner and employee noticing as well as external and internal hazard signage. All asbestos workers are required to complete training programs and register as an asbestos contractor, depending on the type of asbestos being removed. Medical examination requirements are also required to monitor worker health, generally on an annual basis.

**California Construction Safety Orders for Lead.** Title 8, Section 1532.2 (Lead) of the California Code of Regulations establishes the requirements for any construction worker who may be exposed to lead during demolition or salvage, removal or encapsulation, new construction, and cleanup activities. The construction safety orders establish an action level of 30 micrograms of lead per cubic meter ( $\mu\text{g}/\text{cm}^3$ ) of air calculated over an 8-hour time-weighted average without regard for the use of a respirator, meaning this is the limit where safety protocols must be initiated, such as use of a respirator. Under no circumstance may a worker be exposed to 50  $\mu\text{g}/\text{cm}^3$  over an 8-hour weighted period. These regulations require implementation of engineering and work practice controls such as respiratory protection, protective clothing, housekeeping, hygiene practices, and signage requirements to meet worker exposure limits. Medical monitoring and training requirements are also identified.

**Assembly Bill 2948.** In response to the growing statewide concern of hazardous waste management, State Assembly Bill 2948 (Tanner 1986) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within its jurisdiction.

**Hazardous Materials Business Plan (CERS Annual Submittal).** In 1986, the California Governor's Office of Emergency Services (Cal OES) established the Hazardous Materials Business Plan (HMBP) Program, which prevents or minimizes damage to the public and the environment from a release of hazardous materials. Under the Program, California businesses that handle hazardous materials were required to submit an HMBP each year. Assembly Bill 1429, which was passed on July 9, 2019, requires a business with a facility that is not required to submit Tier II information pursuant to the above-mentioned federal provision and is not subject to the provisions governing those aboveground storage tanks to submit its business plan once every three years, instead of annually. However, the Los Angeles County Code of Ordinance, Section 12.64.030 still requires all hazardous materials handlers operating under the jurisdiction of Los Angeles County must electronically certify, or submit an updated HMBP, including the hazardous materials inventory, site map, contingency plan, and the employee

training plan information via the Statewide information management system which is also known as the California Environmental Reporting System (CERS).

**Emergency Services Act.** Under the Emergency Services Act, the State of California developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered by the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including the EPA, California Highway Patrol, Regional Water Quality Control Boards, Air Quality Management Districts, and county disaster response offices.

**The Emergency Planning Community Right-to-Know Act.** The Emergency Planning Community Right-to-Know Act requires facilities to disclose to the State and Local Emergency Planning Committee the quantities and type of toxic chemicals stored. To avoid multiple reports to various agencies, the California Health and Safety Code requires notification of chemical inventory to the Administering Agency (DTSC). Notification of chemical inventory is accomplished through completion of a Hazardous Materials Business Plan and inventory.

## **Regional**

**Regional Water Quality Control Board (RWQCB).** One of nine regional boards in the State, the Los Angeles Regional Water Quality Control Board (RWQCB) protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the Waters of the State. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks and other sources of groundwater contamination.

**Los Angeles County Airport Land Use Commission.** The main goal of the Airport Land Use Commission (ALUC) is to protect the public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to extensive noise and safety hazards within areas around airports.

**South Coast Air Quality Management District (SCAQMD).** The SCAQMD regulates the demolition of buildings and structures that may contain asbestos. The SCAQMD is vested with the authority to regulate airborne pollutants through both inspection and law enforcement and shall be notified 10 days in advance of any proposed demolition or abatement work.

**South Coast Air Quality Management District Rule 1403.** Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) specifies work practices to limit asbestos emissions from building demolition and renovation activities including the removal and disturbance of asbestos containing material (ACM). This rule is generally designed to protect uses surrounding demolition or renovation activities from exposure to asbestos emissions. Rule 1403 requires any facility being demolished or renovated for the presence of all friable and Class I and Class II non-friable ACM. Rule 1403 also establishes notification procedures, removal procedures, handling operations, and warning label requirements.

**Environmental Site Assessment (ESA) Procedures.** A Phase I ESA is the initial investigation phase of a process established by the American Society for Testing and Materials Standards (ASTM), as adequate due diligence by new purchasers of properties or their lenders prior to site development. Phase I ESAs must be completed prior to property development by private parties to establish that the buyer has exercised due diligence in purchasing the site. If a Phase I ESA

indicates evidence of site contamination, a Phase II ESA would be required prior to site development. The Phase II ESA includes collection of original samples of soil, groundwater, or building materials to measure and analyze quantities of various contaminants. The most frequent substances tested for are petroleum hydrocarbons, heavy metals, pesticides, solvents, asbestos, and mold. Appropriate cleanup levels for each contaminant, based on current and planned land use, would be determined in accordance with professional procedures adopted by the lead agency (e.g., DTSC, RWQCB, SCAQMD, CUPA).

## County

**Los Angeles County Fire Department (LACFD), Certified Unified Program Agency (CUPA).** The LACFD Health Hazardous Materials Department is a CUPA under the state that administers the following programs within Los Angeles County; the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the California Accidental Release Prevention Program (Cal-ARP), the Aboveground Storage Tank Program and the Underground Storage Tank Program. CUPAs and Program Agencies (PAs) throughout the state created a partnership and formed the California CUPA Forum. Together, members of the California CUPA Forum and representatives of local, state and federal agencies established the Unified Program Administration and Advisory Group (UPAAG) to effectively address policy decisions, training and problem solving. The UPAAG's goals and objectives are listed in the UPAAG Strategic Plan. The Unified Program consolidates the administration, permit, inspection, and enforcement activities of the following environmental and emergency management programs:

- Aboveground Petroleum Storage Act (APSA) Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- Hazardous Material Management Plan (HMMP) and Hazardous Material Inventory Statements (HMIS) (California Fire Code)
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- Underground Storage Tank Program

State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency and providing technical assistance to CUPAs and PAs.

**Multi-Hazard Functional Plan.** The County's Multi-Hazard Functional Plan addresses the planned response to extraordinary emergency situations associated with natural and human caused disasters, technological incidents, and national security operations. Individuals and departments assigned emergency responsibilities within this plan will have prepared appropriate supporting plans and related Standard Operating Procedures.

**Health Hazardous Materials Division.** In May 1982, the Los Angeles County Board of Supervisors established the Hazardous Materials Control Program in the Department of Health Services. The program focuses on inspection of businesses that generate hazardous waste,

hazardous materials inspections, criminal investigations, site mitigation oversight, and emergency response operations. On July 1, 1991, the program was transferred to the Fire Department's Health Hazardous Materials Division (HHMD). The HHMD's mission is to protect the public health and the environment throughout Los Angeles County from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight.

**Unified Hazardous Waste and Hazardous Materials Management Regulatory Program.**

The Los Angeles County Fire HHMD administers the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program for the City of Santa Fe Springs. Senate Bill 1082 (1993) established the "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program." The Unified Program consolidates, coordinates, and standardizes the following hazardous materials and hazardous waste programs (Program Elements):

- Hazardous Waste Generation (including onsite treatment under Tiered Permitting);
- Aboveground Petroleum Storage Tanks (only the Spill Prevention Control and Countermeasure Plan or "SPCC");
- Underground Storage Tanks (USTs);
- Hazardous Material Release Response Plans and Inventories;
- California Accidental Release Prevention Program (Cal ARP); and
- Uniform Fire Code Hazardous Material Management Plans and Inventories.

**Household Hazardous and E-Waste Program.** The Sanitation Districts of Los Angeles County have established the Household Hazardous and Electronic Waste (E-Waste) Collection Program to provide County residents a legal and cost-free way to dispose of unwanted household chemicals that cannot be disposed of in the regular trash. The Household Hazardous and E-Waste Program allows residents to dispose of the following household chemicals and E-Waste.

- Household Chemicals
- Motor oil, oil filters, brake fluid
- Used antifreeze
- Paint, paint thinner, turpentine
- Cleaners with acid or lye
- Pesticides or herbicides
- Household batteries or car batteries
- Pool chemicals
- CRTs, old TVs, misc. electronics
- Mercury thermometers or thermostats
- Fluorescent light bulbs

- Used needles or sharps (In a Sharps container or sturdy box labeled "SHARPS")
- Unwanted or expired prescriptions

LA Sanitation (LASAN) has established permanent collection sites throughout the County known as S.A.F.E. Centers (Solvents/Automotive/Flammables/Electronics).

## **Local**

**General Plan.** The existing 1994 Santa Fe Springs General Plan contains the following goals and policies related to hazards and hazardous materials:

### **Goals**

5.1 Work with relevant regulatory agencies to secure commitments from existing fire risk sources to retrofit for code compliance and to fully utilize current fire resistance technologies for risk reduction.

5.2 Encourage the development of improved public and private sector fire insurance.

5.3 Maintain an aggressive weed abatement program.

5.4 Aggressively promote smoke detector systems in both residential and business uses.

6.1 Continue to protect the Santa Fe Springs community from the loss of life and property from fire damage. This includes the goal of keeping fire loss costs within the community to an absolute minimum.

6.2 To reduce the adverse economic, environmental, and social impacts of fire on the community.

6.3 To provide effective fire prevention services through the proactive review of proposed and existing land uses, with particular focus on high level fire exposures.

6.4 Within reasonable resource expenditures, maintain the highest possible ISO rating for the City and its Fire Department.

6.5 Give the highest of planning priorities to safety standards in the acquisition and maintenance of fire suppression facilities and equipment.

6.6 Continue to seek technological and information system advances which will enhance the efficiency and effectiveness of the Fire Department.

6.7 Continue to develop the Incident Command System (ICS) to seek the highest levels of intra-city and inter-agency coordination of fire scene operations.

6.8 Review the City's Water Master Plan to assure the continued integrity of the peak water flow requirement, including potential acquisition of other purveyors within the City.

6.9 Continue to seek greater private sector involvement in both the prevention of fires and suppression of such through the creation of "fire brigades."

7.1 Continue to support legislative activity at the federal and state level which strengthens management of these hazards and which gives the City greater authority to coordinate the handling of such.

7.2 Support efforts by the State Water Resources Control Board to seek full disclosure of under and above ground storage tank leaks, including both the existence and extent of these leaks, and their impact on the water table.

7.3 Continue to expand the City's consolidated database on the variety of hazardous materials and chemical-based risks within the City thereby enhancing the access to the database by all field public safety and fire personnel.

7.4 Encourage the designation of hazardous material transportation routing through corridors thereby reducing public risk to a minimum. Encourage such action both formally and informally.

7.5 Develop programs or promote the availability of activities which allow for the disposal of small quantities of hazardous material by small users, both household and industrial.

8.1 Keep hazardous materials response staff training and equipment current with the changing nature of the hazardous material risks in the City.

8.2 Apply in 1995 to the State of California to become the "Certified Unified Administering Agency" for consolidated management of the Hazardous Materials Business Plan, Risk Management Prevention Plan, Hazardous Waste, Aboveground and Underground Tank Programs.

8.3 Continue to develop public/private partnerships to disclose, manage, and respond to risks associated with hazardous materials uses.

8.4 Continue to promote the development of regional resources, including trained staff/responders and equipment, for the management of hazardous materials incidents.

12.1 Continue to develop more effective systems for seeking community input on areas of code enforcement needs and development.

12.2 Support actions at all levels of government to streamline regulatory administration without compromising, at the local level, the effectiveness of the mitigation actions.

12.3 Work to cross-train its staff in the basic elements of each of the standards systems described herein in an effort to maximize efficiency and effectiveness and to decrease the bureaucratic burden upon the public.

12.4 Identify potential public safety hazards through code enforcement and inspection activities, and require or encourage mitigation actions depending on the severity of the hazard. Give priority to retrofitting of facilities and equipment.

12.5 Code inspectors, fire safety, and police services staff should encourage businesses and residents to assist in reducing community risks by becoming involved in the volunteer Business and Safe Neighborhood Teams as described in Section 4 of the Safety Element.

12.6 Review of all development projects having public safety risk impacts, including crime and traffic, by staff in all potentially impacted City departments.

12.7 Give priority to the development of new approaches and technologies to "harden commercial targets" from the impacts of crime and incorporate these into City development codes.

12.8 Assess ability to assume some authority from other regulatory agencies as those agencies become adversely impacted by fiscal limitations.

### ***Policies***

5.1 Continue to work with relevant regulatory agencies to seek compliance by urban fire sources with current development and operations standards.

5.2 Continue to use redevelopment as a tool to reduce the number of urban fire hazard structures and systems.

5.3 Review all new development in regards to urban fire risks.

5.4 The land use planning processes will continue to review the density of structures and population as potential fire risks and consider such in development plan approval.

6.1 Maintain the City's standards for fire flows and emergency response vehicle access.

6.2 The City will continue to provide the finest fire protection and paramedic services at the lowest cost commensurate with adequate community protection.

7.1 Through the planning process, balance the interests of economic development with hazardous exposures associated with chemical and hazardous material land uses.

7.2 Continue to monitor the City's performance in meeting the waste stream goals contained in the City's Hazardous Waste Management Plan

7.3 Assure compliance, through inspection, of all requirements regarding the posting of permits, placards, and disclosure statements related to the storage, use, and transportation of hazardous materials.

8.1 Within reasonable resource expenditures, the City is committed to providing sufficient emergency response capabilities to minimize the threats to personal injury, loss of life, and property due to hazardous materials incidents.

12.1 Continue to be proactive in the development, administration and enforcement of standards which will protect the community from serious public safety hazards.

12.2 Continue to give highest priority to code development and enforcement in the areas of structural, hazardous material, seismic, fire safety, crime, traffic, property maintenance, waste stream, and environmental hazards.

12.3 Give particular attention to fire, seismic, and structural code enforcement in critical facilities as identified in Section 11 of the Safety Element.

12.4 In support of emergency response vehicles and personnel, review and enforce standards for sufficiency of signage and location numbering systems.

### **2021 General Plan Update**

The proposed GPTZCU contains the following goals and policies related to hazardous materials and other hazards:

#### *Land Use Element*

#### **Goal LU-3: Clean Industrial Businesses.**

**Policy LU-3.1: Hazardous Uses.** Regulate and monitor uses that use, store, produce, or transport toxic substances, unhealthy air emissions, and other pollutants or hazardous materials.

**Policy LU-3.2: Appropriate Siting.** Site heavy industrial, large warehouses, and trucking and logistics in areas where the location and roadway pattern will provide minimal impacts on residential and commercial uses.

**Policy LU-3.3: Freight and Industrial Green Technology.** Encourage technological solutions to reduce pollutants and airborne emissions associated with rail and road freight transport and other industrial operations.

**Policy LU-3.4: Repurpose Petroleum Production Lands.** Encourage the remediation and development of properties transitioning from petroleum production.

**Policy LU-3.5: Oil Fields.** Encourage efficient and compatible methods for extracting the remaining petroleum resources and the removal of unused oil field equipment and storage facilities.

**Policy LU-3.6: Environmental Preservation of Oil Field Sites.** Monitor and ensure that efficient and environmentally sound techniques are used in abandoning oil field sites.

**Policy LU-3.7: Contaminated Land Remediation.** Encourage the proper cleanup and remediation of lands that are contaminated, prioritizing cleanup near and within disadvantaged communities.

**Policy LU-3.8: Green Industrial Operations.** Encourage industrial businesses to utilize green building strategies, green vehicle fleets, energy-efficient equipment, and support renewable energy systems.

#### *Safety Element*

**Goal S-3: Minimized exposure of residents, businesses, and habitats to hazardous materials and their deleterious effects.**

**Policy S-3.1: Hazardous Waste Siting.** Discourage the siting of facilities that utilize hazardous materials or generate hazardous wastes within one-quarter mile of any private or public school, park, or similar place where people congregate in numbers.

**Policy S-3.2: Hazardous Materials Locations.** Monitor and evaluate commercial and industrial uses that generate, store, and transport hazardous materials to determine the need for buffer zones or setbacks to minimize risks to residential neighborhoods, schools, parks, and community facilities.

**Policy S-3.3: Hazardous Air Pollution.** Consult with the Southern Coast Air Quality Management District regarding the emissions monitoring of industrial operators that use or produce hazardous materials/toxic compounds.

**Policy S-3.4: Minimize Exposure.** Re-evaluate Manufacturing zones land use regulations to determine the appropriate types of industrial uses to allow, with a particular focus on those that handle or generate large quantities of hazardous materials.

**Policy S-3.5: Contamination Protection.** Protect natural resources including groundwater from hazardous waste and materials contamination.

**Policy S-3.6: Oil Drilling and Production.** Promote the gradual consolidation and elimination of oil drilling and production sites to advance the City's climate adaptation and resiliency strategies, local reduction of greenhouse gases, and land use goals.

**Policy S-3.7: Contamination Remediation.** Consult with the U.S. Environmental Protection Agency and responsible State agencies on the ongoing remediation and cleanup of contaminated properties and groundwater, with the aim to recondition sites for productive land uses.

**Policy S-3.8: Agency Collaboration.** Consult with State, federal, and Los Angeles County agencies to develop and promote best practices related to the use, storage, transportation, and disposal of hazardous materials.

**Policy S-3.9: Hazard Mitigation.** Coordinate and integrate hazard mitigation activities with emergency operations plans and procedures.

**Policy S-3.10: Proper Hazardous Materials Management.** Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations.



**Policy S-3.11: Public Awareness.** Develop and implement education and outreach programs to increase public awareness of the risks associated with natural, human-caused, and technological hazards.

**Policy S-3.12: Superfund Sites.** Require companies that contaminate the soil and water to provide the City adequate funding for a safe and prompt cleanup, adequate health care to community members harmed, and adherence to local, State, and federal government policies and programs affecting Superfund sites.

**Policy S-3.13: Soil Remediation.** Encourage the application of new and innovative methods for remediating contaminated soils.

**Policy S-3.14: Regulatory Agency Consultation.** Consult with the Department of Toxic Substance Control, Geologic Energy Management Division, Local Enforcement Agency, and other regulatory agencies to assure that contaminated sites are properly and completely remediated.

**Goal S-4: Minimized risk of urban fires and their associated adverse effects.**

**Policy S-4.1: Petroleum-related Fire Sources.** Reduce the sources of significant combustion and urban fires, including active producer well sites, active water injection wells, oil industry tank farms and compression plants, and aboveground tanks storing flammable or combustible liquids.

**Policy S-4.2: New Development Risks.** Evaluate developments and other intensification of uses for potential increase to level of fire risk, susceptibility to urban fires, and exposure to high level fire.

**Policy S-4.3: Underground Sources.** Identify and map underground pipelines that convey various combustible materials and use that information when assessing the suitability of a proposed land use or public improvement.

**Policy S-4.4: Fire Inspections.** Conduct regular fire inspections of industrial and commercial businesses in the City to ensure their compliance with fire safety regulations.

**Policy S-4.5: Fire Prevention Education:** Conduct ongoing local fire safety education and awareness programs for residents and businesses.

**Goal S-6: A community working together to avoid injury and loss of life resulting from a large disaster.**

**Policy S-6.1: Community Emergency Response and Preparedness.** Support active participation by residents and businesses through volunteer programs focused on emergency preparedness and response and recovery from an emergency event, including specialized programs to address special needs and vulnerable populations.

**Policy S-6.2: Emergency Preparedness Plans.** Regularly review and update emergency preparedness and operation plans to create up-to-date disaster management systems. Include evacuation planning approaches that respond to a multitude of emergency conditions and locations.

**Natural Hazards Mitigation Plan.** The City has adopted a Natural Hazards Mitigation Plan which provides natural hazard mitigation strategies to reduce the impacts concentrated at large employment and industrial centers, public infrastructure, and critical facilities. The measures were created to be integrated into future building code updates and General Plan Safety

Element updates. The mitigation measures are therefore implemented by conformance with building code and regulation.

## **Municipal Code**

### *152.01 Purpose*

The purpose of this chapter is to implement the policies set forth in the city's hazardous waste management plan of the environmental element of the city's general plan and to establish uniform standards to control the location, design, and maintenance of hazardous waste facilities consistent with the provisions of said element.

### *152.04 Specified Hazardous Waste Facility Projects*

All applications for specified hazardous waste facility projects shall conform with the provisions set forth in Cal. Health and Safety Code §§ 25199 et seq., Cal. Pub. Res. Code §§ 21000-21177, and Cal. Gov't Code §§ 65920 et seq.

### *152.07 Hazardous Waste Facility Projects*

All applications for hazardous waste facility projects which are not specified hazardous waste facility projects shall follow the procedures consistent with Cal. Pub. Res. §§ 21000 through 21177 and Cal. Gov't Code §§ 65920 et seq.

### *152.33 Extremely Hazardous Wastes*

Any storage, treatment, disposal, or transportation of extremely hazardous waste as defined in Cal. Health and Safety Code § 25115, by the facility owner/operator shall be reported to the Director of Planning and Fire Chief at least 48 hours prior to such storage, treatment, disposal, or transportation.

## **4.9.3 – SIGNIFICANCE THRESHOLDS**

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

- A. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- B. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

- E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
- F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.
- H. Would the project cause substantial adverse cumulative impacts with respect to hazards and hazardous materials.

#### **4.9.4 – IMPACTS AND MITIGATION MEASURES**

This section describes potential impacts related to hazards and hazardous materials which could result from the implementation of the General Plan Update and recommends mitigation measures as needed to reduce significant impacts.

##### **Transport, Use, and Disposal Hazards**

***Impact HAZMAT-1 – Would the GPTZCU create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***  
***Analysis of Impacts***

##### City-wide

Implementation of the proposed GPTZCU would result in an increase in residential dwelling units and commercial square footage within the Planning Area. Construction associated with implementation of the General Plan would likely involve the use and disposal of chemical agents, solvents, paints, and other hazardous materials associated with construction activities. The amount of these chemicals present during construction would be limited, would comply with existing government regulations, and would not be considered a significant hazard.

Hazardous materials associated with new residential uses could include, for example, liquid chemical products (e.g., household cleaners), used motor oil, building maintenance supplies, paints and solvents, pesticides, or other similar materials. The limited quantity of such products would not generate significant hazardous emissions or involve the use of acutely hazardous materials that could pose a significant threat to the environment.

The U.S. and California Departments of Transportation regulate the designation of routes appropriate for the transportation of hazardous materials/wastes. The existing General Plan identifies these routes. Generally, the transportation of hazardous materials is regulated by the issuance of permits to the transporter. Such permits are issued by the California Department of Health Services, through the County of Los Angeles Health Department.

##### Key Opportunity Sites

Three of these sites are already developed although the MC&C site is currently vacant. The Washington/Norwalk and Metrolink sites are both in urbanized settings, the Washington site is surrounded by a mixture of residential and commercial uses while the Metrolink site is mostly surrounded by light industrial uses although there are commercial uses to the west and multi-family resident and a car wash to the south in the City of Norwalk. The opportunity sites are to

be developed with mixed-use or higher density residential uses so any existing light industrial buildings or uses on the sites will be removed and will then support uses that do not generate hazardous materials (i.e., residential, and commercial) that can produce public health and safety risks.

Development of these four opportunity sites with residential and commercial uses under the proposed General Plan Update would substantially reduce the potential risks or impacts of these sites compared to the risks from their existing or future light industrial uses under the current general plan. Therefore, development of these sites will reduce potential impacts relative to the routine transport, use, or disposal of hazardous materials. However, development may require site-specific hazmat studies (e.g., Phase I Environmental Site Assessment) to determine if sampling and laboratory testing of onsite soils and/or groundwater is necessary.

#### General Plan Update

The existing Safety Element of the General Plan contained Goals 7.4 and 7.5 and policy 7.3 to assure future development would not result in significant environmental impacts regarding hazardous materials. In addition, the proposed GPTZCU contains several goals and policies that would continue the protection of residents and properties from hazardous materials (hazmat).

Goal LU-3 of the Land Use Element encourages the City to have “clean” industrial buildings and is supported by Policy LU-3.1 and 3.2, which address how hazardous materials are handled and to locate facilities that handle hazmat away from residences, schools, and other sensitive uses. Policies LU-3.4 through 3.7 address cleanup and monitoring of contaminated sites, including active and former oil well sites, while Policies LU-3.3 and 3.8 encourage the use of green technologies to reduce hazmat.

Safety Element Goal S-3 and its Policies, S-3.1 through S-3.5 and S-3.10, also address how hazmat is managed regarding industrial and commercial uses in the City, and Policies S-3.6 and S-3.7 also address oil-related hazards.

Future commercial development within the Planning Area could involve the storage, use and disposal of potentially hazardous materials, including building maintenance supplies, paints and solvents, pesticides and herbicides for landscaping and pest control, vehicle maintenance products, and similar substances. The City would require all new development to follow applicable federal, state, regional, county, and local regulations and guidelines regarding the storage, handling and disposal of hazardous waste. In addition, all hazardous materials are required to be stored and handled according to manufacturer's directions and local, state, and federal regulations.

#### Level of Significance Before Mitigation

Less than significant.

#### Mitigation Measures

None required.

#### **Hazardous Materials**

***Impact HAZMAT-2 – Would the GPTZCU create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

**Analysis of Impacts**

City-wide

As shown in Table 4.9-2, and Exhibit 4.9-2, there are 725 Hazardous Waste Generators within the planning area. Additionally, Table 4.9-1 and Exhibit 4.9-1 show that there are 1,430 oil wells within the Planning Area, of which 228 are active, and 88 idle. The remainder of the wells have been capped. The City also has 10 registered Superfund sites, including one site on the National Priorities List (NPL), and 4 LUST sites (Exhibit 4.9-3). A Superfund site in the neighboring city of Whittier, the former Omega Chemical Corporation site, has caused a leak of chemicals which have contaminated the groundwater and have migrated southwest, creating a large plume of contamination beneath region, including the City of Santa Fe Springs and the cities of Norwalk and Whittier (Exhibit 4.9-4). Finally, there may potentially be other unreported releases within the Planning Area or in areas adjacent to the Planning Area. All of these sites have the potential for releasing hazardous material into the environment.

Development on or near un-remediated and hazardous sites could expose future construction workers, residents, workers, or other members of the public to potential hazards. Existing initiatives to address contaminated sites, such as remedial action on the City's NPL list Superfund Site in 2006, and the ongoing regional groundwater cleanup system, help address and reduce the potential for the release of hazardous materials into the environment.

Demolition of existing structures in the Planning Area would involve removal and disposal of existing building materials. Some older buildings may contain hazardous materials, such as asbestos containing materials or lead based paint. If not properly abated, these materials could negatively impact construction workers or members of the public. The South Coast Air Quality Management District (SCAQMD) regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos. The SCAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement, and following regulations reduces the potential of hazardous materials to be released into the environment from the demolition of existing structures.

Key Opportunity sites

The Washington/Norwalk site is along Washington Boulevard west of Broadway Avenue in an urbanized setting surrounded by a mixture of residential and commercial uses. The Metrolink site is north of and across Imperial Highway from the Norwalk/Santa Fe Springs Transportation Center and surrounded by a mixture of residential, commercial, and light industrial uses. The Washington/Norwalk and Metrolink sites will both have transit-oriented mixed uses including up to 1,000 multi-family residential units at up to 60 units per acre and 6 stories with supporting commercial services and retail restaurants on a total of about 20 acres.

The MC&C site is vacant land at the southeast corner of Bloomfield Avenue and Telegraph Road with residential to the west, industrial uses to the north and south, and vacant oil-producing land to the east. The MC&C site will have similar mixed uses to the Washington/Norwalk and Metrolink sites but its residential uses will be at 40 units per acre with four-story buildings on 10 acres.

The Koontz site is at the southwest corner of Florence Avenue and Norwalk Boulevard and has older industrial buildings but is surrounded by a wide variety of uses including industrial, office, commercial, mobile homes, and multi-family residential units. The site is proposed for approximately 156 multi-family townhomes at 25 units per acre and a neighborhood shopping center on a total of 15 acres.

These four sites are in urbanized settings and only one is vacant at present (MC&C site). Development of these four opportunity sites with residential and commercial uses will substantially reduce the potential risks or impacts of these sites related to hazards and/or hazardous materials compared to existing or future light industrial uses under the current General Plan. Therefore, development of these sites will reduce potential impacts relative to the routine transport, use, or disposal of hazardous materials. However, development may require site-specific hazmat studies (e.g., Phase I Environmental Site Assessment) to determine if sampling and laboratory testing of onsite soils and/or groundwater is necessary. This is most likely for the MC&C and Koontz sites given past onsite and/or adjacent land uses.

#### General Plan Update

The potential for accidental contamination would also be addressed through the continued application of existing General Plan Safety Element Goals 7.1 through 8.3 and 12.1 through 12.4 as well as General Plan Safety Element Policies 7.1 through 8.1 and 12.1.

In addition, the GPTZCU contains a number of goals and policies that address potential upset conditions and accidental hazmat releases. Land Use Element Goal LU-3 encourages clean (new) industrial development, with monitoring of hazmat use and appropriate siting of facilities as required by Policies LU-3.1 and 3.2. Policies LU-3.3, 3.4 through 3.7 address remediation of existing and former oil properties in ways that will protect public health and safety. In addition, Safety Element Goal S-3 and its Policies S-3.1 through 3.5 and 3.10 also address how hazmat is managed and risks are minimized regarding industrial and commercial uses in the City, and Policies S-3.6 and 3.7 also address oil-related hazards.

The City's review process will continue to ensure that a Phase 1 Environmental Site Assessment (ESA) will be prepared where appropriate. By following applicable Phase 1 ESA requirements and with continued adherence to the requirement of the General Plan Safety Element and compliance with established local, State and federal environmental site assessment procedures, laws, and regulations; potential risks to human health or the environment due to existing hazardous materials contamination would be reduced to less than significant levels.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Emit Hazardous Emissions**

***Impact HAZMAT-3 – Would the GPTZCU emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

**Analysis of Impacts**

City-wide

There are numerous schools within the Planning Area boundaries. New development within the Planning Area is expected to be primarily residential and commercial uses; these uses are not expected to emit hazardous materials affecting school sites. Hazardous materials associated with new residential and commercial uses could include, for example, liquid chemical products (e.g., household cleaners), used motor oil, building maintenance supplies, paints and solvents, and pesticides. The limited quantity of such products would not generate significant hazardous air emissions or involve the use of acutely hazardous materials that could pose a significant threat to the environment or human health.

Development on or near un-remediated and hazardous sites near to schools could expose students and staff to potential hazards. Development on or near sites which are known to contain hazardous materials where a release of hazardous materials is possible would require Phase 1 Environmental Site Assessment (ESA) to be prepared.

Key Opportunity sites

Development of these four sites will convert existing light industrial-related uses or vacant land (MC&C site) to mixed-use and/or residential uses which would generate much less hazardous materials and minimize potential risks for surrounding sensitive uses where present, including any schools. There is an elementary school at present within a quarter mile of the Washington Boulevard/Norwalk site but not near the Metrolink MC&C or Koontz sites.

Any sites that supported former industrial-related uses would likely require preparation of a Phase I Environmental Site Assessment (ESA) to determine if subsequent soil and/or groundwater sampling and laboratory testing was required as a result of site development.

General Plan Update

The potential for accidental contamination would be addressed through the continued application of General Plan Safety Element Goals 7.1 through 8.3 and 12.1 through 12.4 as well as General Plan Safety Element Policies 7.1 through 8.1 and 12.1. The existing Safety Element of the General Plan contained Goals 7.4 and 7.5 and policy 7.3 to assure future development would not result in significant environmental impacts regarding hazardous materials. In addition, the proposed GPTZCU contains a number of goals and policies that would continue protection of residents and schools from hazardous materials.

The GPTZCU contains a number of goals and policies that address potential upset conditions and accidental hazmat releases. Land Use Element Goal LU-3 encourages clean (new) industrial development, with monitoring of hazmat use and appropriate siting of facilities, including near schools<sup>1</sup>, as required by Policies LU-3.1 and 3.2. In addition, Safety Element

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<sup>1</sup> The State CEQA Guidelines, Appendix G, Checklist, requires an assessment of development impacts on schools within a quarter mile of sites that emit or handle hazardous materials.

Goal S-3 and its Policies S-3.1 through 3.5 and 3.10 also address how hazmat is managed and risks are minimized regarding industrial and commercial uses in the City. Specifically, Policy S-3.1 discourages the siting of facilities that utilize hazardous materials or generate hazardous wastes within one-quarter mile of any private or public school, park, or similar place where people congregate in numbers.

In areas of proposed development as a result of the GPTZCU, the City's review process will ensure that a Phase 1 ESA will be prepared where appropriate. By following applicable Phase 1 ESA requirements and with continued adherence to the requirement of the General Plan Safety Element and compliance with established local, State and federal environmental site assessment procedures, laws, and regulations; potential risks to human health or the environment due to existing hazardous materials contamination would be reduced to less than significant levels.

New development within the Planning Area could use and dispose of chemical agents, solvents, paints, and other hazardous materials associated with construction activities. The amount of these chemicals present during construction would be limited, would comply with existing government regulations, and would not be considered a significant hazard. In addition, individual discretionary development applications would be required to undergo a project-specific CEQA review which would include an evaluation of a project's potential impacts on schools. By following existing laws and regulations, and ESA recommendations where appropriate, as well all goals and policies in the GPU, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

**Hazardous Material Sites**

***Impact HAZMAT-4 – Would the GPTZCU be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

**Analysis of Impacts**

City-wide

The City contains over 200 sites that are included on the Cortese list required by Government Code Section 65962.5 for various reasons; however, the vast majority of these sites are now closed following remediation and cleanup. Several sites are permitted sites operating within code and regulations. One site is a hazardous waste facility which is subject to corrective action that is currently ongoing.



### Key Opportunity sites

None of the four opportunity sites are identified as a contaminated hazmat or waste site requiring regulatory oversight of remediation activities. However, the MC&C site is bounded on the east by oil extraction properties and may require some form of hazmat remediation prior to development.

The City's review process will ensure that a Phase 1 ESA will be prepared where appropriate regarding development of the opportunity sites. By following applicable Phase 1 ESA requirements and with continued adherence to the requirement of the General Plan Safety Element and compliance with established local, State and federal environmental site assessment procedures, laws, and regulations; potential risks to human health or the environment due to existing hazardous materials contamination would be reduced to less than significant levels relative to the opportunity sites.

### General Plan Update

Development that is located on or near a site on the Cortese list has the potential to create a significant hazard to the public or the environment through accidental release of hazardous material. Development on or near these sites would require Phase 1 Environmental Site Assessment (ESA) to be prepared. In addition, the potential for accidental contamination would be addressed through the continued application of General Plan Safety Element Goals 7.1 through 8.3 and 12.1 through 12.4 as well as General Plan Safety Element Policies 7.1 through 8.1 and 12.1.

In addition, the proposed GPTZCU contains goals and policies that would continue protection of residents and properties from identified hazardous material sites. Land Use Element Goal LU-3 encourages clean (new) industrial development, with monitoring of hazmat use and appropriate siting of facilities, including near schools<sup>2</sup>, as required by Policies LU-3.1 and 3.2. In addition, Safety Element Goal S-3 and its Policies S-3.1 through -3.5 and -3.10 also address how hazmat is managed and risks are minimized regarding industrial and commercial uses in the City.

If future redevelopment is proposed at any of these contaminated sites, potential contamination (if not already remediated) would be addressed through the City's development review requirements, and with project level CEQA documentation in compliance with applicable state and federal regulations.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

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<sup>2</sup> The State CEQA Guidelines, Appendix G, Checklist, requires an assessment of development impacts on schools within a quarter mile of sites that emit or handle hazardous materials.

## **Airports**

***Impact HAZMAT-5 – For a GPU located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the GPU result in a safety hazard or excessive noise for people residing or working in the GPU area?***

### **Analysis of Impacts**

The Fullerton Airport is located approximately 10.6 miles southeast of the Planning Area and El Monte Airport is located approximately 13.9 miles north of the center of the Planning Area. The GPU area does not fall within the Planning Boundary/Airport Influence Area for either airport (Department of Regional Planning, 2004).

Since there are no aircraft influence areas that affect the City, the existing General Plan and GPTZCU contain no goals or policies related to aircraft safety. No impacts related to an airport or private airstrip are anticipated, including for development of the four key opportunity sites.

#### *Level of Significance Before Mitigation*

Less than significant.

#### *Mitigation Measures*

None required.

## **Adopted Response and/or Evacuation Plans**

***Impact HAZMAT-6 – Would the GPU impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

### **Analysis of Impacts**

#### *City-wide*

As shown in the Los Angeles County Department of Public Works Disaster Route Maps, several major public streets serve as principal evacuation routes including: Washington Boulevard, Norwalk Boulevard, Telegraph Road, Florence Avenue, Imperial Highway., Carmenita Road, and Interstate I-5 (Santa Ana Freeway) (Los Angeles County Department of Public Works, 2008). These principal access ways are all well-maintained and should support an evacuation function. In any disaster warranting evacuation, the exact emergency routes used would depend on a number of variables, including the type, scope, and location of the incident.

#### *Key Opportunity sites*

The four opportunity sites are converting largely industrial land uses or vacant land (MC&C site) to mixed-use or residential uses which would generally reduce potential safety concerns regarding hazards and hazardous condition relative to emergency response plans. The Washington/Norwalk site has direct local and regional access from Washington Boulevard, Norwalk Boulevard., and Broadway Avenue. The Metrolink site has direct access from Imperial

Highway and Bloomfield Avenue. The MC&C site has direct access from Bloomfield Avenue and Telegraph Road. The Koontz site has direct access from Florence Boulevard and Norwalk Boulevard. All four opportunity sites have direct local and regional access so development of these sites will not have significant impacts on emergency evacuation plans and routes.

#### General Plan Update

The existing Safety Element of the General Plan contains Goals 4.1, and 4.12 to ensure future development would not conflict with emergency planning or evacuation. In addition, the proposed GPTZCU contains a number of goals and policies that would continue protection of residents and properties with emergency response plans and adequate emergency access. Within the GPTZCU Safety Element Goal S-3 desires to minimize exposure of residents, businesses, and biological habitat to hazardous materials. In support of that goal Policy S-3.9 requires coordination of local hazmat plans with regional emergency authorities.

In addition, Safety Element Goal S-6 encourages the entire community to work together to avoid injury, death, or building damage from large disasters. In addition, Policies S-6.1 and -6.2 support residents and businesses becoming active in planning for and recovering from major disasters.

While it is possible that there may be temporary and limited circulation changes required during discrete periods of time associated with specific construction projects, these changes would be temporary and would be of a nature that still allowed evacuation in the event of an emergency. Emergency access would be maintained to all properties within the project limits and the surrounding vicinity during construction.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Wildland Fires**

***Impact HAZMAT-7 – Would the GPU expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

#### **Analysis of Impacts**

##### City-wide

Generally, the greatest potential for wildfire hazards occurs in areas adjacent to abundant natural vegetation. Santa Fe Springs is an urbanized community with no areas of abundant natural vegetation, and no areas adjacent to abundant natural vegetation. The Planning Area is not mapped by CALFIRE Fire Hazard Severity Zone Maps as being located in an area of high fire threat. However, the City does have higher than normal fire risks for urban communities due to the large number of oil-related facilities within the Planning Area.

### Key Opportunity sites

Due to the urbanized setting of the City, none of the four opportunity sites have elevated wildfire risks. However, the MC&C site is adjacent to active oil production land and facilities, so it has a higher potential for urban petroleum-related fire risks. The City's standard development review process, including review of development plans by the Fire Department, will help assure future mixed-use and residential development on these four opportunity sites will have no elevated fire risks over those of the City as a whole.

### General Plan Update

The existing Safety Element of the General Plan contains Goals 5.1 through 5.4 and 6.1 through 6.9; and policies 5.1 through 5.4, 6.1 through 6.2, and 12.2 through 12.3 to assure future development would not result in significant environmental impacts regarding wildland fires.

Although the City is not in a wildland prone fire area, it does have an elevated fire risk due to the many oil-related and chemical facilities present. The proposed GPTZCU contains goals and policies that would continue protection of residents and properties from its elevated fire risks. **Safety Element** Goal S-4 desires to minimize the risk of urban fires and its Policy S-4.1 focuses specifically on potential petroleum-related fires, including active producer well sites, active water injection wells, oil industry tank farms and compression plants, and aboveground tanks storing flammable or combustible liquids. Policy S-4.2 addresses fire risks of new development, Policy S-4.3 addresses fire risks from underground pipelines, Policy S-4.4 requires regular fire inspections, and Policy S-4.5 focuses on public education programs to help reduce fire risks. In addition, Goal S-3 and its Policies S-3.1 through 3.11 all focus on different aspects of fire prevention and safety relative to oil-related facilities in the City.

The proposed GPTZCU is located in a highly urbanized area and would not include development within or adjacent to areas of abundant natural vegetation. Therefore, the GPTZCU would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Impacts related to wildfire will be less than significant.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Cumulative Impacts**

***Impact HAZMAT-8 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to hazards and hazardous materials?***

### **Analysis of Impacts**

Some impacts related to hazards and hazardous materials are often site specific and not cumulative in nature because each project area has unique considerations that would be subject to uniform site development and construction standards. Exceptions to this include

impacts that have the potential to contaminate the wider environment, such as water basins, or impacts that increase the potential of wildfire, or decrease the ability to evacuate an area.

The routine use, handling, and transport of hazardous materials is regulated at a State, federal, and local level, and frequently site specific. Following these regulations, and mitigations set down at a project level would ensure there is no cumulative impact to the public, or to schools within the Planning Area.

There are many sites within the Planning Area that are included in the Cortese list. Development of these sites has the potential to cause a release of hazardous material into the environment, which could have a significant cumulative impact. Project level mitigation and ongoing cleanup activities would ensure that development of these sites would not create a release of hazardous material into the environment and would not cause a cumulative impact relating to sites on the Cortese list.

Since there are no aircraft influence areas in the City, there would be no cumulative impact associated with a safety hazard or excessive noise for people residing or working in the GPU area.

There is the potential that multiple projects could be located along emergency routes, each slowing or interfering with an emergency response plan or emergency evacuation plan that, when considered together, create a significant impact. In addition to the individual CEQA analysis, the City will ensure as part of its development review process, that projects along emergency routes do not have the potential to have a cumulative effect and will not permit projects with this potential to occur simultaneously and will stagger the projects as necessary in order to allow emergency routes to flow freely.

There is limited potential for wildland fires within the Planning Area, and no areas of wildland in or adjacent to the Planning Area, and so projects would not be able to have a cumulative impact to wildland fires.

The existing Safety Element of the General Plan contained Goals 5.1 through 8.4 and Goals 12.1 through 12.8; and Policies 5.1 through 8.1 and Policies 12.1 through 12.4 to assure future development would not result in significant environmental impacts regarding hazards and hazardous materials. In addition, the proposed GPTZCU contains Land Use Element Goal 3 and Safety Element Goals 3 and 4, plus the various policies of these goals, that would continue protecting residents and properties from hazardous materials and accidents involving hazardous materials. It is assumed other surrounding jurisdictions have similar General Plan goals and policies as they generally reflect compliance with state laws regarding various hazards and hazardous materials.

Compliance with the requirements of the General Plan Safety Element described above, as well as following existing State, federal, and local laws and regulations, and by ensuring that projects with the capacity for cumulative impacts if ongoing simultaneously are mitigated on a project level and would result in a less-than significant cumulative impact from hazardous materials. Implementation of the proposed GPU would not result in a cumulatively considerable impact.

#### **Level of Significance Before Mitigation**

Less than significant cumulative impact.

## Mitigation Measures

None required.

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## 4.10 – Hydrology and Water Quality

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This EIR chapter addresses the potential for water quality, hydrology, flooding, erosion, and siltation impacts that could result from implementation of the proposed General Plan and Targeted Zoning Code Update (GPTZCU).

### 4.10.1 – ENVIRONMENTAL SETTING

#### Groundwater

Santa Fe Springs is located over the Central Basin groundwater basin. On its north, the Central Basin is bounded by the Hollywood Basin, and that boundary runs through the City of Los Angeles. The remainder of the northern boundary of the Central Basin extends along the Merced Hills, across Whittier Narrows, and then along Puente Hills. The Central Basin consists of four sections: the Los Angeles Forebay, the Montebello Forebay, the Whittier Area, and the Pressure Area. The California Department of Water Resources does not identify the Central Basin as being in overdraft (as of 2020).

The City owns three wells: Wells No. 1, 2, and 12. Well No. 1 was placed on standby in 2014 because of poor water quality. Well No. 2 has been on standby since 2008 due to water quality problems. Well No. 12 was drilled in 2013 and has been inactive since 2013 due to water quality issues. Wells No. 2 and No. 12 have production capacities of 1,900 and 2,000 gallons per minute, respectively. Water treatment facilities are planned for Wells No. 2 and No. 12. The City produced groundwater from the Central Basin from 2009 to 2014 from Well No. 1. The City did not pump any groundwater in 2015 from its wells.

**Groundwater Contamination Plume.** As previously outlined in Section 4.9.1 regarding hazardous materials, the Omega Chemical Corporation was a refrigerant and solvent recycling company that operated in the City of Whittier between 1976 and 1991. As a result of its operations, poly tetrachloroethene (PCE) and trichloroethene (TCE) have contaminated the local groundwater and created a large plume beneath Whittier and neighboring Cities including the City of Santa Fe Springs. In 1999, the EPA placed this site on its Superfund National Priorities List and the City shut down water production wells. In 2017 and 2018, 53 groundwater monitoring wells were constructed to provide data needed to design a regional groundwater cleanup system. As of 2020, work to address contaminated groundwater and design the regional groundwater cleanup system is ongoing.

#### Wastewater

The local wastewater collection system is owned and operated by Los Angeles County Sanitation Districts (LACSD) and maintained by Consolidated Sewer Maintenance District (CSMD). The wastewater collection system consists of approximately 84 miles of sewer mains providing wastewater pipelines to homes, businesses, and institutions. Wastewater collected from businesses and residences within the City is treated at LACSD's Los Coyotes Water Reclamation Plant (LCWRP) and Long Beach Water Reclamation Plant (LBWRP); after treatment, the wastewater is recycled for further use or discharged into the San Gabriel River.



### **Stormwater**

The storm drain system in Santa Fe Springs is maintained by the Los Angeles County Flood Control District (LACFCD) and includes a network of mains and catch basins that discharge into the Pacific Ocean via the San Gabriel River and its tributaries, such as Coyote Creek. High concentrations of impervious surfaces in intensive urban areas, like Santa Fe Springs and surrounding vicinities, has contributed to poor water quality from polluted stormwater runoff. Key sources of contamination include sediment, nutrients, pesticides, metals, oil and grease, and pathogens. The San Gabriel River is impaired by pollutants, including selenium and metals, such as copper, lead, and zinc. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials, such as galvanized steel, that are exposed to rain.

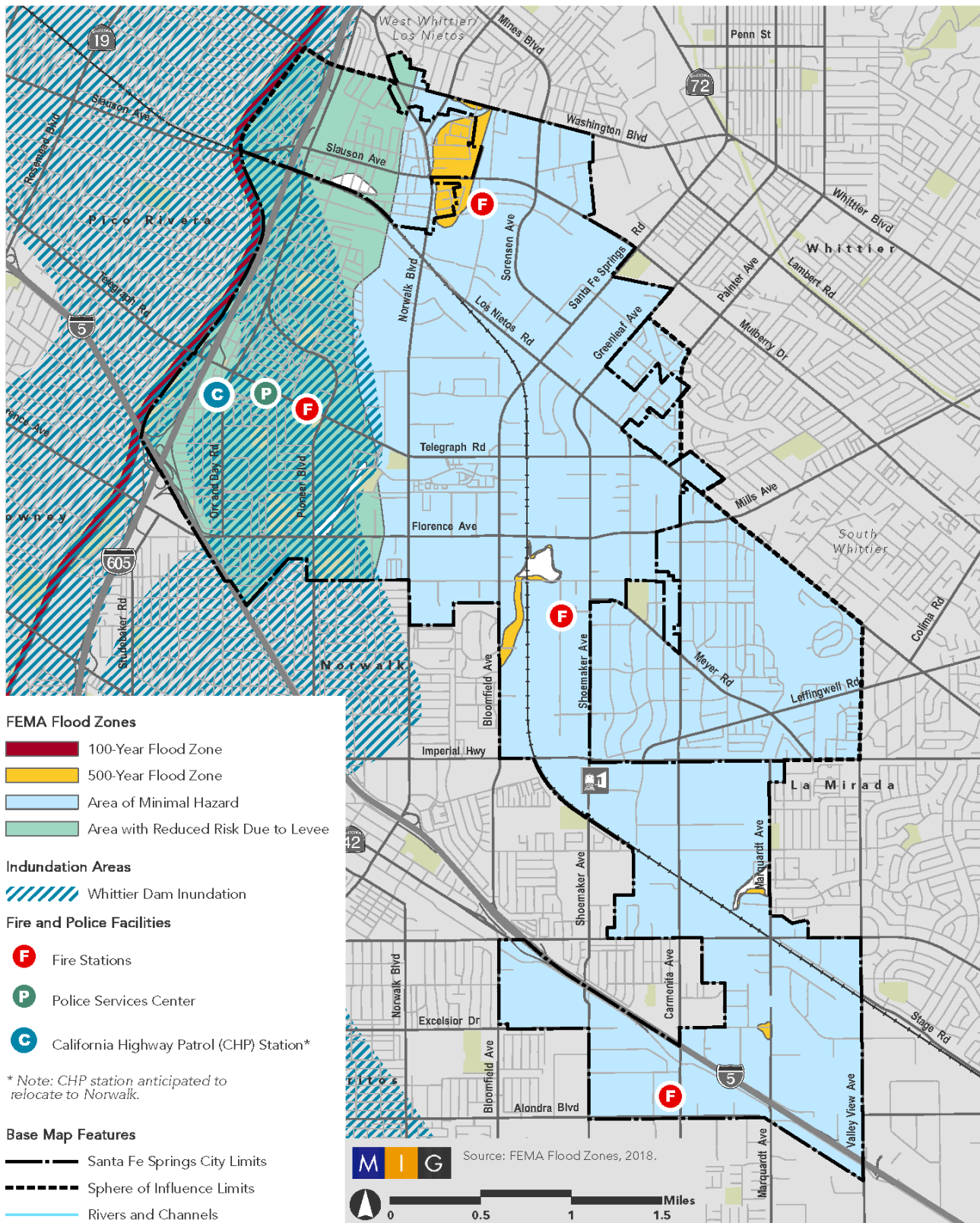
Santa Fe Springs, along with 12 other local cities and the LAFCD, formed the Lower San Gabriel River Watershed Management Group. The group attained a Los Angeles County National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit in 2013 and created a Watershed Management Program in 2015 to implement watershed control measures and reduce discharge of stormwater pollutants. In accordance with the Watershed Management Program, Santa Fe Springs set a final compliance milestone to capture and treat 2.1 acre-feet of stormwater in the Coyote Creek Watershed and 4.9 acre-feet of stormwater in the San Gabriel River Watershed by 2026.

### **Flooding and Dam Inundation**

Most of Santa Fe Springs faces minimal flood hazards, as outlined by the Federal Emergency Management Agency (FEMA) hazard map. The City is adjacent to the San Gabriel River, which is susceptible to flooding events, however, the 100-year flood event zone surrounding the river remains west of I-605 and outside the City limit. Risk of flooding from a 500-year flood event occurs in a few small pockets of the City, with the largest area in the City's northern industrial district. No additional flood hazards are mapped by FEMA, including a citywide absence of 100-year flood zones, which border the City along the San Gabriel River (see Exhibit 4.10-1).

Urbanization of a watershed changes the hydrologic system. Heavy rainfall in the City can collect and rapidly move across impervious concrete and asphalt surfaces, concentrating the flow in unnatural channels such as streets, creating swift moving rivers. Additional localized flooding can occur when storm drains back up with vegetative debris.

The Hoover Reservoir and Whittier Narrows Dam located five miles northwest of Santa Fe Springs poses the greatest threat from dam inundation for the City. The dam was built as a flood risk management and water conservation project in 1957 and creates a reservoir capacity of 9.75 million gallons of water. In 2016, the U.S. Army Corps of Engineers determined the dam is structurally unsafe and poses a potentially catastrophic risk to the communities along the San Gabriel River floodplain. In addition, engineers found that the mile-long earthen structure could fail if water were to flow over its crest or if seepage eroded the sandy soil underneath. Measures to permanently address these issues are currently being developed and evaluated (as of 2020). Inundation from dam failure would mostly affect the commercial, industrial, and residential areas of the City west of Norwalk Boulevard which is also shown in Exhibit 4.10-1.



## Exhibit 4.10-1 Flood Zones

Santa Fe Springs General Plan Update and Targeted Zoning Code Update  
Santa Fe Springs, California

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#### 4.10.2 – REGULATORY FRAMEWORK

##### Federal

**Clean Water Act Section 404.** The United States Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, aquifers, and coastal areas. The CWA focuses on the protection of surface water, but certain sections also apply to groundwater. Under the CWA, the United States Environmental Protection Agency (EPA) sets national standards and effluent limitations, and delegates many regulatory responsibilities to the California State Water Resources Control Board (SWRCB).

The CWA authorizes the EPA to regulate water quality in California by controlling the discharge of pollutants to water bodies from point and non-point sources through the National Pollution Discharge Elimination System (NPDES). In Los Angeles County NPDES permits are administered by the Los Angeles Regional Water Quality Control Board (RWQCB Region 4), a division of the State Water Resources Control Board (SWRCB). The Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Water Board 2020) is the master policy document that drives the management of water quality and NPDES permits.

NPDES permits are adopted to address the water quality and flow-related impacts of stormwater runoff. It is a comprehensive permit, which regulates activities related to construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. It also requires a public education program, implementing targeted pollutant reduction strategies, and a monitoring program to help characterize local water quality conditions and to begin evaluating the overall effectiveness of the permit's implementation.

##### Stormwater Water Discharge for Construction Sites

Dischargers whose projects disturb one (1) or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ.

Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling or excavation but does not include regular maintenance activities. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP), identifying potential sources of pollution and specifying runoff controls during construction for the purpose of minimizing the discharge of pollutants in stormwater from the construction area. The SWPPP must list best management practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. Construction-related BMPs are a set of specific guidelines for reducing pollutants (including sedimentation and turbidity) in stormwater discharges and runoff both during construction and post-construction.

Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The permit also includes post-construction standards with the requirement for all construction sites to match pre-project hydrology to ensure that the physical and biological integrity of aquatic ecosystems is maintained. This “runoff reduction” approach is analogous in principle to Low Impact Development (LID) and serves to protect related watersheds and water bodies from both hydrologic-based and pollution impacts associated with the post-construction landscape.

Section 404 of the CWA requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

**Federal Emergency Management Agency.** The Federal Emergency Management Agency (FEMA) creates maps classifying levels of flood risk or flood zones for designated areas. The maps are called Flood Insurance Rate Maps (FIRMs) and are utilized to determine the need and rate of flood insurance. Flood zones are determined based on historical data on the likelihood of flood inundation. The 100-year flood zone, also classified as Zones A, AO and AE, is the area of flooding expected to occur every 100 years.

**NPDES Program.** The National Pollutant Discharge Elimination System (NPDES) program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. Generally, these permits are issued and monitored under the oversight of the State Water Resources Control Board (SWRCB) and administered by each regional water quality control board. A brief discussion of these permit types is presented below:

*Municipal Permits.* Municipal separate storm sewer systems (MS4) are issued permits based on the size of the municipality. MS4 permit requirements include reduction of pollutant discharges to the ‘maximum extent practicable’ and protection of water quality. Requirements also include identification of major outfalls and pollutant loads and control of discharges from new development and redevelopment. To address these objectives, municipalities are required to prepare stormwater management plans. Although the NPDES program does not regulate nonpoint sources of pollution, the Los Angeles Basin RWQCB has other programs in place to address nonpoint sources.

*Industrial Permits:* The State Water Resources Control Board issues the Industrial General Permit that regulates discharges from 10 broad categories of industrial activities. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and monitoring program to implement water quality objectives through use of the best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT).

*Construction Permits:* Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the State’s General Permit for Discharges of Storm Water Associated with Construction Activity. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a SWPPP and implementation of Best Management Practices (BMPs) with a monitoring program.

**Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).** Section 10 of the Rivers and Harbors Act of 1899 states, “That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of War; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the

work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same” (EPA 2020).

## State

**Porter-Cologne Act (California).** Under the Porter-Cologne Water Quality Control Act (Porter-Cologne) the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. Porter-Cologne also established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. RWQCBs engage in a number of water quality functions in their respective regions.

**Sustainable Groundwater Management Act.** On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California.

**NPDES Regulations.** The federal Clean Water Act allows individual States to operate their own NPDES programs provided such programs meet minimum Federal requirements. The Los Angeles Regional Water Quality Control Board issues the municipal stormwater National Pollutant Discharge Elimination System permit, MS4, which encompasses the City of Santa Fe Springs.

The objective of Order No. 01-182 is to protect the beneficial uses of receiving waters in Los Angeles County. To meet this objective, the Order requires that the Los Angeles Countywide Stormwater Quality Management Plan (SQMP) specify Best Management Practices (BMPs) that would be implemented to reduce the discharge of pollutants in stormwater to the maximum extent practicable. Further, Permittees are to assure that stormwater discharges from the MS4 shall neither cause nor contribute to the exceedance of water quality, standards and objectives nor create conditions of nuisance in the receiving waters, and that the discharge of non-storm water to the MS4 has been effectively prohibited.

Permit No. CAS004001 requires implementation of a Stormwater Quality Management Plan, which provides specific guidelines to control, reduce and monitor discharges of waste to storm drain systems. The emphasis of the Stormwater Quality Management Plan is pollution prevention through education, public outreach, planning and implementation as source control BMPs first and structural and treatment control BMPs second.

**Standard Urban Stormwater Mitigation Plan.** The Standard Urban Stormwater Mitigation Plan (SUSMP) was developed as part of the Los Angeles Regional Water Quality Control Board’s Municipal Stormwater Program. The Standard Urban Stormwater Mitigation Plan addresses stormwater pollution from certain types of new development and redevelopment. The Standard Urban Stormwater Mitigation Plan specifies the minimum required Best Management Practices (BMPs) that must be used for a designated project. Additional BMPs may be required on certain targeted categories of projects based on these regulations at the discretion of the City. Applicable project applicants are required to incorporate appropriate Standard Urban Stormwater Mitigation Plan requirements into their development plans.

**California Water Plan.** Required by the California Water Code Section 10005(a), the California Water Plan, prepared by the State Department of Water Resources (DWR), is the state government's strategic plan for managing and developing water resources statewide for current and future generations and provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The California Water Plan, which is updated every five years, presents basic data and information on California's water resources, including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The California Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the state's water needs. The goal for the California Water Plan Update is to meet California Water Code requirements, while receiving broad support among those participating in California's water planning, and serving as a useful document for the public, water planners throughout the state, legislators, and other decision-makers.

**Colbey-Alquist Floodplain Management Act.** The Colbey-Alquist Floodplain Management Act encourages local governments to plan, adopt and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. This act also identifies requirements which jurisdictions must meet in order to receive state financial assistance for flood control.

**State Resolution No. W-4976.** In recent years, the State of California has been experiencing dry weather conditions due to less rainfall in the area, thus, causing a statewide drought emergency. In an effort to promote water conservation efforts, Resolution No. W-4976 was adopted by the California Public Utilities Commission on February 27, 2014 to establish procedures for water conservation measures in order to ensure a reduction in consumption. Since many water utility agencies or companies secure their water supply from multiple sources, including water wholesalers, surface water and/or groundwater; the adoption of this mandate has affected how water utility districts plan their service distribution while encountering various levels of water supply adjustments within each service area.

**California Green Building Standards Code.** The California Green Building Standards Code (CALGreen Code), Part 11 of the California Building Standards Code (Title 24) is designed to improve public health, safety, and general welfare by utilizing design and construction methods that reduce the negative environmental impact of development and to encourage sustainable construction practices. The CALGreen Code provides mandatory direction to developers of all new construction and renovations of residential and non-residential structures with regard to all aspects of design and construction, including, but not limited to, site drainage design, stormwater management, and water use efficiency. Required measures are accompanied by a set of voluntary standards designed to encourage developers and cities to aim for a higher standard of development.

**Low Impact Development.** The State of California adopted sustainability as a core value for all California Water Boards' activities and programs on January 20, 2005. Low Impact Development (LID) practices benefit water supply and contribute to water quality protection by taking a different approach to development and using site design and storm water management to maintain the site's pre-development runoff rates and volumes. The amount of impervious surface, infiltration, water quality, and infrastructure costs can all be addressed by LID techniques, tools, and materials. LID practices include: bioretention facilities or rain gardens, grass swales and channels, vegetated rooftops, rain barrels, cisterns, vegetated filter strips, and permeable pavements.

## Regional

**Los Angeles Regional Basin Plan.** The California legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality, including the Porter–Cologne Act and portions of the CWA, to the SWRCB and its nine RWQCBs. The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement Basin Plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The Los Angeles RWQCB is responsible for the protection of the beneficial uses of waters within the coastal watersheds of Los Angeles and Ventura counties, including the Project area. The Water Quality Control Plan for the Los Angeles Region, and Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code Sections 13240–13247). The Los Angeles RWQCB Basin Plan must conform to the policies set forth in the Porter-Cologne Act as established by the SWRCB in its state-wide water policies. The Porter-Cologne Act also provides the RWQCBs with authority to include within their basin plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

More specifically, the Basin Plan: (i) identifies beneficial uses for surface and ground waters, (ii) includes narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs and other actions that are necessary to achieve the water quality objectives established in the Basin Plan.

The Basin Plan is continually being updated to include amendments related to implementation of TMDLs of potential pollutants or water quality stressors, revisions of programs and policies within the Los Angeles RWQCB region, and changes to beneficial use designations and associated water quality objectives.

**Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended).** For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit applies to all projects in which construction activity disturbs one acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

Activities that disturb over half an acre of land require coverage under the Construction General Permit. Waste Discharge Requirements for the Discharge of Groundwater from Construction and Project Dewatering to Surface Waters in the Coastal Watersheds of Los Angeles and Ventura County (Los Angeles RWQCB Order no. R4-2018-0125). This general order is intended



to authorize discharges of treated or untreated groundwater generated from permanent or temporary dewatering operations or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits. Discharges from facilities to waters of the United States that do not cause, have the reasonable potential to cause, or contribute to an in-stream excursion above any applicable state or federal water quality objectives/criteria or cause acute or chronic toxicity in the receiving water are authorized discharges in accordance with the conditions set forth in this Order. To demonstrate coverage under the order, dischargers must submit documentation to show that the discharge would not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters, or any other discharge prohibition listed in the order. In addition, discharges must perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The sample shall be analyzed, and the data compared to the water quality screening criteria for the constituents listed in the order, and if results show exceedance of water quality screening criteria, the discharge will be required to treat the wastewater to acceptable standards prior to discharge.

## **Local**

### **City General Plan**

Within the elements of the existing 1994 General Plan, there are a number of policies relating to hydrological resources, as shown below.

- 3.1 Continue efforts with the Southeast Water Coalition to ensure that water supplies are properly planned, conserved, protected, and managed.
- 3.2 Continue to coordinate water programs with other water agencies to ensure the preservation and improvement of water quality and the conservation of water.
- 3.5.1 The City will continue its commitment to implementation of the Storm Drain Master Plan and work with the County to do the same.
- 3.5.2 The land use planning process will include the development standards of the National Flood Hazard Program.
- 3.6 Continue cooperative efforts to assure [sic] that contaminated soils are not a threat to groundwater [sic]
- 4.7.1 The City is committed to minimizing damage to life and property in the event of a major regional or local disaster.
- 12.5.2 The highest priorities for code development and enforcement will be in the areas of structural, hazardous material, seismic, fire safety, crime, traffic, property maintenance, waste stream, and environmental hazards.

### **2021 General Plan Update**

The proposed GPTZCU contains the following goals and policies related to water resources:

#### *Open Space and Conservation Element*

#### **Goal COS-4: Clean surface water, drainages, and groundwater.**

**Policy COS-4.1: Groundwater Supply Remediation.** Work with appropriate agencies and seek funding as appropriate to clean local groundwater to safe conditions.

**Policy COS-4.2: Contaminated Soils.** Coordinate with responsible agencies to avoid threats

that contaminated soils pose to groundwater quality.

**Policy COS-4.3: Groundwater Contamination.** Evaluate all proposed non-residential development plans for their potential to create groundwater contamination hazards from point and non-point sources and confer with other appropriate agencies to assure adequate review.

**Policy COS-4.4: Runoff Pollution Prevention.** Require that new development incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins.

*Circulation Element (Infrastructure Section)*

**Goal C-12: A sustainable and reliable water supply.**

**Policy C-12.1: Adequate Water Supply.:** Ensure adequate sources of water supply sufficient to serve existing and future development, and consider long-term climate change impacts to water demand and supply.

**Policy C-12.2: Water Conservation** Enforce conservation measures that eliminate or penalize wasteful uses of water as a response to drought, climate change, and other threats to adequate water supply.

**Policy C-12.3: Reclaimed Water.** Continue the development of the reclaimed water system to serve landscaped areas and industrial uses when financially feasible.

**Policy C-12.4: Water Rates.** Derive water rates that are fair and equitable to make certain financial sufficiency to fully fund operating and capital costs and meet water reserve requirements.

**Policy C-12.5: Water Quality.** Comply with all applicable water quality standards.

**Policy C-12.6: Water Mains Repair.** Maintain a program to replace leaking water mains and test and replace old water meters as needed.

**Policy C-12.7: Urban Water Management Plan.** Update the Urban Water Management Plan in accordance with the California Urban Water Management Planning Act.

**Policy C-12.8: Water Infrastructure.** Identify and prioritize capital improvements to construct new and replacement wells, pumping plants, and reservoirs consistent with applicable master plans.

**Policy C-12.9: Water Conservation:** Promote cost-effective conservation strategies and programs that increase water use efficiency.

**Policy C-12.10: Emergency Water Connections:** Maintain emergency connections with local and regional water suppliers in the event of delivery disruption or natural disaster.

**Goal C-14: A sustainable and resilient storm drain system.**

**Policy C-14.1: Green Infrastructure:** Promote green infrastructure projects that capture stormwater for reuse, improved water quality, and reduced flooding risk, including but not limited to permeable pavements, rain gardens, bioswales, vegetative swales, infiltration trenches, green roofs, planter boxes, and rainwater harvesting/rain barrels or cisterns for public and private projects.

**Policy C-14.2: Storm Drain.** Expand and maintain local storm drain facilities to accommodate the needs of existing and planned development and with capacity to withstand more frequent and intense storms and extreme flooding events; prioritize areas that have known drainage

capacity issues.

**Policy C-14.3: Storm Drain Pollution.** Implement all appropriate programs and requirements to reduce the amount of pollution entering the storm drain system and waterways.

**Policy C-14.4: Surface Water Infiltration.** Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

**Policy C-14.5: Permeable Surfaces.** Utilize permeable materials and similar approaches to reduce expansive asphalt and impervious surface area, such as parking areas, enforcing low-impact development and best management practices treatment methods, and increasing greenery, and increasing the City's inventory of green spaces.

#### *Safety Element*

#### **Goal S-2. Protection from flood and dam inundation hazards.**

**Policy S-2.1: Storm Drainage System.** Consult with Los Angeles County Public Works to ensure that existing and future regional storm drain facilities within and adjacent to Santa Fe Springs are designed, operated, and maintained to accommodate projected drainage needs associated with major storm events and climate change effects.

**Policy S-2.2: Localized Ponding Mitigation.** Require developers to address localized ponding, where it may exist, as part of site improvements.

**Policy S-2.3: Dam Inundation.** Consult with appropriate agencies and monitor the upgrade/retrofit of the Whittier Narrows Dam to protect the community against catastrophic damage that could result from a combination of an extreme weather, seismic, and/or climate change event.

**Policy S-2.4: Shelters.** Seek ways to enhance the City's sheltering facilities outside of the potential dam inundation area, including places of worship, schools, and public buildings.

**City of Santa Fe Springs 2020 Urban Water Management Plan.** The City is a water supplier and is required to prepare a Plan in accordance with the Urban Water Management Planning Act (UWMP) Act established in 1983. The UWMP Act is included in the California Water Code (CWC) under Sections 10610 through 10656. The UWMP Act requires water agencies to develop UWMPs which provide a framework for long-term water planning and information regarding long-term resource planning to ensure sufficient water supplies are available to meet existing and future demands. Urban water suppliers are required to report, describe, and evaluate water deliveries and uses, water supply sources, efficient water uses, demand management measures, and water shortage contingency planning.

**Southeast Water Coalition.** The City of Santa Fe Springs is a member of an 11-city group called the Southeast Water Coalition Joint Powers (SEWC; Whittier 2021). Created in 1991, the agencies formed a joint power authority to improve and protect the quantity and quality of the regional water supply. The SEWC Board of Directors consists of one representative (normally a Councilmember) from each member city. The Administrative Entity acts as a steering committee consisting of one Public Works type staff member from each member city plus three non-voting (advisory) members from the Central Basin Watermaster, Golden State Water Company, and California Water Service (two private utilities serving several member cities). SEWC's mission is to prevent the contamination of the Central Groundwater Basin from migrating contaminated groundwater and to encourage good governance of water policies to ensure the availability of reliable, quality, and affordable water.

**Municipal Code.** Section 52 of the City’s Municipal Code addresses stormwater and runoff pollution control measures, including the following parameters:

- Prohibited activities (52.15)
- Exempted discharges; conditionally exempted discharges; designated discharges (52.16)
- Good housekeeping provisions (52.17)
- Requirements for industrial/commercial and construction activities (52.18)
- Standard urban stormwater mitigation plan (SUSMP) and low impact development (LID) requirements for new development and redevelopment projects (52.19)

The section further establishes Fees (52.20), Enforcement (52.28), and Penalties (52.29) to protect Hydrology and Water Quality.

In addition, MC Section 154.17 requires that Grading and Erosion Control be implemented for developments as follows: “Every map approved pursuant to this chapter shall be conditioned on compliance with the requirements for grading and erosion control, including the prevention of sedimentation or damage to off-site property, set forth in Chapter 150 of this title.”

#### **4.10.3 – SIGNIFICANCE THRESHOLDS**

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

- A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- C. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would; (i) result in substantial erosion or siltation on-or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- D. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
- F. Cause substantial adverse cumulative impacts with respect to hydrology or water quality.

#### 4.10.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to biological resources which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts to less than significant levels.

##### **Degrade Surface or Groundwater Quality**

***Impact HYD-1 - Would the GPTZCU violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

##### **Analysis of Impacts**

###### City-wide

There is currently a plume of groundwater contamination of PCE and TCE beneath the City. Future development within the Planning Area under the GPTZCU may result in increased runoff and pollutant contributions to local drainages and groundwater supplies. The 1994 General Plan did not contain any specific policies relating to water quality standards, waste discharge requirements, or references to actions to avoid that would otherwise substantially degrade surface or groundwater supply. However, the 1994 General Plan did reference the continuation of several other regulatory/agency mechanisms by which the water quality, waste discharge, surface water, and groundwater is protected by law and policy (See Section 4.10.2). Since 1994, many of these laws and policies have been updated or given additional support to provide more stringent measures to protect water quality given the historic droughts that have occurred in California since the last City General Plan. One of the most specific in regard to groundwater is the Sustainable Groundwater Management Act signed into law in 2014.

###### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may contribute urban pollutants to local surface drainages and groundwater over both the short- and long-term. However, compliance with General Plan goals and policies regarding water quality, compliance with state and regional regulatory requirements, and compliance with the City's development review process and Municipal Code requirements will assure that future development in these areas will not have significant impacts regarding water quality.

###### General Plan Update

The Open Space and Conservation Element of the proposed GPTZCU contains Goal C)S-4 which strives to achieve clean surface water and groundwater supplies. In support of that goal, Policy COS-4.1 focuses on helping clean up the groundwater contamination plume currently beneath the City, while Policies COS-4.2 and COS-4.3 address cleaning up contaminated soils and regulating future land uses to help improve future groundwater quality. Policy COS-4.4 requires that new development incorporate water quality features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

In addition, the Infrastructure portion of the Circulation Element contains Goal C-12 and its supporting Policy C-12.5 requires all activities in the City to comply with current water quality regulations. Other policies under this goal encourage various methods of conservation to help reduce overall water consumption. This Element also contains Goal C-14 and its Policies C-14.1

through 14.5 which require the City to control water pollution related to its storm drain system.

With implementation of these General Plan goals and policies, and continued regulatory compliance with state and regional water quality standards, development within the Planning Area under the GPTZCU, including the key opportunity sites, will not result in significant impacts related to surface or groundwater quality.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Impacts to Groundwater Supply and Recharge**

***Impact HYD-2 – Would the GPTZCU substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

#### **Analysis of Impacts**

##### City-wide

According to the City's Urban Water Management Plan (UWMP), the City provides water service to an area with a 2015 population of about 14,700. The UWMP also estimated the City was projected to have a population of approximately 18,000 by 2040 (note the actual 2020 population is already estimated at 18,292 persons). The estimated future population for the City's service area was based on projections obtained from the Southern California Association of Governments (SCAG). The SCAG data incorporates demographic trends, existing land use, general plan land use policies, and input and projections from the Department of Finance (DOF) and the US Census Bureau at the time those documents were prepared (circa 2015). The UWMP indicated these population estimates were used to prepare its water consumption estimates (p. 3-5, CSFS 2017).

Table 3-2 in Section 3, Project Description, provides a comparison of existing City characteristics from 2020 and those estimated for 2040. Table 3-2 estimates the City's population will increase to 30,351 by 2040 which is far in excess of that estimated in the UWMP to adequately supply future growth. In addition, Table 3-2 estimates the total population of the Planning Area will be on the order of 60,808 persons by 2040. Since most of the City's water supply comes from groundwater sources, the growth represented by the proposed GPTZCU exceeds that upon which the UWMP was developed. Therefore, groundwater supply is a potentially significant impact that requires mitigation.

Since the last UWMP update in 2015, Southern California's urban water demand has been largely shaped by water conservation efforts to comply with the SBx7-7. This law requires all California retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve a 20 percent water demand reduction (from a historical baseline) by 2020. The City has been actively engaged in efforts to reduce water use in its service area to meet the 2015 interim 10 percent reduction and the 2020 final water use target.

Meeting this target is critical to ensure the City's eligibility to receive future state water grants and loans.

In April 2015 Governor Brown issued an Emergency Drought Mandate as a result of one of the most severe droughts in California's history, requiring a collective reduction in statewide urban water use of 25 percent by February 2016, with each agency in the state given a specific reduction target by DWR.

Even with recent water conservation efforts, long-term local groundwater supply is a potentially significant impact that requires mitigation.

In addition to overall groundwater supply, there is also a plume of groundwater contamination of PCE and TCE beneath the City that has significantly affected groundwater quality (i.e., the City had to cease operation of its potable water wells). Since local wells are not being used for potable water service, this further restricts the amount of readily available local groundwater that can be used by the City.

Future development within the Planning Area under the GPTZCU may also result in increased runoff and pollutant contributions to local groundwater supplies. As stated above, the 1994 General Plan did not contain any specific policies relating to actions to avoid substantially degrading groundwater supply. However, the 1994 General Plan did reference the continuation of several other regulatory/agency mechanisms by which the surface and groundwater are protected by law and policy (See Section 4.10.2). Since 1994, many of these laws and policies have been updated or given additional support to provide more stringent measures to protect surface and groundwater supplies given the historic droughts that have occurred in California since the last City General Plan. One of the most specific laws regarding groundwater, is the Sustainable Groundwater Management Act signed into law in 2014.

Future development under the GPTZCU will comply with the following: General Plan goals and policies regarding water supply and quality; state and regional regulatory requirements; the City's development review process; and City Municipal Code requirements. Even with this compliance, long-term local groundwater supply is a potentially significant impact that requires mitigation.

**Mitigation Measure UTL-1** is recommended to help assure there will be adequate groundwater supplies for future City and Planning Area residents.

#### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may incrementally use additional water supplies and reduce runoff and groundwater recharge, and contribute urban pollutants to local groundwater over both the short- and long-term. However, compliance with General Plan goals and policies regarding water supply and quality, compliance with state and regional regulatory requirements, and compliance with the City's development review process and Municipal Code requirements will assure that future development in these areas will not have significant impacts regarding groundwater supplies or quality.

#### General Plan Update

By helping remediate existing groundwater contamination, the City will help secure its groundwater supply in the future. The Open Space and Conservation Element of the proposed

GPTZCU contains Goal COS-4 which strives to achieve clean groundwater supplies. In support of that goal, Policy COS-4.1 focuses on helping clean up the groundwater contamination plume currently beneath the City, while Policies COS-4.2 and COS-4.3 address cleaning up contaminated soils and regulating future land uses to help improve future groundwater quality. Policy COS-4.4 requires that new development incorporate water quality features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events which will also help improve groundwater quality.

In addition, the Infrastructure portion of the Circulation Element contains Goal C-12 and its supporting Policy C-12.7 which requires the City to update its Urban Water Management Plan consistent with the California Urban Water Management Planning Act. Other policies under this goal encourage various methods of conservation to help reduce overall water consumption and reduce potential urban contamination that reaches the groundwater.

With implementation of **Mitigation Measure UTL-1** and these General Plan goals and policies, and continued regulatory compliance with state and regional water quality standards, development within the Planning Area under the GPTZCU, including the key opportunity sites, will not result in significant impacts related to groundwater supply.

#### **Level of Significance Before Mitigation**

Potentially significant.

#### **Mitigation Measures**

**UTL-1 Water Demand Management.** New developments under the GPTZCU that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plan for the involved local water providers.

#### **Level of Significance After Mitigation**

Less than significant.

#### **Impacts to Drainage Patterns, Erosion, Siltation, or Water Quality**

***Impact HYD-3 – Would the GPTZCU substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would; (i) result in substantial erosion or siltation on-or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

#### **Analysis of Impacts**

##### City-wide

The GPTZCU does not include any specific development or project that would substantially alter existing drainage patterns in the Planning Area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces. However, future development will be assessed at a site-specific project-level when proposed. Any future projects within the



Planning Area under the GPTZCU would be required to adhere to local, state, and federal law and policy (See Section 4.10.2) regulating impacts to streams, rivers, and drainage patterns through the area that may also lead to the increase in impervious surfaces. Any impacts would be required to be analyzed in subsequent project-level CEQA documentation, wherein any potentially significant impacts would be required to be mitigated to less than significant level, or otherwise compensate for any unavoidable impacts.

The Planning Area is characteristically flat and highly developed and non-developed areas include City parks, school fields, and landscaping around buildings. There is no significant anticipated risk of erosion resulting from steep slopes or from wind and rain in areas of exposed soils within the Planning Area. Future development resulting from implementation of the GPTZCU has the potential to expose surficial soils and, as a result, local soils may be subject to erosion or loss of topsoil during development as a result of the GPTZCU. Development may also increase downstream runoff by increasing impervious surfaces on specific sites.

The Regional Water Quality Control Board (RWQCB) regulates the discharge of storm water from municipalities and activities within their jurisdiction including construction. The City is a signatory of the Los Angeles County Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharge. The requirements include guidance and regulations for construction related erosion control, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for projects which would disturb one or more acres. The requirements also include appropriate best management practices (BMPs) that should be included to help prevent substantial soil erosion or the loss of topsoil.

In addition, the City's development review process examines potential increases in runoff from development sites and requires post-development runoff to not exceed pre-development levels through project design such as the use of detention/retention basins, pipes, swales, etc..

#### Key Opportunity Sites

Similar to the rest of the City, the four opportunity sites are flat and subject to the same state and regional water quality regulations including prevention of increased downstream runoff. Through the City's development review process development on these four sites will comply with the various requirements regarding erosion and flood control.

#### General Plan Update

The **Open Space and Conservation Element** of the proposed GPTZCU contains Goal OSC-6 and Policy OSC-6.4 which requires new development to incorporate design features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

In addition, the City's Municipal Code, Chapter 154.17 ensures the City will review all project plans and impose conditions as required to safeguard water quality and erosion control prior to the issuance of either a building permit or grading plan approval. The City's development review process will evaluate proposed development against established BMPs and other water quality-related guidelines, many of which are designed to control runoff and erosion.

With implementation of this General Plan goal and policy, continued regulatory compliance with state and regional water quality standards, and guidelines for erosion control in the Municipal Code, development within the Planning Area under the GPTZCU, including the key opportunity sites, will not result in significant impacts related to drainage patterns, erosion, siltation, or water quality.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Pollutant Risk from Site Inundation**

***Impact HYD-4 – Would the GPTZCU, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

### **Analysis of Impacts**

#### City-wide

As outlined in Section 4.10.1, most of Santa Fe Springs faces minimal flood hazards based on the Federal Emergency Management Agency (FEMA) hazard map. The City is adjacent to the San Gabriel River, which is susceptible to flooding events, however, the 100-year flood event zone surrounding the river remains west of I-605 and outside the City limit.

The Whittier Narrows Dam poses the greatest inundation threat to the City. If the dam were to fail, the portions of the City that would be inundated would be the commercial, industrial, and residential uses west of Norwalk Boulevard. The General Plan Update does not include any specific project that would risk release of pollutants due to property inundation. Any future projects within the Planning Area would be required to adhere to the County of Los Angeles's NPDES permit (See Section 4.10.2) regulating impacts and potential pollutant discharge within flood hazard or tsunami inundation areas.

The City of Santa Fe Springs is entirely landlocked with no major isolated waterbodies and is therefore not at risk of seiche. At its closest point, the City is approximately 11 miles from the Pacific Ocean and at an elevation of at least 80 feet above mean sea level, so it is unlikely any tsunami event affecting the Pacific Ocean coast would reach Santa Fe Springs.

Based on available evidence, it is unlikely the Planning Area would face any significant pollutant contamination or release during flood, seiche, or tsunami conditions. Impacts would be less than significant.

#### Key Opportunity Sites

New development on the four opportunity sites would have similar risks from flooding, seiche, or tsunami inundation as development elsewhere in the City. In addition, development of these sites involves mixed-use, commercial or residential uses which would not generate or contain large amounts of hazardous materials which could otherwise contribute to offsite pollution if an inundation event were to occur. Therefore, the potential for pollutant releases during inundation events from these sites would also be less than significant.

#### General Plan Update

The Safety Element of the proposed GPTZCU includes Goal S-2 which indicates the City wants to protect its citizens and businesses from flood or dam inundation hazards. Policy S-2.1 encourages the City to work with surrounding agencies to maintain drainage facilities in ways

that protect the City from flooding or inundation. Policy S-2.2 requires developers to alleviate local ponding on new development sites, and Policy S-2.3 requires the City to consult with the appropriate agencies to upgrade/retrofit the Whittier Narrows Dam to protect the community against catastrophic damage.

Therefore, no significant impacts to pollutant discharge in flood or tsunami inundation zones are anticipated from the implementation of the updated 2040 General Plan, including the four opportunity sites, within the Planning Area.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Project Compliance with Water Quality and Groundwater Management Plans**

***Impact HYD-5 – Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

#### **Analysis of Impacts**

##### City-wide

**Surface Water Quality Plan.** The Los Angeles Regional Water Quality Control Board (RWQCB) is responsible for the protection of the beneficial uses of waters within the coastal watersheds of Los Angeles and Ventura counties, including the City of Santa Fe Springs. The Water Quality Control Plan for the Los Angeles Region (Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The RWQCB can prohibit or limit water discharges based on particular conditions, areas, or types of waste. The Basin Plan: (i) identifies beneficial uses for surface and ground waters, (ii) includes narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs and other actions that are necessary to achieve the water quality objectives established in the Basin Plan.

**Construction General Permit.** For stormwater discharges associated with construction activities in the state, the State Water Resources Control Board (SWRCB) has adopted the Construction General Permit<sup>1</sup> (CGP) to avoid and minimize water quality impacts from such activities. The CGP requires the development and implementation of a stormwater pollution prevention plan (SWPPP) which would include and specify water quality Best Management Practices (BMPs) to prevent pollutants from contacting stormwater and keep erosion from moving off site into receiving waters.

Through the City's development review process, future development in the Planning Area must comply with the various requirements of the Basin Plan and the CGP. In this way, future development in the Planning Area would have less than significant impacts on surface water management plans.

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<sup>1</sup> SWRCB Order 2009-0009-DWQ, as amended

**Groundwater Management Plan.** The Water Replenishment District of Southern California (WRD) was formed in 1959 to protect local groundwater supply and quality. The Central Basin is within the WRD and managed by the Central Basin Watermaster. In addition, the City is a member of an 11-city group called the Southeast Water Coalition Joint Powers (SEWC). SEWC's mission is to prevent the contamination of the Central Groundwater Basin from migrating contaminated groundwater and to encourage good governance of water policies to ensure the availability of reliable, quality, and affordable water.

Through the City's development review process, future development in the Planning Area must comply with the various requirements of the Central Basin Watermaster and the SEWC. In this way, future development in the Planning Area would have less than significant impacts on groundwater management plans.

#### Key Opportunity Sites

Future development of the four opportunity sites would be required to comply with the Basin Plan, the Construction General Permit, the Central Basin Groundwater Management Plan as directed by the Central Basin Watermaster, and the current requirements of the SEWC. In these ways, development of the opportunity sites would have less than significant impacts on surface or groundwater management plans.

#### General Plan Update

The existing 1994 General Plan does not contain any specific policies relating to implementation of water quality control plans or sustainable groundwater management plans. However, it does reference the continuation of several other regulatory/agency mechanisms by which the water quality and groundwater are protected by law and policy (See Section 4.10.2). Since 1994, many of these laws and policies have been updated or given additional support to provide more stringent measures to protect water quality given the historic droughts that have occurred in California since the last City General Plan. One of the most specific regarding groundwater, is the Sustainable Groundwater Management Act signed into law in 2014.

The Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-4 which strives to achieve clean surface water and groundwater supplies. In support of that goal, Policy COS-4.1 requires the City to work with appropriate federal and state agencies and seek funding as appropriate to clean local groundwater to safe conditions.

In addition, the Infrastructure portion of the Circulation Element contains Goal C-12 and its supporting Policy C-12.5 requires all activities in the City to comply with current water quality regulations (i.e., for both surface and groundwater quality).

Therefore, no impact to implementation of water quality control plans or sustainable groundwater management plans are anticipated from the implementation of the updated 2040 General Plan, including the four opportunity sites, within the Planning Area.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

### **Cumulative Impacts**

***Impact HYD-6 - Would the GPTZCU cause substantial adverse cumulative impacts with respect to hydrology and water quality?***

### **Analysis of Impacts**

The Planning Area and surrounding communities contain water-related hazards and surface and groundwater resources that must be protected. State law requires that the Safety Elements of city general plans, including Santa Fe Springs, address potential flooding, erosion, changing drainage patterns, and other water-related hazards. In addition, the General Plan Open Space and Conservation Element identifies ways the City will coordinate with other agencies to protect surface and groundwater supplies. The Safety Element also contains goals and policies which acknowledge these potential risks and require structures and infrastructure to provide adequate levels of safety for the community.

In addition, the General Plans for the surrounding cities and the County General Plan are all required to identify potential risks from flooding, geologic and seismic conditions and contain goals and policies to address these risks and protect the public. These goals and policies are intended to be consistent with state law and are similar to those of the City's General Plan. In addition to local general plans, various state laws including CEQA require the City as a lead agency to identify potential water-related hazards related to new development and protect important water resources as development occurs in the future. Local water districts must prepare Urban Water Management Plans and Groundwater Sustainability Plans are required to provide long-term protection for both surface and groundwater supplies for the region.

In these ways, potential cumulative impacts to future development from flooding and water-related hazards will be minimized, and the protection of important regional water resources will be protected. Therefore, future development in the City under the GPTZCU, including the key opportunity sites, will not make a significant contribution to any cumulative regional impacts on flooding or other water-related hazards and protect surface and groundwater resources in the future.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

#### 4.10.5 – REFERENCES

City of Santa Fe Springs (CSFS), 2017. *City of Santa Fe Springs 2015 Urban Water Management Plan*. [website accessed March 2021]

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California Water Boards (Water Board), 2020. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. [website accessed April 2021]

[https://www.waterboards.ca.gov/losangeles/water\\_issues/programs/basin\\_plan/basin\\_plan\\_documentation.html](https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html).

Southeast Water Coalition (SEWC), 2021. Santa Fe Springs, Public Works Department. Southeast Water Coalition (SEWC). [website accessed March 2021]

<https://www.cityofwhittier.org/government/public-works/southeast-water-coalition-sewc>.

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## 4.11 – Land Use and Planning

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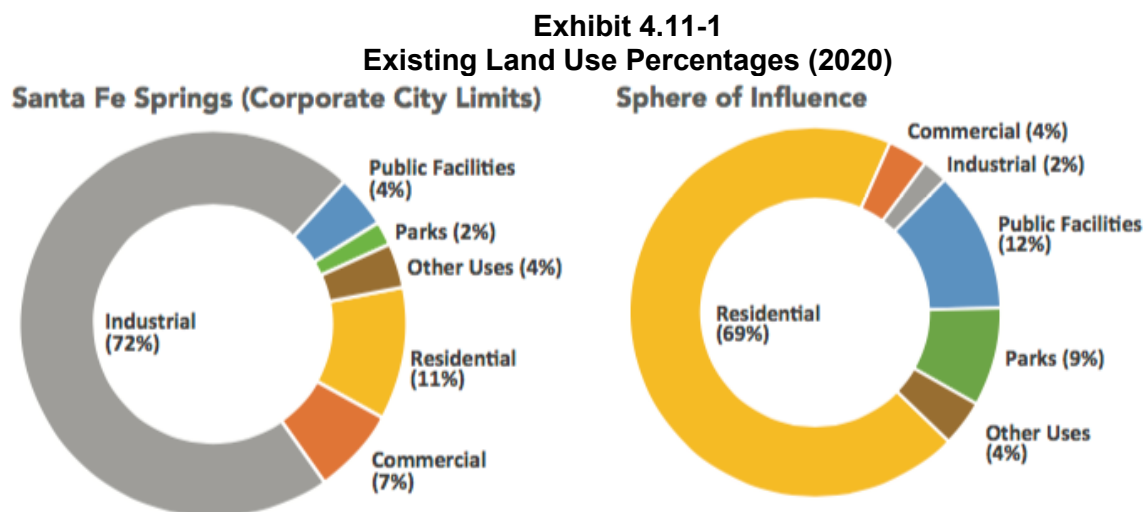
This EIR chapter addresses land use and planning impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are land use and planning impacts identified by the CEQA Guidelines: whether the GPTZCU will physically divide an established community or cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### 4.11.1 – ENVIRONMENTAL SETTING

Existing land uses and their regulatory plans provide a foundation for understanding how past planning efforts have shaped Santa Fe Springs. These plans include County plans pre-dating incorporation, the City's first General Plan from the 1970s, the 1994 General Plan (1993 Land Use Element), the City's Zoning Ordinance, the Active Transportation Plan, and the development of the Waste Disposal, Inc. Specific Plan (Santa Fe Springs, 2020).

#### Existing Land Uses

As of 2020, the City of Santa Fe Springs had 5,675 parcels encompassing 4,741 acres. The Sphere of Influence contained about 5,145 parcels encompassing an additional 1,285 acres (6,026-acre Planning Area). Existing land uses, as of 2020, included 29 different land use categories (see Table 4.11.1 ) ranging from residential, commercial, industrial, and public facilities. These land use categories are described below and enumerated in Table 4.11-1: Existing Land Use Acreages (2020). As shown in Figure 4.11-1, the proportions of industrial and residential land uses differ greatly between the City and Sphere of Influence. Within the incorporated City limits, industrial uses account for 72% of land area; in the Sphere, only 2% of the land is devoted to industrial use. Residential uses predominate in the Sphere, at 70%. Exhibit 4.11-1 (Existing Land Use (2020) identifies the various land uses throughout the City and Sphere of Influence. As shown in Table 4.11-1, most existing development within the Planning Area consists of industrial uses (3,425 acres, or 57%). Residential land uses account for 1,417 acres (24%), and park and open space uses account for 205 acres (3%).



Source: MIG, LA County Assessor, and UrbanFootprint, 2020

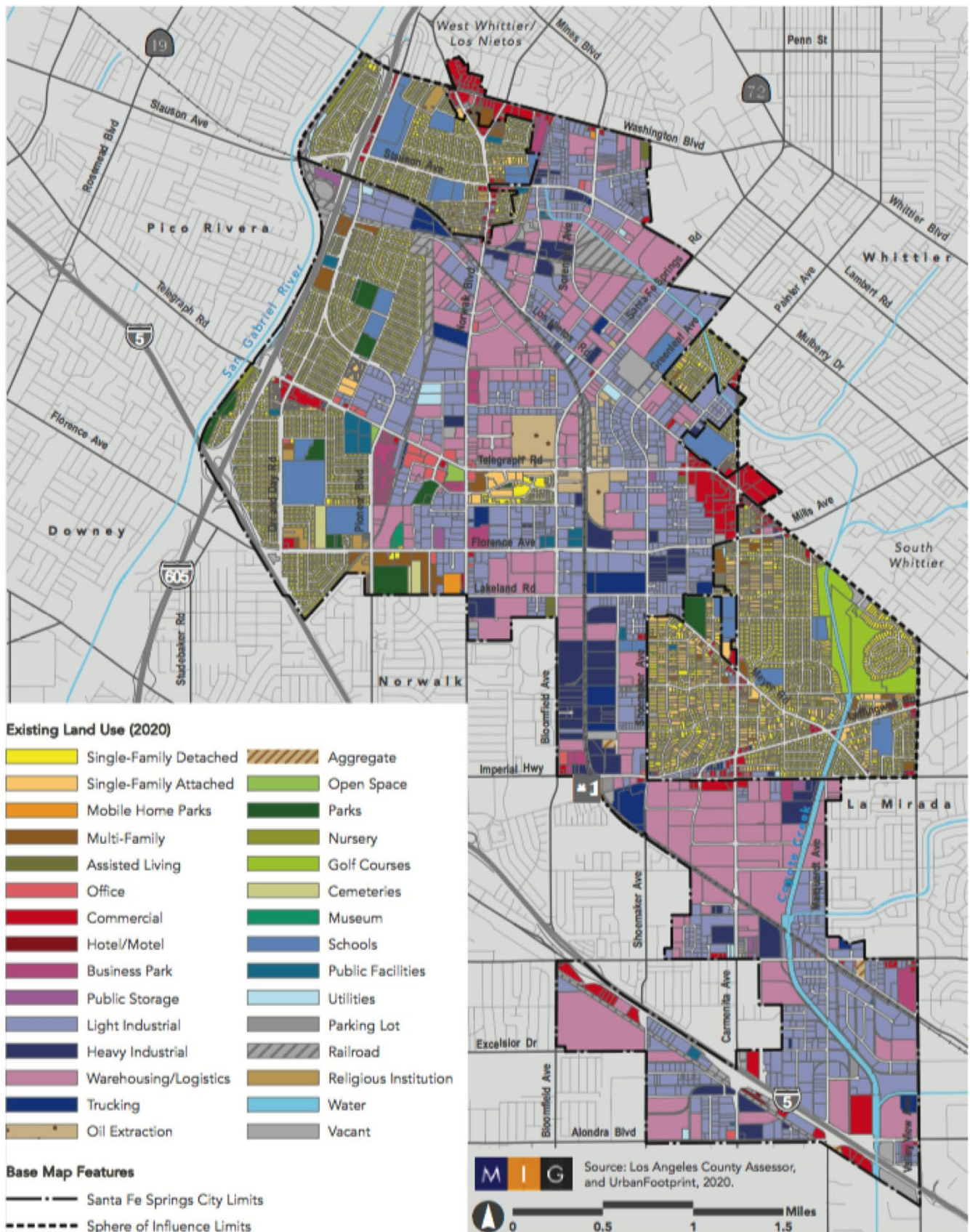


**Table 4.11-1  
Existing Land Use Acreages (2020)**

Land Use Types	Planning Area (Net Acres)					
	City		Sphere of Influence		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
<b>Residential Uses</b>	<b>523.7</b>	<b>11.0%</b>	<b>892.9</b>	<b>69.5%</b>	<b>1,416.6</b>	<b>23.5%</b>
Single-Family Attached	40.6	0.9%	168.9	13.1%	209.5	3.5%
Single-Family Detached	413.2	8.7%	684.1	53.2%	1,097.3	18.2%
Mobile Home Parks	8.2	0.2%	0	0.0%	8.2	0.1%
Multi-Family	53.1	1.1%	38.9	3.0%	92.0	1.5%
Assisted Living	8.6	0.2%	1	0.1%	9.6	0.2%
<b>Commercial Uses</b>	<b>340.7</b>	<b>7.2%</b>	<b>44.5</b>	<b>3.5%</b>	<b>385.2</b>	<b>6.4%</b>
Commercial	196.5	4.1%	40.1	3.1%	236.6	3.9%
Hotel/Motel	2.8	0.1%	1.6	0.1%	4.4	0.1%
Business Park	83.2	1.8%	0	0.0%	83.2	1.4%
Office	35.3	0.7%	2.8	0.2%	38.1	0.6%
Public Storage	22.9	0.5%	0	0.0%	22.9	0.4%
<b>Industrial Uses</b>	<b>3,396.7</b>	<b>71.6%</b>	<b>29</b>	<b>2.3%</b>	<b>3,425.7</b>	<b>56.8%</b>
Light Industrial	1,446.8	30.5%	11.1	0.9%	1,457.9	24.2%
Heavy Industrial	273.4	5.8%	1.5	0.1%	274.9	4.6%
Oil Extraction	98.4	2.1%	0	0.0%	98.4	1.6%
Railroads and Railyards	219.2	4.6%	9.6	0.7%	228.8	3.8%
Aggregate and Cement	6.4	0.1%	0	0.0%	6.4	0.1%
Trucking-Related	114.5	2.4%	4	0.3%	118.5	2.0%
Warehousing/Logistics	1,238.0	26.1%	2.8	0.2%	1,240.8	20.6%
<b>Public Facilities Uses</b>	<b>206.2</b>	<b>4.3%</b>	<b>156.8</b>	<b>12.2%</b>	<b>363.0</b>	<b>6.0%</b>
Public Facilities	41.5	0.9%	3.4	0.3%	44.9	0.7%
Schools	124.1	2.6%	147.6	11.5%	271.7	4.5%
Museum	5.0	0.1%	0	0.0%	5.0	0.1%
Utilities	35.6	0.8%	5.8	0.5%	41.4	0.7%
<b>Parks and Open Space Uses</b>	<b>94.0</b>	<b>2.0%</b>	<b>111.3</b>	<b>8.7%</b>	<b>205.3</b>	<b>3.4%</b>
Parks	69.9	1.5%	14.4	1.1%	84.3	1.4%
Open Space	5.1	0.1%	0	0.0%	5.1	0.1%
Cemeteries	19.0	0.4%	0	0.0%	19.0	0.3%
Golf Courses	0.0	0.0%	96.9	7.5%	96.9	1.6%
<b>Other Uses</b>	<b>179.9</b>	<b>3.8%</b>	<b>50.7</b>	<b>3.9%</b>	<b>230.6</b>	<b>3.8%</b>
Religious Institution	19.9	0.4%	17.2	1.3%	37.1	0.6%
Vacant	90.1	1.9%	13.6	1.1%	103.7	1.7%
Storm Channels and Drainage	58.9	1.2%	19.5	1.5%	78.4	1.3%
Parking Lots	11.0	0.2%	0.4	0.0%	11.4	0.2%
<b>Total</b>	<b>4,741.2</b>	<b>100.0%</b>	<b>1,285.2</b>	<b>100.0%</b>	<b>6,026.4</b>	<b>100.0%</b>

Source: MIG, LA County Assessor, and UrbanFootprint, 2020.





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## Exhibit 4.11-2 Existing Land Use 2020

Santa Fe Springs General Plan and Targeted Zoning Code Update  
Santa Fe Springs, California

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## Residential Land Uses

Residential uses within Santa Fe Springs are primarily concentrated in the western part of the City. Except for a cluster of residential uses along Telegraph Road, residential uses are generally located along the western and eastern borders of the Planning Area. There are no existing residential uses south of Imperial Highway. Single-family detached and attached residential uses make up the vast majority of the residential land use category (454 acres in the City and 1,307 acres in the Planning Area). The single-family residential average densities (number of residential dwelling units per acres, or du/ac) is approximately 7.5 du/ac. Orr and Day Road provides a good representation of many of Santa Fe Springs' residential communities. Most homes along Orr and Day Road were built in the 1950s, on lots averaging approximately 5,000 square feet. Santa Fe High School is also located along Orr and Day Road, directly serving the largest residential neighborhood in the City. Multi-family residential uses (more than one unit per/lot) generally occur along major roads and intersections such as Norwalk Boulevard and Telegraph Road in the western part of the City. As shown in Table 4.11-1 (Existing Land Use Acreages) Residential Density within the Planning Area), multi-family residential uses in the City cover 53 acres (92 acres in the Planning Area), with average densities at approximately 27.8 du/ac. Mobile home parks and assisted living developments (17 acres) make up a very small proportion of residential land uses.

**Table 4.11-2**  
**Residential Density within the Planning Area**

Residential Land Use Types	Average Residential Density	Number of Parcels	Average Parcel Size (acres/sq. ft.)
Single-Family Detached	7.5 du/ac	7,335	0.15 ac/6,500 sf
Single-Family Attached	16.6 du/ac	791	0.26 ac/11,300 sf
Multi-Family	27.8 du/ac	97	0.95 ac/41,400 sf
Mobile Home Parks	13.9 du/ac	2	4.1 ac/178,600 sf

Source: MIG, LA County Assessor, and UrbanFootprint, 2020.

## Commercial and Industrial Land Uses

Commercial uses make up 385 acres or 6% of the Planning Area. These uses are primarily concentrated around the borders of Santa Fe Springs, with clusters along Washington Boulevard and around the intersections of Telegraph Road at Day Road and Carmenita Road. The most prevalent commercial uses are retail establishments and shopping centers (226 acres), followed by business parks (83 acres), offices (38 acres), and public storage uses (23 acres). Industrial uses account for 3,426 acres, or 57 percent of the Planning Area. The vast majority (3,397 acres) of industrial uses are located within City limits. Industrial uses are centrally located in Santa Fe Springs, spanning the entire length of the City. Some commercial and residential uses lie scattered among industrial uses, with a cluster of residential uses located along Telegraph Road. Industrial land uses include light industrial, heavy industrial, warehousing and logistics, trucking, aggregate and cement, and oil extraction businesses. Light industrial (1,447 acres) and warehousing and logistics (1,238 acres) make up the majority of industrial uses in the City. The City has experienced an increase in warehousing and logistics uses in 2018-2020, reflecting broader economic trends. Certain industrial land uses, such as logistics and warehousing have large footprints and relatively greater impacts on the community in terms of truck traffic, air pollution, noise, and road damage, while generating less revenue compared to light industrial uses. Floor-area ratio (FAR) is used to describe the development intensity for commercial and industrial uses. FAR is the ratio of a building's total floor area to the size of the lot or parcel on which that building is located. A 0.5 FAR indicates that the floor area

of a building is half as large as the lot area. Table 4.11-3 (Non-Residential Intensity (Floor-Area-Ratio) within the Planning Area) shows the average FAR by non-residential use types within the Planning Area.

**Table 4.11-3  
Non-Residential Intensity (Floor-Area-Ratio) within the Planning Area**

Non-Residential Land Use Types	Average Floor-Area Ratio (FAR)	Number of Parcels	Average Parcel Size (acres)
Commercial Uses	0.163	243	0.8 ac
Office and Business Park Uses	0.234	79	1.6 ac
Light and Heavy Industrial Uses	0.328	1,346	1.3 ac
Warehousing and Logistics Uses	0.422	249	4.9 ac

Source: MIG, LA County Assessor, and UrbanFootprint, 2020.

### Public Facilities and Institutional Land Uses

Public and quasi-public uses include public schools, government offices, museums, and utilities. The total land area devoted to public facilities and institutional uses is 363 acres, or six percent of the Planning Area. Public and private schools (K-12) occupy 272 acres (5%) of the Planning Area.

### Park and Open Space Land Uses

Parks and open spaces make up 205 acres, or just over three percent of the Planning Area. The largest uses in the parks and open spaces category include parks (70 acres) and golf courses (97 acres). The other uses include open space (20 acres) and cemeteries (19 acres). Chapter 4.16 (Recreation) further describes park facilities within the Planning Area, including 85.3 acres of parkland managed by the City of Santa Fe Springs, which consists of Park and Public Facilities existing land uses.

### Other Land Uses

Other land uses such as utilities, storm drain facilities, railroad lines, parking lots, and vacant land (devoid of any structures) account for 231 acres, or 4% of the Planning Area. As noted previously, the Planning Area contains little vacant land (103.7 acres). The largest clusters of vacant land are located near the intersections of Telegraph Road and Bloomfield Avenue and Greenleaf Avenue and Los Nietos Road. Vacant lots across the Planning Area vary greatly in size. Some vacant properties are relatively large, having previously been used for light industrial, heavy industrial, and warehousing and logistics uses. Santa Fe Springs is built out, with few vacant lots. Future development will largely rely on infill development and the reuse or intensification of existing structures.

## 4.11.2 – REGULATORY FRAMEWORK

### Federal

**Clean Air Act.** The Federal Clean Air Act was enacted to protect and enhance air quality and promote the health and welfare of the public. The United States Environmental Protection Agency (EPA) has established ambient air quality standards for certain criteria pollutants, which are generally implemented by state and local agencies.



**Clean Water Action (Section 404).** Section 404(b) of the Federal Clean Water Act was established to preserve water quality and discourages the alteration or destruction of wetlands. This act requires that the United States Army Corps of Engineers (Army Corps) evaluate the impacts of discharge of dredged or fill materials into any water of the United States (U.S.). The Army Corps Wetlands Policy requires the implementation of mitigation measures for any impacts to designated wetland areas.

**National Pollutant Discharge Elimination System Permit Program.** The National Pollutant Discharge Elimination System (NPDES) program requires the owner or operator of any facility, or person responsible for any activity that discharges waste into the surface waters of the U.S. to obtain a NPDES permit from the Regional Water Quality Control Board, as mandated by the National Clean Water Act. The existing NPDES (Phase 1) stormwater program requires municipalities serving greater than 100,000 persons to obtain a NPDES storm water permit for construction projects greater than five acres. Phase II of the NPDES storm water regulations expanded the national program to smaller municipalities with populations of 10,000 or more and construction sites that disturb greater than one acre of land.

**Federal Endangered Species Act.** The Federal Endangered Species Act (ESA) was passed in 1973 and is administered by the U.S. Department of Fish and Wildlife Service. The ESA provides a process for listing species as endangered or threatened and establishes requirements for the protection of all listed species.

## State

**California Wetlands Policy.** The State Wetlands Policy, administered by the California Department of Fish and Wildlife under Fish and Game Code Sections 1601 to 1606, protects marshlands and other designated wetland areas, and requires mitigation for disturbance of wetland areas.

**California Endangered Species Act.** Similar to the Federal ESA, the California Endangered Species Act (CESA) was created to protect rare, threatened, and endangered species in California. The CESA was enacted in 1984 and is administered by the California Department of Fish and Wildlife.

## Regional

A number of regional plans influence land use planning in the City of Santa Fe Springs. Regional plans/policies created by planning agencies such as the Southern California Association of Governments (SCAG) are discussed below.

**Southern California Association of Governments (SCAG) Regional Plans and Policies.** The Southern California Association of Governments (SCAG) is responsible for regional planning in the southern California area. SCAG provides a framework to coordinate local and regional decisions regarding future growth and development and prepares future growth forecasts for the region. As the designated Metropolitan Planning Organization (MPO) for the area, SCAG is mandated by the Federal government to research and develop plans for transportation, growth management, hazardous waste management, and air quality based on the regional growth projections. SCAG is responsible for the production of a Regional Comprehensive Plan and Guide, a Regional Transportation Plan/Sustainable Communities Strategy, Regional Transportation Improvement Plan, and Growth Vision Report. In February of 2020, SCAG's Regional Council adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS or Plan). The Plan is a long-range

visioning plan that balances future mobility and housing needs with economic, environmental and public health goals (see below).

As SCAG is the largest MPO in the United States, it has sub-regional councils of government to provide for the subregions' land use and transportation planning at a more local level. The sub-regional council for Santa Fe Springs is the Gateway Cities Council of Governments (GCCOG).

**2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.** The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) is a long-term vision of how the region will address regional transportation and land use challenges and opportunities. The 2020 RTP/SCS identifies goals, which are intended to help carry out the vision for improved mobility, a strong economy, and sustainability. The guiding policies for the 2020 RTP/SCS are intended to help focus future investments on the best-performing projects and strategies to preserve, maintain, and optimize the performance of the existing transportation system.

## **Local**

### **2021 General Plan Update**

The GPTZCU contains the following Elements, goals, and policies related to the specific land use significance thresholds identified in Section 4.11.3.

#### *Land Use Element*

**Goal LU-1: A balanced community of thriving businesses, healthy neighborhoods, excellent community facilities, and interesting places.**

**Policy LU-1.1: Small Community Character.** Retain the City's small-town character by maintaining the scale of established residential neighborhoods and integrating new residential development, including multi-family and mixed use, into the community fabric.

**Policy LU-1.2: Economic Diversity.** Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.

**Policy LU-1.3: Downtown.** Create a thriving Downtown District that supports a complementary mix of residential and nonresidential uses and provides community gathering spaces.

**Policy LU-1.4: Transit-Oriented Communities.** Develop transit-oriented districts around commuter rail stations to maximize access to transit and create vibrant new neighborhoods.

**Policy LU-1.5: Land Use Transitions.** Apply appropriate screening, buffers, transitional uses, and other controls to transition industrial and commercial uses to any adjacent residential uses and thus reduce potential noise and air pollution impacts.

**Policy LU-1.6: Community Benefits.** Ensure that new development(s) provide a net community benefit and pays their fair share of fiscal impacts on infrastructure and services.

**Policy LU-1.7: Healthy Neighborhoods.** Improve community health by ensuring equal access to parks, affordable and good-quality fresh food and community facilities, and by reducing pollution burdens.

**Policy LU-1.8: Jurisdictional Consultation.** Consult with jurisdictions and agencies when proposed development projects and/or infrastructure improvements within the West Whittier/Los Nietos/South and South Whittier Sphere of Influences or along the City borders

that may affect the community.

**Goal LU-2: Industrial businesses that stimulate economic development and job growth.**

**Policy LU-2.3: Green Businesses.** Pursue businesses associated with the “green economy” and clean technology companies.

**Goal LU-3: Clean industrial businesses.**

**Policy LU-3.1: Hazardous Uses.** Regulate and monitor uses that use, store, produce, or transport toxic substances, unhealthy air emissions, and other pollutants or hazardous materials.

**Policy LU-3.2: Appropriate Siting.** Site heavy industrial, large warehouses, and trucking and logistics in areas where the location and roadway pattern will provide minimal impacts on residential and commercial uses.

**Policy LU-3.3: Freight and Industrial Green Technology.** Encourage technological solutions to reduce pollutants and airborne emissions associated with rail and road freight transport and other industrial operations.

**Policy LU-3.4: Repurpose Petroleum Production Lands.** Encourage the remediation and development of properties transitioning from petroleum production.

**Policy LU-3.5: Oil Fields.** Encourage efficient and compatible methods for extracting the remaining petroleum resources and the removal of unused oil field equipment and storage facilities.

**Policy LU-3.6: Environmental Preservation of Oil Field Sites.** Monitor and ensure that efficient and environmentally sound techniques are used in abandoning oil field sites.

**Policy LU-3.7: Contaminated Land Remediation.** Encourage the proper cleanup and remediation of lands that are contaminated, prioritizing cleanup near and within disadvantaged communities.

**Policy LU-3.8: Green Industrial Operations.** Encourage industrial businesses to utilize green building strategies, green vehicle fleets, energy-efficient equipment, and support renewable energy systems.

**Goal LU-10: Equitable access to and distribution of public facilities.**

**Policy LU-10.8: Sustainability Improvements.** Improve energy and water efficiency at all public facilities, structures, and parks, using data to benchmark progress, and utilize analytics to identify best practices.

*Environmental Justice Element*

**Goal EJ-1: Reduced exposure to air pollution and hazardous materials.**

**Policy EJ-1.1: Roadway Pollution Burdens.** Mitigate impacts on residential neighborhoods immediately adjacent to I-605 from noise and air pollutant emissions.

**Policy EJ-1.2: Truck Idling Restrictions.** Designate acceptable and unacceptable areas for freight trucking and diesel truck idling to limit impacts on disadvantaged communities already overburdened by air pollution.

**Policy EJ-1.3: Cleanup Sites.** Prioritize the cleanup of former landfill and contaminated lands within disadvantaged communities.

**Policy EJ-1.4: Industrial Pollution.** Reduce pollution exposure in residential neighborhoods by limiting industrial operations that generate potentially hazardous air pollutants.



**Policy EJ-1.5: Stationary Source Emissions.** Consult with California Air Resources Board and the South Coast Air Quality Management District to ensure the appropriate monitoring of stationary source emissions and to receive aid and assistance to reduce exposures to harmful air pollutants in disadvantaged communities.

**Policy EJ-1.6: Public Education.** Develop community programs to improve public awareness of State, County, regional and local agencies and resources to assist with air quality and other environmental quality concerns.

**Policy EJ-1.7: Emission Data Collection.** Coordinate with the South Coast Air Quality Management District to explore ways to initiate data collection efforts for a community emissions reduction and/or community air monitoring plan, including the identification of: information needed (new or updated), potential data sources and the resources needed, and strategies to engage residents and collect information.

*Circulation Element*

**Goal C-1: A multimodal mobility network that efficiently moves and connects people, destinations, vehicles, and goods.**

**Policy C-1.1: Multi-Modal.** Use a multimodal approach when pursuing street and other transportation network improvements, including accommodating pedestrians, cyclists, transit riders, and motor vehicles, and that accounts for land use and urban form factors that affect accessibility.

**Policy C-1.2: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.

**Policy C-1.3: Street Classification.** Designate a street's functional classification based upon its current dimensions, land use and urban form context, and priority for various users and transportation options.

**Policy C-1.4: Context-Sensitive Improvements.** Pursue context-sensitive Complete Streets strategies that recognize the City's various neighborhoods and community character and geographic complexity.

**Policy C-1.5: Transportation Priority.** Prioritize transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities.

**GOAL C-2: Streets designed and managed to ease access for all users.**

**Policy C-2.1: Accessibility.** Identify and evaluate the transportation system for potential improvements to accommodate seniors and disabled persons and to comply with ADA requirements.

**Policy C-2.2: Senior Transportation.** Identify multiple mobility options, including paratransit, to help improve access and connectivity for senior and/or disabled persons.

**Policy C-2.3: Rights-of-Way.** Use available public rights-of-way to provide wider sidewalks, bicycle lanes, trail facilities, and transit amenities.

**Policy C-2.4: Equity.** Plan for the equitable treatment of all transportation users when planning and constructing transportation projects through a transparent and fair process.

**Policy C-2.5: Universal Access:** Ensure accessibility of pedestrian facilities to the elderly and mobility impaired.

**Policy C-2.6: Increasing Access of Vulnerable Populations.** Identify strategies and physical improvements to remove mobility barriers and to reduce travel time for vulnerable populations, including low-income households, seniors, and children within all areas of the communities, but also prioritize Disadvantaged Communities areas.

**Policy C-2.7: Micromobility.** Plan for future micromobility within the City by considering use within public rights-of-way and parking facilities, address public safety, and utilize pilot programs and demonstrations to evaluate potential systems in the City.

**Policy C-2.8: Community Engagement.** Involve the community and expand education in transportation planning and project design decisions for improving the transportation infrastructure and mobility network.

**Policy C-2.9: Sidewalk Maintenance and Upkeep.** Ensure established sidewalks and related physical improvements are preserved and maintained to provide a comfortable, safe, and desirable experience.

**Goal C-3: Active transportation network: connected street network for pedestrians and cyclists.**

**Policy C-3.1: Promote Walking.** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

**Policy C-3.2: Pedestrian Design.** Design and operate sidewalks, streets and intersections to maximize pedestrian safety and comfort through a variety of street design and traffic management solutions.

**Policy C-3.3: Pedestrian Priority Zones.** Create pedestrian priority zones around transit stations and along heavily traveled corridors to connect community facilities, commercial centers, and activity areas.

**Policy C-3.4: Connectivity.** Require that new developments increase connectivity through convenient pedestrian and bicycling connections to the established and planned street network.

**Policy C-3.5: Innovative Bicycle and Pedestrian Connections.** Investigate the use of easements and/or rights-of-way along flood control channels, public utilities, railroads, and streets by cyclists and pedestrians.

**Policy C-3.6: Active Transportation Facilities.** Promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles.

**Policy C-3.7 Bicycle Facilities.** Plan for new shared-use paths, bicycle lanes, buffered bicycle lanes, bicycle routes, and bicycle boulevards that establish a comprehensive bicycle network citywide.

**Policy C-3.8: Bicycle Parking.** Establish standards for bicycling parking that include racks and locks and integrate bike parking facilities within all community facilities and activity areas, and consider parking reductions for commercial developments that provide bicycling parking.

**Policy C-3.9: San Gabriel River.** Improve connectivity to the San Gabriel River Trail, including access to parks and open spaces along the river.

**Policy C-3.10: Wayfinding.** Develop a comprehensive bicycle and pedestrian wayfinding signage and pavement marking system program to guide visual connectivity to destinations such as parks, schools, landmarks, transit stations, community facilities, and activity centers.

**Policy C-3.11: Sidewalks Gaps.** Prioritize adding new sidewalks to streets either lacking sidewalks on both sides of the street or on one side of the street, with added priority in disadvantaged communities.

**Policy C-3.12: Sidewalks Widening.** Evaluate widening sidewalks away from the curb to accommodate pedestrians along major transit routes and around planned and established transit stations.

**Policy C-3.13: Pedestrian and Bicycle Safety.** Prioritize street and sidewalk improvements along streets and intersections with high activity of vehicle collisions involving pedestrians and bicyclists.

**Policy C-3.14: Neighborhood Streets.** Design or retrofit streets to improve walkability, strengthen connectivity, and enhance community identity; emphasize the provision of high-quality pedestrian and bikeway connections to transit stops/stations, commercial centers, and local schools; and design new streets and consider traffic calming where necessary, to reduce neighborhood speeding.

**GOAL C-4: A comprehensive transit system that provides convenient and reliable transit access to residential neighborhoods and activity destinations.**

**Policy C-4.1: Transit Stops and Stations.** Develop approaches and coordinate with other agencies to create comfortable, functional, informational, and safe transit shelters for bus stops and rail stations.

**Policy C-4.2: Transit Rider Needs.** Consult with all transit agencies operating in the City to ensure bus services and facilities meet the needs of residents and the business community, specifically targeting specific populations such as residents in high transit ridership areas, senior populations, school-age children, and residents living in disadvantaged communities.

**Policy C-4.3: First/Last Mile.** Encourage first/last mile infrastructure improvements, mobility services, transit facilities and amenities, and signage/wayfinding solutions to all bus stops and transit stations.

**Policy C-4.4: Transit Improvement Priority.** Prioritize transit and bus connectivity and access improvements within disadvantaged communities.

**Policy C-4.5: Improve Transit Access.** Improve multi-modal access to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station, including bicycle, micromobility, and pedestrian connections and improvements.

**Policy C-4.6: Metro L Line Expansion.** Consult with Metro during the planning and construction phases of Metro's L line and station along Washington Boulevard to ensure improvements achieve the City's connectivity and land use objectives.

**Policy C-4.7: Metro C Line Expansion.** Consult with regional partners and Metro to encourage expansion of the Metro C Line from its terminus in Norwalk to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station.

**Policy C-4.8: Light Rail Stations.** Consult with Metro to establish appropriate light rail stations that consider local context and provide opportunities for attractive design, placemaking, and integrating public art and amenities that reflect the City of Santa Fe Springs' community and culture.

**Policy C-4.8: Transit.** Require new development to post current transit and bus schedules and operating system information within communal gathering areas to encourage greater participation in public transportation.



### 4.11.3 – SIGNIFICANCE THRESHOLDS

As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the GPTZCU could result in a significant impact if it:

- A. Physically divides an established community.
- B. Causes a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
- C. Causes substantial adverse cumulative impacts with respect to land use and planning.

### 4.11.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to land use and planning that could result from the implementation of the GPTZCU and recommends mitigation measures as needed to reduce significant impacts.

#### Established Communities

##### *Impact LAND-1 – Would the GPTZCU physically divide an established community?*

#### Analysis of Impacts

##### City-wide

The physical division of an established community typically refers to the construction of a physical feature (such as a new freeway, railway, or other large transportation projects) or the removal of a means of access (such as a bridge) that would impede or restrict movements within a community. It also may refer to policies that limit or preclude access between adjacent areas or neighborhoods within a city. The GPTZCU is a policy document designed to direct long-term growth within the Planning Area and does not propose major circulation changes that would restrict access to any particular areas of the City.

##### Key Opportunity Sites

The Washington/Norwalk site has local access from Washington Boulevard, Norwalk Boulevard, and Broadway. The Metrolink site has access from Imperial Highway and Bloomfield Avenue. The MC&C site has access from Bloomfield Avenue and Telegraph Road. The Koontz site has access from Florence Boulevard and Norwalk Boulevard. All four opportunity sites have direct local access and their development would not preclude or limit access in or around each of these sites.

##### General Plan Update

The GPTZCU includes several goals and policies in three different Elements (Land Use, Environmental Justice, and Circulation) which are intended to facilitate travel within the Planning Area with a variety of modes of access (transit, pedestrian sidewalks, and bicycle lanes), including Goals LU-1, LU-2, LU-3, LU-10, EJ-1, and C-1 through C-4. Therefore, with adherence to the above goals and policies, implementation of the GPTZCU would not physically divide an established community.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Plan Conflicts**

***Impact LAND-2 – Would the GPTZCU cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

### **Analysis of Impacts**

#### City-wide

This section includes a discussion of potential conflicts between the GPTZCU and applicable planning documents, which are described in Section 4.11.2 above. It should be noted that policy conflicts do not, in and of themselves, constitute a significant environmental impact. However, policy inconsistency is considered to be a significant adverse environmental impact when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect and it is anticipated that the inconsistency would result in a significant adverse *physical* impact. Please note that planning documents that pertain to specific technical topics (e.g., Air Quality) are discussed in those topical sections of this Draft EIR. The Draft General Plan Land Use Map is included with the Project Description (Section 3.0).

### **2020-2045 Regional Transportation Plan/Sustainable Communities Strategy**

The SCAG Regional Council adopted the 2020-2045 RTP/SCS in February 2020 and in May 2020 with slight revisions. The long-range visioning plan identifies several goals which are intended to help carry out the vision for improved mobility, a strong economy, and sustainability. These 2020-2045 RTP/SCS goals, and the GPTZCU's relationship to these goals, are presented in Table 4.11-4 (2020-2045 RTP/SCS Consistency Analysis). As shown in Table 4.11-4, the implementation of the GPTZCU would not cause a significant environmental impact due to a conflict with any regional (SCAG) land use-related policies adopted for the purpose of avoiding or mitigating an environmental effect.

The 2020-2045 RTP/SCS also includes growth projections for cities and counties within the region. Population growth associated with the GPTZCU would exceed the projected population growth forecast from the SCAG. Please also see Section 4.14, Population and Housing, for an analysis of potential population and housing impacts.

**Table 4.11-4  
2020-2045 RTP/SCS Consistency Analysis**

2016-2040 RTP/SCS	Consistency Analysis
RTP/SCS G1: Align the plan investments and policies with improving regional economic development and competitiveness.	<b>Consistent.</b> Implementation of the GPTZCU would result in an increase of over 1.5 million square feet of non-residential square footage, an increase of 4,572 dwelling units, an increase in population of 13,890, an increase of 4,788 employees, and 750 additional hotel/motel rooms. The GPTZCU includes the goal of creating a multimodal mobility network that efficiently moves and connects people, destinations, vehicles, and goods (Goal C-1).
RTP/SCS G2: Maximize mobility and access for all people and goods in the region.	<b>Consistent.</b> The GPTZCU includes several goals and policies addressing mobility including: streets designed and managed to ease access for all users (Goal C-2); a comprehensive transit system that provides convenient and reliable transit access to residential neighborhoods and activity destinations (Goal C-4); and a multimodal freight transportation system that facilitates the effective transport of goods while minimizing negative impacts on the community (Goal C-5).
RTP/SCS G3: Ensure travel safety and reliability for all people and goods in the region.	<b>Consistent.</b> The GPTZCU includes several goals and policies related to safety including: streets designed and managed to ease access for all users (Goal C-2); a comprehensive transit system that provides convenient and reliable transit access to residential neighborhoods and activity destinations (Goal C-4); street designs that accommodate transportation modes and users of all abilities (Goal C-6); and prioritization of transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities (Policy C-2.1).
RTP/SCS G4: Preserve and ensure a sustainable regional transportation system.	<b>Consistent.</b> The GPTZCU includes several goals and policies that address sustainability including: pursue a street rehabilitation plan that prioritizes street paving and resurfacing based on street condition, type of repair, cost effectiveness, and amount of vehicle and truck traffic that is implemented in an equitable manner (Policy C-6.2); and integrate a green street approach into street improvements to address/include stormwater management, urban greenery, and sustainable landscaping improvements. (Policy C-6.7).
RTP/SCS G5: Maximize the productivity of our transportation system.	<b>Consistent.</b> Implementation of the GPTZCU would result in an increase of over 1.5 million square feet of non-residential square footage, an increase of 4,572 dwelling units, an increase in population of 13,890, an increase of 4,788 employees, and 750 additional hotel/motel rooms. The GPTZCU includes several goals and policies that maximize the productivity of the transportation system including: a street network managed to minimize congestion and traffic impacts

	(Goal C-9); sufficient, well-designed, and convenient off-street parking facilities (Goal C-10); and the leverage of promising technological advances and changes in use of mobility services (Goal C-11).
RTP/SCS G6: Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	<b>Consistent.</b> The GPTZCU includes several goals and policies that address the environment and health including: an active transportation network with a connected street network for pedestrians and cyclists (Goal C-3); promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles; a transportation system designed to reduce vehicle miles traveled (Goal C-8); encouraging the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's regulations (Policy C-8.4); pursuing air quality conditions that improve over time (Goal OSC-4); support low emission solutions and use of alternative fuels to improve trucking fleet fuel efficiency (Policy OSC-4.2; identify specific activities that the City will undertake to reduce greenhouse gas emissions (Policy OSC-4.3); and minimize the air quality impacts of new development projects on established uses and nearby sensitive receptors (Policy OSC-4.4).
RTP/SCS G7: Actively encourage and create incentives for energy efficiency, where possible.	<b>Consistent.</b> The GPTZCU includes several policies that address energy efficiency, including: integrate a green street approach into street improvements to address/include stormwater management, urban greenery, and sustainable landscaping improvements (Policy C-6.7); promote cost-effective conservation strategies and programs that increase water use efficiency (Policy C-12.9); support building and site-improvements that reduce energy and water use and urban heat island effects (Policy S-5.4); prioritize alternative fuel vehicles for City use, and encourage new residential, commercial, and industrial development be equipped with vehicle electric charging stations (Policy OSC-4.6); and encourage energy-efficient operations and structures (Goal OSC-5).
RTP/SCS G8: Encourage land use and growth patterns that facilitate transit and active transportation.	<b>Consistent.</b> The GPTZCU includes several goals and policies related to transit and active transportation, including: a comprehensive transit system that provides convenient and reliable transit access to residential neighborhoods and activity destinations (Goal C-4) an active transportation network with a connected street network for pedestrians and cyclists (Goal C-3); promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles; a transportation system designed to reduce vehicle miles traveled (Goal C-8); encouraging the implementation of employer transportation demand management



	requirements included in the South Coast Air Quality Management District's regulations (Policy C-8.4); pursuing air quality conditions that improve over time (Goal OSC-4); support low emission solutions and use of alternative fuels to improve trucking fleet fuel efficiency (Policy OSC-4.2; identify specific activities that the City will undertake to reduce greenhouse gas emissions (Policy OSC-4.3); and minimize the air quality impacts of new development projects on established uses and nearby sensitive receptors (Policy OSC-4.4).
RTP/SCS G9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	This goal is not applicable to the GPTZCU.

### Existing City of Santa Fe Springs General Plan

The GPTZCU is a comprehensive update to the existing General Plan along with a focused update of the City's Zoning Ordinance. The changes to the 1994 Land Use Element include updates to goals, policies, and programs, land use designations, the stated intent of each designation, and certain development standards. The GPTZCU will include goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. The GPTZCU is intended to achieve the planning goals set forth in the Housing, Land Use, Safety, and Environmental Justice elements over the long-term. The amendments to these sections establish development capacity for various land uses and serve as a policy guide for determining the appropriate physical development and community services in the City.

The GPTZCU is intended to support the major goals established in the existing General Plan. Therefore, implementation of the GPTZCU would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

### Zoning and Subdivision Ordinances

The zoning ordinance and subdivision ordinance details land use regulations and development standards within the City. Consistent with State law, the Zoning Ordinance would need to be updated to reflect the changes in the General Plan Update. These revisions would ensure that development standards would be consistent with the development patterns identified within the General Plan. The implementation of the General Plan Update would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

### Key Opportunity Sites

The four opportunity sites are consistent with the GPTZCU which, in turn, is consistent with the various regional and local plans analyzed above. Therefore, development of the four opportunity sites would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

General Plan Update

The GPTZCU includes several goals and policies in three different Elements (Land Use, Environmental Justice, and Circulation) and the Housing Element which help the City be consistent with various regional and local planning efforts, including the SCAG 2020-2045 RTP/SCS, including providing a variety of travel modes within the Planning Area such as transit, pedestrian sidewalks, and bicycle lanes. Land Use Element Goals LU-1, LU-2, LU-3, and LU-10, Environmental Justice Goal EJ-1, and Circulation Goals C-1 through C-4, along with their supporting policies, help achieve this consistency. Therefore, with adherence to the above goals and policies, implementation of the GPTZCU would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None required.

**Cumulative Impacts**

***Impact LAND-3 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to land use and planning?***

**Analysis of Impacts**

Anticipated population growth in Los Angeles County would result in land use changes at the regional level. Implementation of the GPTZCU would result in the addition of lands designated for future housing units and non-residential square footage, which would help to meet the anticipated regional demand by directing development within the City. The GPTZCU also includes several policies to ensure that long-term sustainable development considers air quality, health of residents, existing infrastructure networks, and services. The GPTZCU also includes goals and policies to balance development with the preservation of environmental systems and open space areas. Additionally, as specific development projects are proposed under the GPTZCU, site specific environmental evaluations would occur which would evaluate potential environmental impacts, including land use impacts, and identify mitigation measures, if required. Therefore, the implementation of the GPTZCU, including development of the four key opportunity sites, would not cause a substantial adverse cumulative impact with respect to land use and planning.

Level of Significance Before Mitigation

Less Than Significant.

Mitigation Measures

No mitigation is required.

**4.11.5 – REFERENCES**

City of Santa Fe Springs. *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*. Prepared by MIG. August 2020.

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## 4.12 – Mineral Resources

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This EIR chapter addresses mineral resources impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are mineral resources impacts identified by the CEQA Guidelines: whether the GPTZCU will result in the loss of availability of a known mineral resource or result in the loss of availability of a locally-important mineral resource recovery site.

### 4.12.1 – ENVIRONMENTAL SETTING

#### Mineral Resource Zones

Minerals refer to aggregate resources, or rock, sand, and gravel, energy-producing fields, including oil, gas, and geothermal substances, and related mining operations. The California Department of Conservation (DOC) classifies land in the state into mineral resource zones based on the known or inferred mineral resource potential of that land (DOC, 2020a). The Planning Area is located in the San Gabriel Valley Production-Consumption (P-C) Region of the greater Los Angeles metropolitan area (DOC, 2020b). Land in the Planning Area has been classified by the California Division of Mines and Geology (CDMG) according to the presence or absence of significant sand and gravel deposits (suitable for use in construction-grade aggregate). The land classification is presented in the form of maps showing Mineral Resource Zones (MRZ). There are four MRZ classifications, MRZ-1 through MRZ-4 as described below:

- MRZ-1 are areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2 are areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- MRZ-3 are areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4 are areas where availability information is inadequate for assignment to any other MRZ-zone.

According to the Department of Conservation, a majority of the Planning Area is classified MRZ-1 meaning there are no significant mineral deposits present in these areas. The western portion of the Planning area is classified MRZ-3 meaning while these areas contain mineral deposits there is inadequate available data to determine their significance. There are no portions of the Planning Area that are designated MRZ-2 or MRZ-4. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area.

#### Oil Wells

Union Oil of California first drilled two dry holes in 1919 before hitting a successful oil well on its third attempt in 1921 (Santa Fe Springs, 2020). Within a year, the Santa Fe Springs oil field was considered one of the richest pools in petroleum history, and the City became a promoters' paradise. In its peak during the 1920s, the oil field produced as much as 60,000 barrels daily. By 1924, 81 million barrels of oil had been pumped from the ground. Since 1977, more than 40

different providers have maintained wells in the Santa Fe Springs oil field; however, the only active operator currently is E&B Natural Resources. Active oil wells (wells still extracting oil) are located in the central and eastern portions of the oil field, occupying approximately 10 city blocks, or 784 acres, as depicted in Exhibit 4.12-1, Oil Wells Within the Planning Area (2020). As shown in Table 4.12-1, Oil Wells Within the Planning Area (2020), idle wells are oil and gas wells which are not in use for production, injection, or other purposes but also have not been permanently sealed. Over 1,000 oil wells have been plugged in the City since the 1920s. A well is plugged by setting mechanical or cement plugs in the wellbore at specific intervals to prevent fluid flow.

**Table 4.12-1**  
**Oil Wells within the Planning Area (2020)**

Oil Wells	City	Sphere of Influence	Total
Active	221	7	228
Idle	88	0	88
Plugged	1,093	21	1,114
<b>Total</b>	<b>1,402</b>	<b>28</b>	<b>1,430</b>

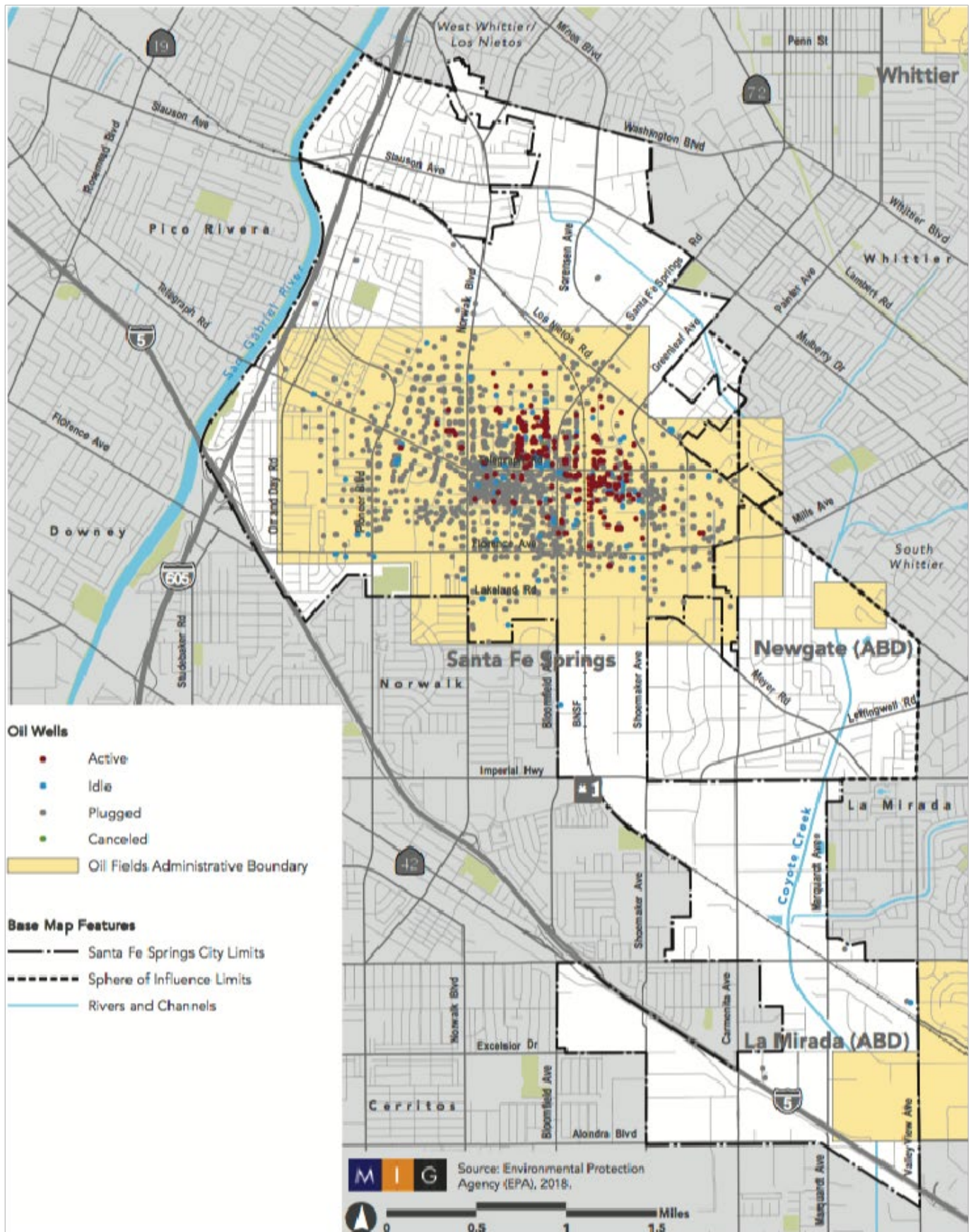
Source: California Department of Conservation, Geologic Energy Management Division, 2020.

#### 4.12.2 – REGULATORY FRAMEWORK

##### State

**Surface Mining and Reclamation Act of 1975.** The Surface Mining and Reclamation Act of 1975 (SMARA) was enacted by the California legislature to promote the conservation of the State's mineral resources and to ensure adequate reclamation of mined lands. Among other provisions, SMARA requires the State Geologist to classify land in California into Mineral Resource Zones (MRZ), according to the known or inferred mineral potential of the land. The process is based solely on geology, without regard to existing land use or land ownership. Upon completion of each study, the State Geologist submits the mineral land classification report to the State Mining and Geology Board, which transmits the information to appropriate local governments that maintain jurisdictional authority in mining, reclamation, and related land-use activities. Local governments are required to incorporate the report and maps into their general plans and consider the information when making land use decisions.

SMARA addresses the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. The Act applies to anyone, including government agencies, engaged in surface mining operations in California, including federally managed lands that disturb more than one acre or remove more than 1,000 cubic yards of material cumulatively from one site. Regulated mining activities include prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. The current General Plan incorporates the requirements and mineral classification and designation information of SMARA.



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**Exhibit 4.12-1 Oil Wells Within the Planning Area 2020**  
**Santa Fe Springs General Plan and Targeted Zoning Code Update**  
 Santa Fe Springs, California

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The California Department of Conservation, Division of Mines and Geology (DMG) ‘Mineral Land Classification Project’ publishes mineral resource maps which have proven to be of value in land use planning and mineral conservation. This is an ongoing process with updates taking place approximately every 10 years. DMG is also in the process of identifying lands throughout the county with the potential for mineral resource recovery and will be used by the County in identifying new mineral resource areas to help ensure their preservation.

## Local

### 2021 General Plan Update

The proposed GPTZCU contains the following goals and policies related to mineral resources:

#### *Land Use Element*

#### **Goal LU-3: Clean Industrial Businesses.**

**Policy LU-3.4: Repurpose Petroleum Production Lands.** Encourage the remediation and development of properties transitioning from petroleum production.

**Policy LU-3.5: Oil Fields.** Encourage efficient and compatible methods for extracting the remaining petroleum resources and the removal of unused oil field equipment and storage facilities.

**Policy LU-3.6: Environmental Preservation of Oil Field Sites.** Monitor and ensure that efficient and environmentally sound techniques are used in abandoning oil field sites.

**Policy LU-3.8: Green Industrial Operations.** Encourage industrial businesses to utilize green building strategies, green vehicle fleets, energy-efficient equipment, and support renewable energy systems.

#### *Safety Element*

#### **Goal S-3: Minimized exposure of residents, businesses, and habitats to hazardous materials and their deleterious effects.**

**Policy S-3.6: Oil Drilling and Production.** Promote the gradual consolidation and elimination of oil drilling and production sites to advance the City’s climate adaptation and resiliency strategies, local reduction of greenhouse gases, and land use goals.

### 4.12.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

- A. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- B. Result in the loss of availability of a local important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.
- C. Would the project cause substantial adverse cumulative impacts with respect to mineral resources?



#### **4.12.4 – IMPACTS AND MITIGATION MEASURES**

This section describes potential impacts related to the loss of availability of a known mineral resource that is of value to the region and the residents of the state and the loss of availability of a locally-important mineral resource recovery site.

##### **Loss of Statewide or Regional Mineral Resources**

***Impact MINERAL-1 – Would the GPTZCU result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?***

##### **Analysis of Impacts**

###### City-wide

According to the Department of Conservation, there are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area. In addition, the Department of Conservation indicates there are 228 active oil wells located within the Planning Area.

###### Key Opportunity Sites

Like the rest of the City, the four opportunity sites are not designated MRZ-2 so do not contain regionally significant mineral resources. In addition, three of these sites do not contain active oil wells, although the MC&C site has several active wells onsite plus active oil production land immediately adjacent to the east. When the MC&C site is developed, there will be reabandonment of wells and a change in zone.

###### 2021 General Plan Update

The proposed GPTZCU would not include physical changes to or the rezoning of any active well locations except for the MC&C site described above. Land Use Element Goal LU-3 and its Policies LU-3.3 through -3.6 address monitoring of well sites and transition as wells are no longer productive and are closed. Policy LU-3.8 deals with energy efficiency of industrial processes to help reduce overall energy use in the City. In addition, Safety Element Goal S-3 and its Policies S-3.3 and -3.6 also address transition of well sites to inactive status. Therefore, the GPTZCU would not result in the loss of availability of a known mineral resource that is of value to the region and the residents of the State.

##### **Level of Significance Before Mitigation**

Less than significant.

##### **Mitigation Measures**

None required.

##### **Loss of Locally Important Mineral Resources**

***Impact MINERAL-2 – Would the GPTZCU result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

**Analysis of Impact**

City-wide

According to the Department of Conservation, there are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area. In addition, the Department of Conservation indicates there are 228 active oil wells located within the Planning Area.

Key Opportunity Sites

Like the rest of the City, the four key opportunity sites are not designated MRZ-2 so do not contain regionally significant mineral resources. The General Plan also does not designate these sites as having mineral resources present. Three of these sites do not contain active oil wells, although the MC&C site has several active wells onsite plus active oil production land immediately adjacent to the east. When the MC&C site is developed, there will be reabandonment of wells and a change in zone.

2021 General Plan Update

The proposed GPTZCU would not include physical changes to or the rezoning of any active well locations except for the MC&C site described above. Land Use Element Goal LU-3 and its Policies LU-3.3 through -3.6 address monitoring of well sites and transition as wells are no longer productive and are closed. Policy LU-3.8 deals with energy efficiency of industrial processes to help reduce overall energy use in the City. In addition, Safety Element Goal S-3 and its Policies S-3.3 and -3.6 also address transition of well sites to inactive status. Therefore, the GPTZCU would not result in the loss of availability of a known mineral resource that is of value to the region and the residents of the State.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None required.

**Cumulative Impacts**

***Impact MINERAL-3 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to mineral resources?***

**Analysis of Impacts**

The proposed GPTZCU would not result in any impacts related to mineral resources. Because of the developed nature of the Planning Area, and because the GPTZCU would not impact mineral resources, there would also be no cumulative impacts with respect to mineral resources.

### **Level of Significance Before Mitigation**

No cumulative impact.

### **Mitigation Measures**

None required.

### **4.12.5 – REFERENCES**

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. (DOGGR). 2020. DOGGR Well Finder. Web: <http://maps.conservation.ca.gov/doggr/index.html#close>. [Accessed April 2021].

City of Santa Fe Springs, 2020. *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*. Prepared by MIG. August 2020.

Department of Conservation (DOC). 2021a. California Geological Survey (CGS) Warehouse: Mineral Land Classification. Web: <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>. [Accessed May 2021].

\_\_\_\_\_. 2021b. DOC Maps: Mines and Minerals. Web: <https://maps.conservation.ca.gov/mineralresources/>. [Accessed May 2021].

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## 4.13 – Noise

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The following section of the EIR provides pertinent background information on the nature of sound and vibration transmission; describes the existing noise environment in the Planning Area; summarizes applicable noise guidelines, standards, and regulations; and evaluates potential noise and vibration impacts that could result from implementation of the General Plan and Targeted Zoning Code Update (GPTZCU). Where necessary, this section includes mitigation measures that would reduce noise and vibration impacts associated with the Project.

### 4.13.1 – FUNDAMENTALS OF ENVIRONMENTAL ACOUSTICS

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as “noisy” or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, and so on. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50 \text{ decibels} + 50 \text{ decibels} \neq 100 \text{ decibels}$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * 10 \log \log \left( 10^{\left(\frac{50}{10}\right)} + 10^{\left(\frac{50}{10}\right)} \right) = 53 \text{ decibels}$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

## Sound Characterization

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz, most of the sounds humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter, known as the "A-weighting" or "A-weighted sound level," filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 4.13-1 for a list of common noise sources and their A-weighted noise levels.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level ( $L_{eq}$ ) descriptor is used to represent the average character of the sound over a period of time. The  $L_{eq}$  represents the level of steady-state noise that would have the same acoustical energy as the time-varying noise measured over a given time period.  $L_{eq}$  is useful for evaluating shorter time periods over the course of a day. The most common  $L_{eq}$  averaging period is hourly, but  $L_{eq}$  can describe any series of noise events over a given time period.

Variable noise levels are the values that are exceeded for a portion of the measured time period. Thus, the  $L_{01}$ ,  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$  descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The  $L_{90}$  value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, DNL (or  $L_{dn}$ ), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM), and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor's increased sensitivity to noise levels during quieter nighttime periods.

**Table 4.13-1  
Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet	105	
	100	
Gas lawn mower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noise urban area, daytime	75	
Gas lawn mower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher next room
	45	
Quiet urban nighttime	40	Theater, large conference room
Quiet suburban nighttime	35	
	30	Library
Quite rural nighttime	25	Bedroom at night
	20	
	15	Broadcast/recording studio
	10	
	5	
Typical threshold of human hearing	0	Typical threshold of human hearing

Source: Caltrans, 2013

### Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise-generating source. The strength of the source is often characterized by its “sound power level.” Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal “point” source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point

source. In contrast, a “line” source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called “excess attenuation.” Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

### **Noise Effects**

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it with the existing environment without the noise source, or the “ambient” noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

### **Groundborne Vibration and Noise**

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential groundborne noise generation.

#### **4.13.2 – Environmental Setting**

The City's existing General Plan Noise Element identifies the primary contributors to the City's noise environment include freeways, railroads, major and minor arterial roadways, and industrial land uses. This description is still accurate; Interstate 5 (I-5) and I-605 generally border the City's southern and western boundaries, respectively, and major arterials such as Telegraph Road and Santa Fe Springs Road/Bloomfield Avenue transect the City in east-west and north-south directions, respectively. Rail activities, including the Los Nietos Railyard and freight rail service, are prevalent in the City, and the City continues to support large areas of industrial development that contain machinery, equipment, and other manufacturing operations.

The principal noise source within the Planning Area is from vehicular and rail traffic. The level of noise generated by vehicular traffic generally varies according to the volume of traffic, the percentage of trucks, and average traffic speed. In general, a doubling of traffic volumes or an approximately seven mile per hour (mph) increase in speed will produce increased traffic noise levels by 3 dBA. In addition to traffic along Telegraph Road and the other major arterial roadways impacting the City, the Planning Area is also impacted by vehicular traffic from the I-5 and I-605 freeways. Both the Burlington Northern Santa Fe (BNSF) Railway and Union Pacific Railroad (UPRR) provide freight rail service through the City. UPRR also operates the Los Nietos Yard and the Valla railport.



The closest airport to the City is the Fullerton Municipal Airport, located approximately 2.6 miles southeast of the City.<sup>1</sup> The City is not located in any noise contour zone associated with this airport.

### Measured Ambient Noise Levels

The existing ambient noise levels in the Planning Area were monitored in May 2021 (MIG, 2021; see Appendix E). Ambient noise levels were measured with a Larson Davis SoundTrack LxT Type 1 sound level meter. Ambient noise measurements were collected in 1-minute intervals. Conditions during the monitoring were generally overcast or sunny during the daytime, with a daily high in the mid 70 to low 80 degrees Fahrenheit. Winds were generally calm or mild.

The ambient noise monitoring conducted for this EIR included two (2) long-term (LT) and 12 short-term (ST) measurements at locations selected to:

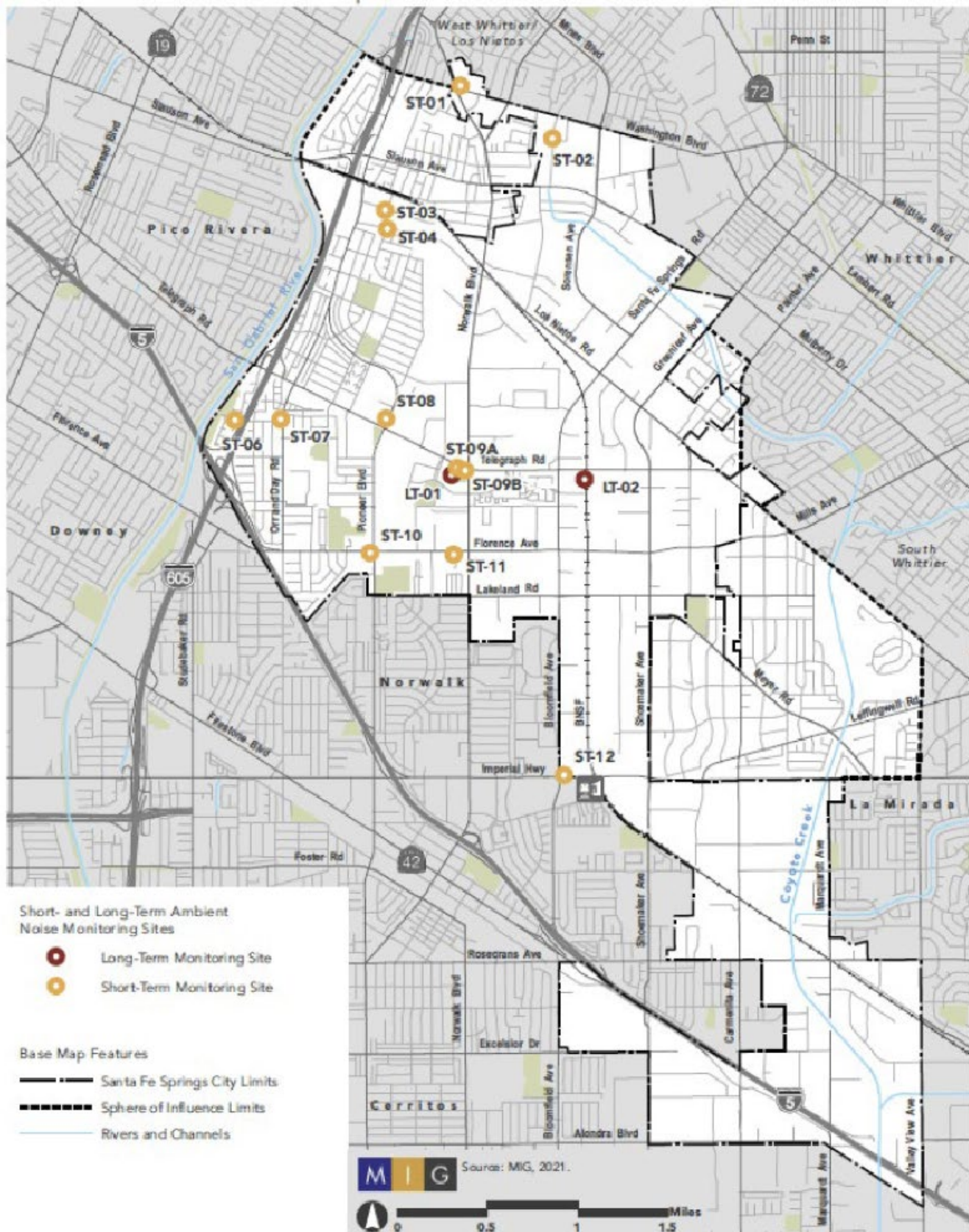
- Provide direct observations of existing noise sources in the vicinity of the Planning Area;
- Determine ambient noise levels in the vicinity of the Planning Area; and
- Evaluate potential project noise levels at nearby sensitive receptors (see “Noise Sensitive Receptors” below).

The ambient noise monitoring locations are shown on Figure 4.13-1 and described below.

- **LT-01** was at the Sculpture Garden located in the southwest corner of the intersection of Norwalk Boulevard and Telegraph Road. This location was approximately 350 feet from the centerline of Telegraph Road. The ambient noise levels measured at location LT-01 are considered representative of the CNEL in business park/commercial office areas of the city.
- **LT-02** was near the Telegraph Road UPRR overpass to the east of Bloomfield Avenue, along the eastern edge of the MC&C opportunity site. This location was approximately 44 feet from the centerline of the closest UPRR track and approximately 280 feet from the center of Telegraph Road. The ambient noise levels at location LT-02 are considered representative of the CNEL in oil development areas and properties adjacent to BNSF freight rail tracks.
- **ST-01** was in a commercial plaza parking lot at the intersection of Norwalk Boulevard and Washington Boulevard, in the Washington/Norwalk opportunity site. This location was approximately 115 feet from the center of Washington Boulevard. The ambient noise levels measured at location ST-01 are considered representative of background daytime noise levels in commercially developed areas of the city located along major arterial roadways.
- **ST-02** was near 8118 Allport Avenue, near commercial fabrication/warehouse land uses. The ambient noise levels measured at location ST-02 are considered representative of light industrial areas in the city.
- **ST-03** was at the intersection of Millergrove Drive and Enterprise Avenue, near industrial manufacturing land uses. The ambient noise levels measured at location ST-03 are considered representative of light industrial/manufacturing areas in the city.

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<sup>1</sup> This distance is as measured from the City’s southeastern boundary to the airport’s closest runway centerline.



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**Exhibit 4.13-1**

## Ambient Noise Monitoring Locations

**Santa Fe Springs General Plan and Targeted Zoning Code Update**

Santa Fe Springs, California



- **ST-04** was at the intersection of Morrill Avenue and Los Nietos Road, near a mix of light industrial/manufacturing, residential land uses and rail tracks. The ambient noise levels measured at ST-04 are considered representative of transitional land use areas in the city.
- **ST-05** was at the residential property at 11275 Roxabel Street. The ambient noise levels measured at ST-05 are considered representative of background daytime noise levels in residential areas near light industrial/manufacturing land uses in the city.
- **ST-06** was at the residential property at 11121 Davenrich Street. The ambient noise levels measured at ST-06 are considered representative of background daytime noise levels in residential areas of the city near the I-605 and the I-5 freeways (where barriers are present).
- **ST-07** was at the intersection of Orr and Day Road and Davenrich Street. The ambient noise levels measured at ST-07 are considered representative of typical arterial roadway traffic noise levels in the city.
- **ST-08** was adjacent to the commercial property at 10039 Pioneer Boulevard, near the intersection of Pioneer Boulevard and Telegraph Road. This location was approximately 50 feet from the center of Pioneer Boulevard and 280 feet from the center of Telegraph Road. The ambient noise levels measured at ST-08 are considered representative of commercial/office land uses in the city near major arterial roads.
- **ST-09 (A & B)** were near the intersection of Norwalk Boulevard and Telegraph Road. ST-09A was approximately 75 feet from the center of Telegraph Road and 315 feet from the center of Norwalk Boulevard. ST-09B was approximately 60 feet from the center of Telegraph Road and 85 feet from the center of Norwalk Boulevard. The ambient noise levels measured at ST-09 are considered representative of major arterial roads in the city.
- **ST-10** was located at the intersection of Pioneer Boulevard and Florence Avenue. The ambient noise levels measured at ST-10 are considered representative of major arterial roads in the city.
- **ST-11** was located at the intersection of Koontz Avenue and Florence Avenue, at the Koontz opportunity site. ST-11 was approximately 50 feet from the center of Koontz Avenue and 110 feet from the center of Florence Avenue. The ambient noise levels measured at ST-11 are considered representative of commercial/light industrial areas of the city along major arterial roads.
- **ST-12** was located in a commercial parking lot at the intersection of Bloomfield Avenue and Imperial Highway, in the Metrolink/TOC opportunity site. This location was approximately 52 feet from the center of Imperial Highway and 135 feet from the center of Bloomfield Avenue. The ambient noise levels measured at location ST-12 are considered representative of background daytime noise levels in commercially developed areas of the city located along major arterial roadways.

Based on observations made during the ambient noise monitoring, the existing noise environment in the Planning Area consists primarily of localized and regional transportation noise sources, including local traffic and freight rail activities. Away from major arterial and collector roads, local residential/commercial/industrial land use operations are the primary contributors to the local ambient noise environment. Table 4.13-2 and Table 4.13-3 summarize the results of the ambient noise monitoring conducted for this EIR.

**Table 4.13-2**  
**Summary of Measured Long-Term Ambient Noise Levels (dBA) in the Planning Area**

Site	L <sub>min</sub>	L <sub>max</sub>	Measured L <sub>eq</sub> Range (dBA) <sup>(A)</sup>			24-Hour CNEL
			Daytime (7 AM to 7 PM)	Evening (7 PM to 10 PM)	Nighttime (10 PM to 7 AM)	
LT-01	37.5	85.1	54.5 – 68.5	53.3 – 55.6	47.9 – 56.3	62.1
LT-02	42.1	97.6	52.9 – 74.0	72.5 – 75.1	65.2 – 71.6	77.1

Source: MIG (see Appendix E)

(A) Values are the lowest and highest measured average hourly values during the listed time. Monitoring occurred over a 24-hour period beginning on May 19 and ending on May 20, 2021.

**Table 4.13-3**  
**Summary of Short-Term Ambient Noise Levels (dBA) in the Planning Area**

Location	Start Time <sup>(A)</sup>	Duration	Measured Noise Level (dBA)							
			L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>	L <sub>1.6</sub>	L <sub>8.3</sub>	L <sub>25</sub>	L <sub>50</sub>	L <sub>90</sub>
ST-01	9:00 AM	30 Minutes	63.6	53.5	80.3	70.3	66.9	64.6	61.8	60.0
ST-02	8:26 AM	1 Hour	65.6	47.9	92.5	75.5	68.6	61.1	56.5	55.1
ST-03	9:45 AM	30 Minutes	68.3	57.2	92.8	75.7	71.4	68.0	62.5	60.6
ST-04	10:41 AM	15 Minutes	67.3	53.5	83.3	76.9	71.7	66.9	60.7	57.8
ST-05	10:23 AM	15 Minutes	52.0	47.9	61.1	58.1	54.5	51.9	50.9	50.4
ST-06	11:03 AM	30 Minutes	62.6	59.5	75.6	67.5	63.3	62.3	61.6	61.2
ST-07	1:43 PM	30 Minutes	70.4	54.0	93.6	76.9	73.2	69.7	65.4	62.9
ST-08	12:26 PM	30 Minutes	66.0	50.0	82.4	74.0	70.1	66.3	63.0	60.5
ST-09A	9:54 AM	35 Minutes	67.6	52.4	80.3	-- <sup>(B)</sup>	--	--	--	--
ST-09B	10:32 AM	15 Minutes	74.3	60.9	87.1	--	--	--	--	--
ST-10	2:30 PM	30 Minutes	72.8	55.9	88.7	82.2	76.8	72.4	68.7	65.5
ST-11	3:10 PM	30 Minutes	66.4	49.5	80.0	72.9	70.3	67.6	64.4	62.0
ST-12	4:15 PM	30 Minutes	72.7	60.7	93.0	80.1	75.9	72.7	68.7	66.9

Source: MIG (see Appendix E)

(A) Monitoring occurred on May 19 (ST-01, ST-07, ST-08, ST-09, ST-10, ST-11, and ST-12) and May 20, 2021 (ST-02, ST-03, ST-04, ST-05, ST-06).

(B) “—” indicates data was not collected for these metrics during the monitoring session.

As shown in Table 4.13-2 and Table 4.13-3, daytime noise levels were generally lowest near business park/commercial office and residential areas away from major roadways (LT-01, ST-05, and ST-06), and highest near major roads (ST-01, ST-04, ST-07, ST-08, ST-09, ST-10, ST-11, and ST-12), active light industrial/manufacturing operations (ST-02 and ST-03), and freight rail lines (LT-02).

#### Discussion on the Influence of Shelter in Place orders on Ambient Noise Monitoring

As shown in Table 4.13-2, the CNEL measured approximately 350 feet from Telegraph Road was 62.1 CNEL. These ambient noise measurements reflect the actual environmental conditions present during the monitoring. It is possible that May 2021 traffic volumes on roadways in the Planning Area were below typical conditions due to State public health orders

limiting gatherings, school openings, non-essential travel, and other activities intended to control the spread of COVID-19. These restrictions may have reduced traffic volumes on major highways by 20% to 40% in 2020 (Caltrans, 2020a, ITE, 2020, and U.C. Davis 2020); however, it is unknown what effect these orders had on traffic volumes during the May 2021 ambient noise monitoring. The California Department of Transportation (Caltrans) considers a doubling of total traffic volume to result in a three (3) dBA increase in traffic-related noise levels (Caltrans, 2013). Assuming traffic volumes could be approximately 20% higher than actual volumes during the ambient noise monitoring would, therefore, result in an approximate change in measured noise levels of 0.8 dBA, assuming vehicle traffic is the sole source of noise influencing the measurement and the vehicle fleet mix does not change substantially. For the purposes of this EIR analysis, however, no change to measured ambient noise levels have been made.

#### **Existing (2020) and Future (2040) Baseline Traffic Noise Levels**

Existing (Year 2020) traffic noise levels were computed using the U.S. Department of Transportation Federal Highway Administration's (FHWA) Traffic Noise Model (TNM), Version 3.0. The model uses traffic volume, vehicle mix, vehicle speed, roadway geometry, and other variables to compute 24-hour traffic noise levels at user-defined receptor distances from the roadway center. The TNM modeling conducted for this EIR incorporates worst-case assumptions about motor vehicle traffic and noise levels; specifically, calculations are based on "hard" site conditions and do not incorporate any natural or artificial shielding.

Information on existing average daily traffic volumes was obtained for a subset of roadway segments from the vehicle miles travelled (VMT) analysis prepared for the Project (Fehr and Peers, 2021a and 2021b). Traffic noise levels were estimated for typical daytime (7 AM to 7 PM), evening (7 PM to 10 PM), and nighttime (10 PM to 7 AM) hours using hourly distributions modeled by Fehr and Peers. The mix of automobiles (95%), medium trucks (2%), heavy duty trucks (1%), and motorcycles (2%) assigned to the roadway system was determined based on EMFAC2021 vehicle populations for the Los Angeles County (South Coast) sub area. Roadway segments (sections of road between two specific intersections) were modeled as straight-line segments without any flow controls. Modeled noise levels, therefore, represent free-flow traffic conditions. Vehicles were assumed to travel the posted speed limit on each modeled roadway segment.

The VMT analysis prepared for the GPTZCU also includes an analysis of future traffic conditions that would occur in Year 2040, based on continued implementation of the City's current General Plan at the land use development intensities permitted by the current General Plan. The future baseline Year 2040 traffic noise levels were estimated using the same methodology as described for the existing year 2020 traffic noise analysis. Traffic noise levels were computed using TNM, Version 3.0 and the same roadway geometry factors assumed for 2020 traffic noise levels; however, traffic volumes and fleet mix percentages were updated based on road segment volumes from the VMT analysis and EMFAC2021 vehicle populations for Year 2040.

Modeled traffic noise levels for existing (Year 2020) and future (Year 2040) baseline traffic noise levels are shown in Table 4.13-4. Please refer to Appendix E for detailed information on existing 2020 and future 2040 traffic noise modeling assumptions.

**Table 4.13-4**  
**Existing (2020) and Future (2040) Baseline Traffic Noise Levels**

<b>Road / Segment</b>	<b>Year 2020</b>		<b>Year 2040</b>		<b>Net Change</b>	
	<b>ADT</b>	<b>CNEL<sup>(A)</sup></b>	<b>ADT</b>	<b>CNEL<sup>(A)</sup></b>	<b>ADT</b>	<b>CNEL</b>
<b>Bloomfield Avenue</b>						
Telegraph Road to Florence Avenue	20,001	69.7	22,195	70.3	2,194	0.6
Florence Avenue to Imperial Highway	24,828	68.6	26,225	69.5	1,397	0.9
<b>Carmenita Road</b>						
Painter Avenue to Telegraph Road	25,535	67.2	24,335	67.5	-1,199	0.3
Telegraph Road to Florence Avenue	23,562	67	22,749	67.2	-813	0.2
Florence Avenue to Meyer Road	23,471	67.7	22,168	67.9	-1,303	0.2
Meyer Road to Leffingwell Road	29,381	68.4	25,976	68.3	-3,404	-0.1
Leffingwell Road to Imperial Highway	39,516	71.8	36,751	71.7	-2,766	-0.1
Imperial Highway to Rosecrans Avenue	35,753	72.2	33,949	72.2	-1,804	0
Rosecrans Avenue to I-5 NB Ramps	40,250	71.9	37,613	72.1	-2,637	0.2
I-5 NB Ramp to Firestone Boulevard	46,283	71.5	43,064	71.9	-3,219	0.4
Firestone Boulevard to Alondra Boulevard	35,819	69.8	35,009	71.7	-810	1.9
<b>Florence Avenue</b>						
Telegraph Road to Carmenita Road	39,243	70.3	37,968	70.7	-1,275	0.4
Carmenita Road to Bloomfield Avenue	37,624	72.6	36,697	72.8	-927	0.2
Bloomfield Avenue to Pioneer Boulevard	36,185	71.6	34,045	71.6	-2,140	0
Pioneer Boulevard to Fairford Avenue	47,563	72.5	45,181	72.7	-2,382	0.2
<b>Imperial Highway</b>						
Valley View Avenue to Carmenita Road	34,293	70.7	31,238	70.6	-3,055	-0.1
Carmenita Road to Leffingwell Road	28,538	69.9	25,412	70	-3,126	0.1
Leffingwell Road to Bloomfield Avenue	63,521	73.2	56,725	73.1	-6,795	-0.1
<b>Greenleaf Avenue</b>						

#### 4.13 – Noise

Mulberry Drive to Los Nietos Road	1,049	52.6	4,816	60.4	3,767	7.8
Los Nietos Road to Telegraph Road	8,761	61.5	11,420	62.9	2,658	1.4
<b>Lakeland Road</b>						
Carmenita Road to Laurel Avenue	3,413	60.8	4,883	62.3	1,470	1.5
Laurel Avenue to Painter Avenue	5,607	61.3	5,691	61.9	83	0.6
Painter Avenue to Shoemaker Avenue	1,499	57.3	3,105	60.2	1,606	2.9
Shoemaker Avenue to Bloomfield Avenue	8,961	63.1	8,207	63	-754	-0.1
Bloomfield Avenue to Norwalk Boulevard	5,034	59.7	3,402	58.5	-1,632	-1.2
Norwalk Boulevard to Pioneer Boulevard	6,675	60	6,895	61	219	1
<b>Mulberry Drive</b>						
Painter Avenue to Santa Fe Springs Road	46,306	70.3	41,163	70	-5,143	-0.3
<b>Norwalk Boulevard</b>						
Mines Street to Washington Boulevard	23,601	69.1	25,441	69.8	1,840	0.7
Washington Boulevard to Slauson Avenue	39,325	68.7	37,243	69.1	-2,082	0.4
Slauson Avenue to Los Nietos Road	37,475	72.3	37,714	72.8	240	0.5
Los Nietos Road to Telegraph Road	22,285	68.6	21,337	69.1	-948	0.5
Telegraph Road to Florence Avenue	34,414	71.4	30,596	71.1	-3,817	-0.3
Florence Avenue to 4th Street	34,192	70.8	30,834	70.7	-3,358	-0.1
<b>Painter Avenue</b>						
Mulberry Drive to Wallburg Street	28,295	67.5	24,903	67.2	-3,392	-0.3
<b>Pioneer Boulevard</b>						
Saragosa Street to Washington Boulevard	20,713	66.3	23,111	66.6	2,398	0.3
Washington Boulevard to I-605 NB Ramp	23,358	66.3	23,217	66.5	-141	0.2
I-605 NB Ramp to Slauson Avenue	29,191	68.6	29,237	68.4	46	-0.2
Slauson Avenue to Orr and Day Road	11,764	62.8	13,984	64.3	2,219	1.5
Orr and Day Road to Arlee Avenue	3,460	55.8	4,923	59.2	1,463	3.4
Arlee Avenue to Florence Avenue	13,515	66.8	14,503	67.6	988	0.8
Florence Avenue to Lakeland Road	25,308	67.2	22,432	67.7	-2,876	0.5



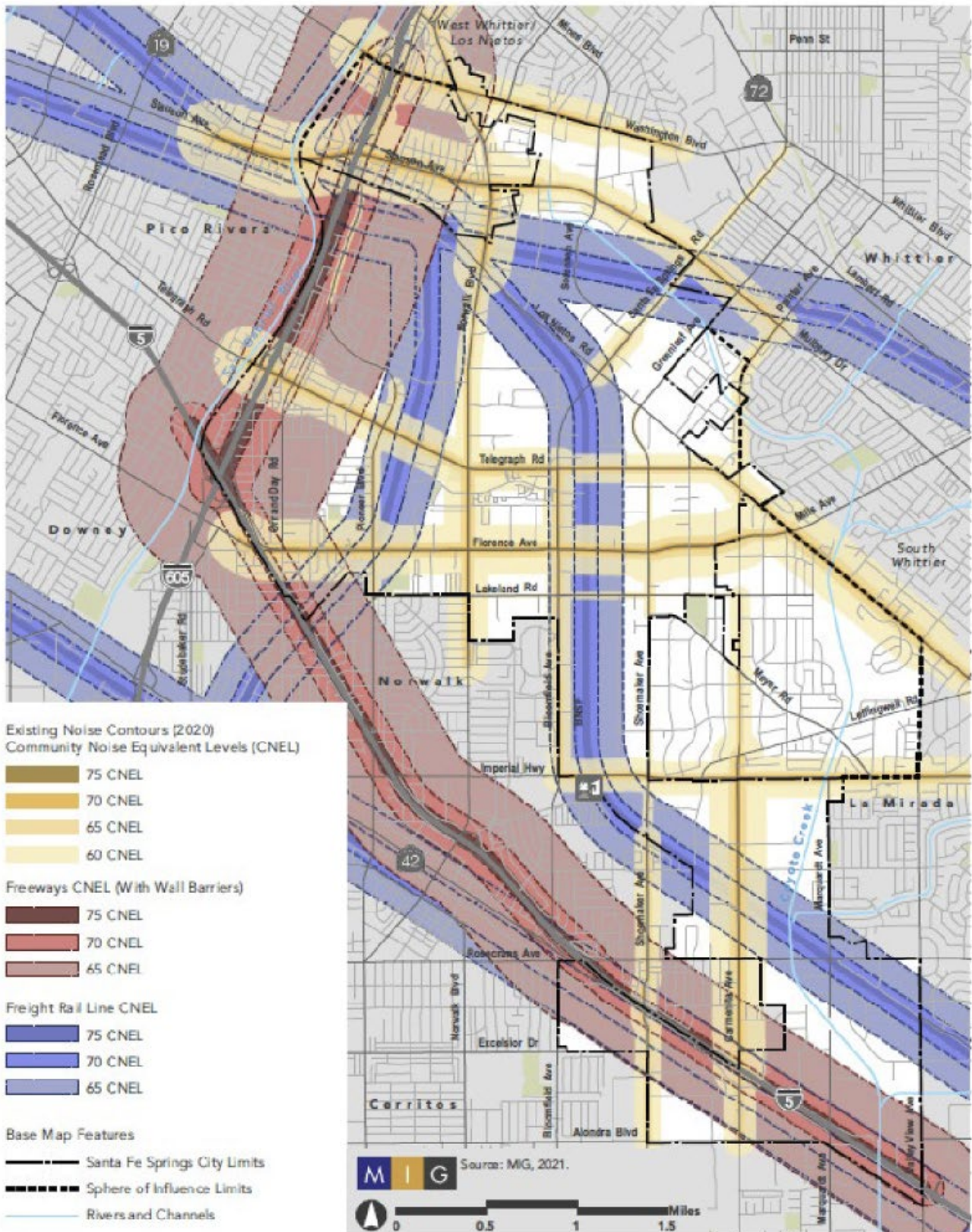
<b>Santa Fe Springs Road</b>						
Mulberry Drive to Sorensen Avenue	13,219	64.8	14,729	65.8	1,510	1
Sorensen Avenue to Telegraph Road	17,930	68.9	21,847	70	3,916	1.1
<b>Shoemaker Avenue</b>						
Telegraph Road to Florence Avenue	6,751	62.3	8,964	63.7	2,213	1.4
Florence Avenue to Meyer Road	14,516	65.6	12,297	64.7	-2,218	-0.9
Meyer Road to Sunshine Avenue	2,460	59.3	6,434	63.9	3,973	4.6
Sunshine Avenue to Imperial Highway	4,388	61.9	8,504	65.4	4,116	3.5
Rosecrans Avenue to UPRR Rail Crossing	12,128	65	12,706	66.2	577	1.2
UPRR Rail Crossing to Alondra Boulevard	16,817	68.8	16,626	69.5	-191	0.7
<b>Slauson Avenue</b>						
Santa Fe Springs Road to Sorensen Avenue	40,395	70.5	36,946	70.3	-3,450	-0.2
Sorensen Avenue to Dice Road	35,508	69.4	33,784	69.5	-1,724	0.1
Dice Road to Norwalk Boulevard	44,435	72	41,503	72	-2,932	0
Norwalk Boulevard to Pioneer Boulevard	36,075	71.3	35,907	71.5	-168	0.2
Pioneer Boulevard to Passons Boulevard	59,668	73.4	56,869	73	-2,799	-0.4
<b>Telegraph Road</b>						
Leffingwell Road to Valley View Avenue	35,959	70.7	35,320	70.8	-639	0.1
Valley View Avenue to Mills Avenue/Florence Avenue	55,133	72.6	51,469	72.5	-3,664	-0.1
Mills Avenue/Florence Avenue to Carmenita Road	45,275	70.3	43,922	70.2	-1,354	-0.1
Carmenita Road to Bloomfield Avenue	36,250	69.3	35,040	68.8	-1,210	-0.5
Bloomfield Avenue to Orr and Day Road	45,497	71	43,226	70.7	-2,271	-0.3
Orr and Day Road to True Avenue	68,209	72.9	68,037	73	-172	0.1
<b>Washington Boulevard</b>						
Calobar Avenue/Rivera Road to Sorensen Avenue	31,546	69.7	30,926	69.6	-619	-0.1
Sorensen Avenue to Norwalk Boulevard	41,856	71.1	38,593	76.4	-3,263	5.3



#### 4.13 – Noise

Norwalk Boulevard to Pioneer Boulevard	55,795	72	54,341	72	-1,454	0
Pioneer Boulevard to San Gabriel River	61,348	72.5	59,204	72.2	-2,144	-0.3
<b>Interstate 5</b>						
Valley View Avenue to Rosecrans Avenue (Without Barrier)	173,000	86.5	178,193	86.7	5,193	0.2
Valley View Avenue to Rosecrans Avenue (With Barrier)	173,000	75.5	178,193	75.7	5,193	0.2
Rail track to San Gabriel River (Without Barrier)	192,000	86.5	197,764	86.7	5,764	0.2
Rail track to San Gabriel River (With Barrier)	192,000	76.1	197,764	76.2	5,764	0.1
<b>Interstate 605</b>						
I-5 to City Limit (Without Barrier)	268,000	87.7	276,045	87.8	8,045	0.1
I-5 to City Limit (With Barrier)	268,000	78.0	276,045	78.1	8,045	0.1
Source: MIG, 2021 (see Appendix E)						
(A) CNEL values for road segments are estimated 50 feet from the center of the nearest travel direction, excepting I-5 and I-605, which are measured 150 feet from the center of the freeway right-of-way.						

The results of the traffic noise modeling indicate that existing traffic noise levels within the Planning Area are highest along Carmenita Road, Florence Avenue, Imperial Highway, Norwalk Boulevard, Slauson Avenue, Telegraph Road, and Washington Boulevard.



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## Exhibit 4.13-2 Existing Noise Contours (Year 2020)

Santa Fe Springs General Plan and Targeted Zoning Code Update  
Santa Fe Springs, California



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### Existing (2020) and Future (2040) Baseline Railroad Noise Levels

BNSF and UPRR maintain freight rail lines in the western (leading to the UPRR Los Nietos Yard), central (leading to the BNSF Pico Rivera Yard, and northern parts of the City (leading to the UPRR Valla Yard). In addition, there are numerous active and inactive rail spur lines serving industrial properties along the BNSF freight rail line, as well as numerous at-grade crossings in the City. Finally, the Metrolink commuter rail system uses the BNSF rail line that generally runs in a north-south direction through the center of the city. Existing land uses along these freight rail corridors consist of a mix of residential, commercial, and industrial buildings that are setback varying distances from the center of the railroad tracks.

Railroad noise is generated from a variety of sources. The locomotive engine's propulsion system generates noise from mechanical and electrical systems as well as exhaust pipes. The interaction of wheels with the track produces various noises, particularly where the wheel encounters a flaw or defect along smooth wheel / track surfaces. Finally, train horns and railroad crossing warning devices generate short but loud (up to 105 dBs for train horns) alerts pursuant to federal safety regulations.

Existing railroad noise levels were computed using the Federal Railroad Administration's CREATE model, which is based on noise calculation methods contained in the FTA's Transit Noise and Impact Assessment document, but includes adjustments to account for the greater locomotive horsepower typically associated with freight trains, as well as differences in freight train schedules, weight, and total length (FTA 2006, HMMH, 2006). The model uses train operating characteristics (locomotive type, speed, trains per daytime and nighttime), track characteristics (e.g., jointed or welded track, elevated or at grade track), and crossing information to compute hourly and 24-hour traffic noise levels at user-defined receptor distances from the center of the railroad track. No natural or human-made noise shielding or barriers (e.g., topography, vegetation, berms, walls, or buildings or other attenuation measures) were accounted for, and therefore modeled noise levels are considered "worst case" railroad noise conditions along the length of each corridor. Trains were assumed to travel 35 miles per hour along the rail corridor. The existing rail noise contours are included on Figure 4.13-2. The distances to the CNEL contours for existing rail operations are shown in Table 4.13-5. Please refer to Appendix E for detailed information on rail noise modeling assumptions.

**Table 4.13-5**  
**Existing (Year 2020) Rail Noise Level Contour Distances**

Railroad	Existing Trains Per Day	CNEL at 50 feet (dBA) <sup>(A)</sup>	CNEL Contour and Distance from Roadway Center (in Feet)			
			75 dBA	70 dBA	65 dBA	60 dBA
Freight Rail Line (with Metrolink)	24	74	40	126	397	1,256
Source: MIG, 2021 (See Appendix E).						
(A) All CNEL values at listed distances are measured from the center of the modeled rail track.						

The results of the rail noise modeling indicate that existing rail noise levels along the City's freight rail lines are estimated to be approximately 74 CNEL at a distance of 50 feet from the center of the railroad tracks. In addition to this, previous noise monitoring conducted for the City's existing General Plan (in 1994) measured noise levels in the vicinity of the Los Nietos Yard of approximately 57 to 58 dBA  $L_{eq}$ .

The 2018 California State Rail Plan acknowledges that freight train service will increase over time (Caltrans, 2018). Accordingly, the amount of daily freight trains operating in the City is presumed to double by 2040. Future rail noise levels were computed using the same methodology used to calculate existing rail noise levels, except that freight train activity was doubled to reflect state forecasted increases in freight rail activity. Year 2040 rail activity noise levels are estimated to increase by approximately 3 dBA to approximately 77 CNEL at a distance of 50 feet from the center of the rail tracks.

#### *Metro Gold Line Extension Discussion*

In February 2020, LA Metro considered options for the Eastside Transit Corridor Phase 2 Project and selected the Washington Alternative, which would extend the Gold Line along Washington Boulevard to a new terminus at Lambert Road in the City of Whittier. Existing City land uses along the potential Gold Line extension along Washington Boulevard are primarily commercial. The proposed GPTZCU would allow new mixed-use land uses in the vicinity of the potential Gold Line extension.

Although Metro is evaluating the Washington Alternative, its future remains uncertain. Metro is performing an environmental review of the Washington Alternative; however, Metro has not committed to potential construction timelines and funding is still needed for the extension project. In addition, Metro continues to conduct feasibility studies for other potential short- and long-term mobility solutions in the San Gabriel Valley (Metro, 2021). For these reasons, the potential Gold Line Extension is considered speculative and is not addressed further in this EIR.

#### **Other Non-Transportation Noise Sources**

Non-transportation sources also contribute to the City's existing noise environment. Commercial and industrial land uses located throughout the City, schools and outdoor park and recreation facilities, and residential land uses generate noise from daily operations of landscaping equipment, stationary sources such as heating, ventilation, and air conditioning (HVAC) equipment, business deliveries, solid waste pickup services, etc. Such sources are considered local sources of noise that only influence the immediate surroundings. Large event facilities can also generate non-transportation noise sources that influence the surrounding environment.

#### **Noise Sensitive Receptors**

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, motels and hotels, hospitals and health care facilities, school facilities, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. In general, potential noise-sensitive receptors within the City include:

- Existing low- and medium-density residential receptors within the City;
- Existing elementary and intermediate schools, and education or institutional facilities; and
- Existing parks and recreational facilities, including, but not limited to, Santa Fe Springs Park, Los Nietos Park, and Little Lake Park.

In addition to existing sensitive noise receptors, the proposed GPTZCU would increase development density to provide for new residential and mixed use residential and commercial opportunities in certain areas of the City, such as the four opportunity sites described in Section 3.5.

### 4.13.3 – REGULATORY FRAMEWORK

#### Federal

**Federal Transit Administration (FTA).** No federal regulations apply to noise or vibration from the proposed project, but the FTA's 2018 *Transit Noise and Vibration Impact Assessment Manual* document sets groundborne vibration annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings where people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for “frequent” events (occurring more than 70 times per day, such as a rapid transit project), “occasional” events (occurring between 30 to 70 times per day), and “infrequent” events (occurring less than 30 times per day). The FTA's vibration annoyance criteria are summarized in Table 4.13-6.

**Table 4.13-6**  
**FTA Ground-Borne Vibration Impact Criteria for General Assessment**

Land Use Category/Type	Impact Level (Velocity Decibels)		
	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional buildings	75 VdB	78 VdB	83 VdB
Source: FTA 2018			

#### State

**California Building Standards Code.** The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that sets forth various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room.

**California Green Building Standards Code.** The California Green Building Standards Code is Part 11 to the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for nonresidential development that may be applicable to the Project.

- Section 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dBA  $L_{eq}$  (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC)



rating of at least 45 (or an outdoor indoor transmission class [OITC] of 35), with exterior windows of a minimum STC of 40.

- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA  $L_{eq}$  pursuant to Section 5.507.4.1.1 shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA  $L_{eq}$  in occupied areas during any hour of operation. This requirement shall be documented by an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

**California Department of Transportation (Caltrans).** The California Department of Transportation's (Caltrans) Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans 2020b). Chapters Six and Seven of this manual summarize vibration detection and annoyance criteria from various agencies and provide Caltrans' recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 4.13-7 and Table 4.13-8.

**Table 4.13-7**  
**Caltrans' Vibration Threshold Criteria for Building Damage**

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.12 to 0.2
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans 2020b		

**Table 4.13-8**  
**Caltrans' Vibration Threshold Criteria for Human Response**

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Slightly perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severe/Disturbing	2.0	0.7 (at 2 Hz) to 0.17 (at 20 Hz)
Very disturbing	--	3.6 (at 2 Hz) to 0.4 (at 20 Hz)
Source: Caltrans 2020b		

## Local

**City General Plan.** The proposed Circulation (C), Environmental Justice (EJ), Land Use (LU), and Noise (N) Elements of the Santa Fe Springs General Plan Update contain the following goals and policies related to noise and vibration.

- **Goal C-5: A Multi-modal Freight Transportation System that Facilitates the Effective Transport of Goods While Minimizing Negative Impacts on the Community.**
  - **Policy C-5.2: Minimize Community Impacts.** Investigate means to establish buffers such as walls, landscape screening, and/or barriers along truck, rail, and freeway routes, and adjacent to rail yards to minimize noise, vibration, and aesthetics impacts.
- **Goal EJ-1: Reduced Exposure to Air Pollution and Hazardous Materials**
  - **Policy EJ-1.1: Roadway Pollution Burdens.** Mitigate impacts on residential neighborhoods immediately adjacent to I-605 from noise and air pollutant emissions.
  - **Policy EJ-3.5: Weatherization Programs.** Assist residents in disadvantaged communities to retrofit their homes to be more energy efficient, weatherproof, and better protected from air and noise pollution.
  - **Policy EJ-3.8: Reduce the Source Noise.** Consider noise attenuation measures and techniques addressed by the Noise Element and other feasible attenuation measures not addressed as potential mitigation measures to reduce the effect of noise on future residential and other-noise sensitive land uses to an acceptable noise level.
- **Goal LU-1: A Balanced Community of Thriving Businesses, Healthy Neighborhoods, Excellent Community Facilities, and Interesting Places**
  - **Policy LU-1.5: Land Use Transitions.** Apply appropriate screening, buffers, transitional uses, and other controls to transition industrial and commercial uses to any adjacent residential uses and thus reduce potential noise and air pollution impacts.
- **Goal N-1: Reduced Traffic and Train Noise**
  - **Policy N-1.1: Freeway and Roadway Noise.** Incorporate into transportation planning programs noise reduction measures that can reduce noise impacts on residential neighborhoods from surface transportation sources, including such features as noise barriers and walls, insulation, green buffers and berms, and paving technologies that reduce vehicle noise.
  - **Policy N-1.2: Residential Noise Impacts.** Update truck routes and redesignate routes to reduce noise exposure in residential neighborhoods and on sensitive community noise receptors that are within noise zones of 70 CNEL or higher.
  - **Policy N-1.3: Electric Vehicles.** Support efforts that will reduce vehicular noise through programs that increase the percentage share of electric vehicles on roadways.
  - **Policy N-1.4: Quiet Road Surfaces.** Incorporate into surface roadway design materials that absorb tire noise.
  - **Policy N-1.5: Building Sound Insulation.** Encourage sound insulation in new and established residential buildings adjacent to the freeways, railroads, and arterials to improve the outdoor-to-indoor noise environment. Prioritize mitigation in disadvantaged communities.
  - **Policy N-1.6: Bus Noise.** Support the efforts of Metro to use quiet bus technologies and to route bus lines in a manner that avoids noise impacts on residential neighborhoods.
  - **Policy N-1.7: Garbage Trucks and Services.** Award garbage collection franchise contracts in part on the ability of service providers to minimize noise by using quiet and non-polluting collection vehicles and other noise-reducing strategies.



- **Policy N-1.8: Railway Noise and Vibration Impacts.** Support the soundproofing and retrofitting of homes adjacent to railways and railyards by incorporating wall insulation, installing sound-blocking windows and doors, adding indoor and/or outdoor soundproof curtains or panels, and other similar technologies and sound controls.
- **Policy N-1.9: Railway Barriers.** Incorporate physical barriers between residential uses and railways and rail yards, including planting extensive vegetation barriers, adding earth berms, installing sound walls, and other mitigation strategies to minimize air pollution and noise and vibration impacts.
- **Goal N-2: Land Use Decisions that Minimize Noise Exposure**
  - **Policy N-2.1: Noise Standards.** Revisit noise standards in the Municipal Code to ensure they sufficiently address community noise conditions, issues, and concerns for various land uses.
  - **Policy N-2.2: Land Use Compatibility.** Utilize the noise/land use compatibility standards (Table N-1) as a guide in land use planning for the review of development applications.
  - **Policy N-2.3: Noise Studies.** Require developers of projects that are considered potential sources of noise, or when projects are proposed next to existing or planned noise-sensitive land uses to prepare an acoustical study that describes the existing and future noise environments and defines the noise-reducing design incorporated into the project that will achieve a noise environment consistent with City standards and guidelines.
  - **Policy N-2.4: Truck Access.** Require new industrial and commercial developments and/or remodels to address proximity to residential uses, through the site design, by locating truck access at the maximum practical distance away from residential uses and with adequate noise shielding provided to achieve noise standards.
  - **Policy N-2.5: Noise-Generating Industrial Facilities.** Locate noise-generating industrial facilities at the maximum practical distance from residential neighborhoods. Use setbacks between noise-generating equipment and noise-sensitive uses and limit the operation of noise-generating activities to daytime hours where such activities may affect residential uses.
- **Goal N-3: Quieter Neighborhoods**
  - **Policy N-3.1: Noise Enforcement.** Enforce City regulations intended to mitigate noise-producing activities, reduce intrusive noise, and alleviate noise deemed a public nuisance.
  - **Policy N-3.2: Noise Reduction Technology.** Require new City equipment purchases or facilities operations that utilizes noise reduction technology to comply with noise performance standards.
  - **Policy N-3.3: Construction Noise.** Ensure construction noise does not cause an adverse impact by requiring that noise mitigation techniques be incorporated into all construction-related activities and by limiting the permitted hours of construction activity.
  - **Policy N-3.4: Home Retrofits.** Develop a program to assist with the retrofit of residences adjacent to freeways to achieve suitable interior noise conditions.

The Table N-1 noise/land use compatibility guidelines referenced in Policy N-2.2 are reproduced as Table 4.13-9 below.

**Municipal Code.** Municipal Code Title XV (Land Usage), Chapter 155 (Zoning), Section 155.421 establishes that it is the policy of the City to prohibit unnecessary, excessive, and annoying noises from all sources subject to its police power.

- Section 155.422 (Exemptions from Noise Control Provisions) sets forth that the following activities are exempt from the noise control provisions of the Municipal Code's noise performance standards:
  - Activities conducted on public parks, public playgrounds, and public or private school grounds including but not limited to school athletics and school entertainment events.
  - Occasional outdoor gatherings, public dancing shows, and sporting and entertainment events provided said events are conducted pursuant to any required permit or City Council authorization.
  - Any mechanical device, apparatus, or equipment when used, related to, or connected with emergency work.
  - Any activity to the extent regulation thereof has been preempted by State or Federal law.

Section 155.424 (Permitted Noise Levels) sets forth that the noise level caused by any device, instrument, vehicle, machinery, operation, use, or activity shall not exceed the levels shown in Table 4.13-10 except as provided by the Municipal Code.

Table 4.13-9

**City of Santa Fe Springs General Plan Update Noise/Land Use Compatibility Guidelines**

Land Use Category	Community Noise Exposure Limit (CNEL dBA)						
	50	55	60	65	70	75	80
Residential: Single and mobile homes	A	A	B	C	C	D	D
Residential: Multifamily	A	A	B	C	C	D	D
Mixed Use: Multifamily, commercial, and office	A	A	B	B	C	C	D
Lodging: Hotels and motels	A	A	A	B	B	C	D
Schools, libraries, places of worship, hospitals, and assisted living facilities	A	A	B	C	C	D	D
Entertainment: Auditoriums, concert halls, amphitheaters, music shells, and meeting halls	B	B	C	C	D	D	D
Recreation: playgrounds, neighborhood parks	A	A	A	B	C	D	D
Golf courses and cemeteries	A	A	A	A	B	C	C
Office: business and professional services	A	A	A	B	B	C	D
Commercial: retail trade, restaurants, bars, entertainment activities, commercial services	A	A	A	A	B	B	B
Industrial: wholesale, manufacturing, utilities, transportation, communications	A	A	A	A	A	A	A
Key:							
A – Normally Acceptable	No special noise reduction requirements assuming standard construction techniques.						
B – Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.						
C – Normally Unacceptable	New construction is discouraged. If new construction does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.						
D – Clearly Unacceptable	New construction or development should generally not be undertaken.						
Source: City of Santa Fe Springs General Plan Noise Element, Table N-1							

Table 4.13-10

## City of Santa Fe Springs Municipal Code Permitted Noise Levels (dBA)

Receiving Area	Daytime (7 AM to 10 PM)					Nighttime (10 PM to 7 AM)				
	Maximum Cumulative Minutes Duration in Any 1-Hour Period <sup>(A)</sup>				Absolute Maximum	Maximum Cumulative Minutes Duration in Any 1-Hour Period <sup>(A)</sup>				Absolute Maximum
	30	15	5	1		30	15	5	1	
Outdoor Noise at Lot Line of:										
Any School, Church, or Hospital	45	50	55	60	65	45	50	55	60	65
Any other use in the:										
A-1, R-1, or R-3 Zone	50	55	60	65	70	45	50	55	60	65
C-1 or C-4 Zone	60	65	70	75	80	55	60	65	70	75
ML, PF, or BP Zone	60	65	70	75	80	60	65	70	75	80
M-1 or M-2 Zone	70	75	80	85	90	70	75	80	85	90
Residential Building Interior										
A-1 or R-1 Zone	45	50	55	60	65	45	50	55	60	65
R-3 Zone	45	50	55	60	65	45	50	55	60	65
Source: Santa Fe Springs Municipal Code, Section 155.424(E), modified by MIG.										
(A) Sound levels at or above each decibel level given in the table shall not occur for a duration longer than that given in the corresponding column heading.										

- Section 155.425 (Special Noise Sources) establishes the following provisions:
  - *Radios, television sets, and similar devices:* It is unlawful for any person within the city to use or operate such devices so as to create any noise which would cause the noise level to exceed the ambient noise level a maximum of five (5) dBA at the boundary of any property within a residential zone, the boundary of any private residential open space, or within the common outdoor area of any multiple residential development (Section 155.425 (A)).
  - *Construction of Buildings and Projects:* It is unlawful for any person within a residential zone, or within a radius of 500 feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects or to operate any pile driver, power shovel, pneumatic hammer, derrick,

power hoist, or any other construction type device between the hours of 7 PM of one day and 7 AM the next day (Section 155.425 (B)).

- *Maintenance*: It shall be unlawful for any person, including City and utility crews, to perform maintenance of real property, other than emergency work between 7 PM of one day and 7 AM the following day if such maintenance activity produces noise above the ambient level at any lot line of property within a residential zone (Section 155.425 (B)).
- Section 155.426 (Proposed Development Project) sets forth that if there is reason to believe a new development project may not conform with the permitted noise level standards contained in the Chapter 155 of the Municipal Code an acoustical analysis (noise study) may be required as part of the building permit or other approval procedures.
- Section 155.427 (Waivers from Noise Requirements) provides waivers from the noise control requirements of Chapter 155 of the Municipal Code may be authorized by a conditional use permit for a period not to exceed two years subject to reasonable terms, conditions, and requirements and other findings specified in Section 155.427 of the Municipal Code.
- Section 155.428 (Vibrations), sets forth that ground vibration shall not be harmful or injurious to a use or surrounding property and prohibits vibration that is perceptible without instruments along property lines or other boundaries of a lease agreement.

#### 4.13.4 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, Project implementation would have a significant impact related to noise or vibration if it would result in:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- b) Generation of excessive groundborne vibration or groundborne noise levels; or
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

With regard to criteria (a), the proposed project would result in a significant construction and/or operational noise impact if it would:

- Conflict with or violate any applicable provision of Municipal Code Title XV, Chapter 155;
- Conflict with or violate any applicable standard or policy in the City's General Plan Update Noise Element;
- Generate operational traffic noise levels that increase ambient noise levels at off-site locations by:
  - 5 dBA or more where the ambient noise level would change from normally acceptable to conditionally acceptable (or worse);
  - 3 dBA or more where the existing ambient noise would change from conditionally acceptable to normally unacceptable; or

- 1 dBA or more where the existing ambient noise level is already normally unacceptable or would change from normally unacceptable to clearly unacceptable.

With regard to criterion (b), the proposed project would result in a significant construction and/or operational vibration impact if it would:

- Generate construction-related vibration levels that exceed Caltrans' guidance for potential building damage (see Table 13-7); or
- Generate construction-related vibration levels that exceed FTA or Caltrans' criteria for human annoyance (see Table 13-6 and 13-8, respectively).

With regard to criterion (c), the proposed project would expose people living or working in the Plan Area to excessive airport-related noise levels if it would conflict with an applicable airport land use compatibility plan or otherwise expose people to excessive airport-related noise levels from a private air facility.

#### 4.13.5 – IMPACTS AND MITIGATION MEASURES

This section describes potential noise and vibration impacts associated with implementation of the GPTZCU and recommends mitigation measures as needed to reduce significant impacts. Noise-related impacts from future development pursuant to general plans can be divided into short-term construction-related impacts and long-term noise exposure impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction with future development allocated by the plan. Long-term noise exposure is associated with major noise sources (e.g., traffic, trains, other transit, aircraft, and stationary sources) and changes in noise levels that may occur in the city as a result of implementation of the GPTZCU.

##### Existing Noise Regulations

***Impact NOISE-1 – Would the project result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

##### Analysis of Impacts

Project implementation would involve construction that would result in temporary noise generation, primarily from the use of heavy-duty construction equipment.

The Project allows for more mixed-use and higher density developments and allows for an increase of the overall amount of development (both residential units and non-residential square footage) within the Planning Area. As described in Chapter 3, Project Description (see Table 3-2), the proposed GPTZCU is estimated to increase residential dwelling units (+4,572 units), office land uses (+364,000 square feet), hotel/motel uses (+750 rooms) and industrial land uses (+383,500 square feet) in the Planning Area over an approximately 20-year period, while also reducing commercial land uses (-80,000 square feet) in the Planning Area. The proposed change in land uses is expected to increase population (+13,890 residents) and jobs (+4,788 jobs) in the Planning Area.

The GPTZCU would focus new development along major corridors (e.g., Telegraph Road, Washington Boulevard) and key opportunity areas (Washington Boulevard/Norwalk TOC, Metrolink TOC, MC&C site, and Koontz site). Although the Project would focus on new

development in certain areas, future individual construction and development projects could occur throughout the Planning Area over the approximately 20-year span of the GPTZCU. These projects could occur on any property (based on land uses allowed by the GPTZCU) and could affect existing or future land uses, including potentially sensitive residential, commercial, park, or school land uses. Thus, this analysis addresses the potential for the Project to result in temporary construction noise impacts, wherever they might occur.

Since individual project-specific information is not available at this time, potential short-term (construction-related) noise impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and retail development. Potential construction source noise and vibration levels were developed based on methodologies, reference noise levels, typical equipment usage, and other operating factors documented and contained in the Federal Highway Administration's (FHWA) Construction Noise Handbook (FHWA 2006), Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2020b). Reference levels are noise emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Construction activities associated with potential development projects could include: staging, demolition, site preparation (e.g., land clearing), fine and mass grading, utility trenching, foundation work (e.g., excavation, pouring concrete pads, drilling for piers), material deliveries (requiring travel along City roads), building construction (e.g., framing, concrete pouring, welding), paving, coating application, and site finishing work. In general, these activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as (but not limited to) backhoes, tractors, loaders, graders, excavators, rollers, cranes, material lifts, generators, and air compressors. These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas. Some heavy equipment would consist of mobile equipment such as a loader and excavator that would move around work areas; other equipment would consist of stationary equipment (e.g., cranes or material hoists/lifts) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems, and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.
- Vehicle trips, including worker, vendor, and haul truck trips. These trips are likely to primarily occur on key arterial roadways like Bloomfield Avenue, Carmenita Road, Florence Avenue, Norwalk Boulevard, Pioneer Boulevard, Telegraph Road and Washington Boulevard.

Table 4.13-11 presents the noise levels associated with the typical types of construction equipment that could be used in the Planning Area for future individual projects.

**Table 4.13-11**  
**Typical Construction Equipment Noise Levels (dBA)**

Equipment	Reference Noise Level at 50 Feet ( $L_{max}$ ) <sup>(A)</sup>	Percent Usage Factor <sup>(B)</sup>	Predicted Noise Levels ( $L_{eq}$ ) at Distance <sup>(C)</sup>					
			50 Feet	100 Feet	200 Feet	300 Feet	400 Feet	500 Feet
Auger Drill Rig	85	0.2	78	72	66	62	60	58
Backhoe	80	0.4	76	70	64	60	58	56
Boring Jack Power Unit	80	0.5	77	71	65	61	59	57
Bulldozer	85	0.4	81	75	69	65	63	61
Compact roller	80	0.2	73	67	61	57	55	53
Compressor	80	0.4	76	70	64	60	58	56
Concrete Mixer	85	0.4	81	75	69	65	63	61
Crane	85	0.16	77	71	65	61	59	57
Delivery Truck	84	0.4	80	74	68	64	62	60
Excavator	85	0.4	81	75	69	65	63	61
Front End Loader	80	0.4	76	70	64	60	58	56
Generator	82	0.5	79	73	67	63	61	59
Horizontal Boring Hydraulic Jack	80	0.25	74	68	62	58	56	54
Impact Pile Driver (low)	95	0.2	88	82	76	72	70	68
Impact Pile Driver (high)	101	0.2	94	88	82	78	76	74
Man Lift	85	0.2	78	72	66	62	60	58
Paver	85	0.5	82	76	70	66	64	62
Pneumatic tools	85	0.5	82	76	70	66	64	62
Pumps	77	0.5	74	68	62	58	56	54
Roller	85	0.2	78	72	66	62	60	58
Scraper	85	0.4	81	75	69	65	63	61
Tractor	84	0.4	80	74	68	64	62	60
Vacuum Truck	85	0.4	81	75	69	65	63	61
<p>Sources: Caltrans 2013 and FHWA 2010</p> <p>(A) <math>L_{max}</math> noise levels based on manufacturer's specifications.</p> <p>(B) Usage factor refers to the amount of time the equipment produces noise over the time period.</p> <p>(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans, 2009: <math>L_{eq}</math> (hourly) = <math>L_{max}</math> at 50 feet – <math>20\log(D/50)</math> + <math>10\log(UF)</math>, where: <math>L_{max}</math> = reference <math>L_{max}</math> from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.</p>								



Construction noise impacts generally occur when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction durations last over extended periods of time. Demolition, site preparation, and grading phases typically result in the highest temporary noise levels due to the use of heavy-duty equipment such as bulldozers, excavators, graders, loaders, scrapers, and trucks. As shown in Table 4.13-11, the worst-case  $L_{eq}$  and  $L_{max}$  noise levels associated with the operation of construction equipment are predicted to be approximately 82 and 85 dBA, respectively, at a distance of 50 feet from the equipment operating area. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time and in close proximity. The concurrent operation of two or more pieces of construction equipment would result in noise levels of approximately 85 to 88 dBA at a distance of 50 feet from equipment operating areas<sup>2</sup>.

The magnitude of each individual future project's temporary and periodic increase in ambient noise levels would be dependent upon a number of project-specific factors that are not known at this time, including: the amount and type of equipment being used; the distance between the area where equipment is being operated and the location of the specific land use or receptor where noise levels are being evaluated; the time of day construction activities are occurring; the presence or absence of any walls, buildings, or other barriers that may absorb or reflect sound waves; the total duration of the construction activities; and the existing ambient noise levels near construction areas. For example, a noise level of 88 dBA  $L_{max}$  would be similar to typical  $L_{max}$  levels measured throughout the Planning Area, but sustained  $L_{eq}$  levels of 85 dBA would be approximately 10 to 20 dBA above daytime ambient conditions along key roadways (e.g., ST-1, ST-04, ST-07, ST-08 to ST-12, see Table 4.13-3), and up to 30 dBA above daytime ambient conditions away from major roadways (e.g., LT-01, ST-05, and ST-06, see Tables 4.13-2 and 4.13-3). Typically, sustained construction noise levels of 80 to 85 dBA or higher would require the implementation of construction noise control practices such as staging area restrictions (e.g., siting staging areas away from sensitive receptors), equipment controls (e.g., covered engines and use of electrical hook-ups instead of generators), and/or the installation of temporary noise barriers of sufficient height, size (length or width), and density to achieve targeted noise reductions. Construction noise controls, however, would be dependent on project-specific equipment characteristics and the extent to which construction activities would occur near noise-sensitive receptors and land uses.

The City's proposed updated Noise Element focuses on allowing Santa Fe Springs residents to enjoy quiet neighborhoods and includes measures that protect residents from excessive noise levels (including construction noise) that could disturb and disrupt human activities and affect the physical and psychological health of individuals. Table 4.13-12 summarizes the proposed GPTZCU goals and policies that address construction noise within the city.

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<sup>2</sup> As shown in Table 4.13-11, a single bulldozer provides a sound level of 81 dBA  $L_{eq}$  at a distance of 50 feet; when two identical sound levels are combined, the noise level increases to 84 dBA  $L_{eq}$  and when three identical sound levels are combined, the noise level increases to 86 dBA  $L_{eq}$ . These estimates assume no shielding or other noise control measures are in place at or near the work areas.

**Table 4.13-12**  
**Proposed GPTZCU Policies Pertaining to Construction Noise**

<b>Plan Element</b>	<b>Goal</b>	<b>Policy/Program</b>	<b>How does the General Plan Avoid or Reduce the Impact?</b>	<b>Applicable Significance Criteria</b>
Noise	N-2: Land Use Decisions that Minimize Noise Exposure	N-2.1: Noise Standards. Revisit noise standards in the Municipal Code to ensure they sufficiently address community noise conditions, issues, and concerns for various land uses.	Enforces provisions of the Santa Fe Springs Municipal Code that are intended to control loud and unnecessary noises that may affect and/or be a detriment to residents' public health, comfort, convenience, safety, welfare, and prosperity.	a) Generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.
	N-3: Quieter Neighborhoods	<p>N-3.1: Noise Enforcement. Enforce City regulations intended to mitigate noise-producing activities, reduce intrusive noise, and alleviate noise deemed a public nuisance.</p> <p>N-3.3 Construction Noise. Ensure construction noise does not cause an adverse impact by requiring that noise mitigation techniques be incorporated into all construction-related activities and by limiting the permitted hours of construction.</p>	<p>Enforces provisions of the Santa Fe Springs Municipal Code that are intended to control loud and unnecessary noises that may affect and/or be a detriment to residents' public health, comfort, convenience, safety, welfare, and prosperity.</p> <p>Requires noise mitigation techniques be incorporated into future construction activities and limits hours of construction.</p>	a) Generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.

Proposed GPTZCU Policies N-2.1, N-3.1, and N-3.3 establish the overall goal and intent of the City to protect noise sensitive uses by limiting construction noise levels. Although neither the Santa Fe Springs Municipal Code or proposed GPTZCU establish specific, numeric noise standards (e.g., 90 dBA  $L_{eq}$ ) for construction activities, the GPTZCU sets forth a requirement to assess and minimize construction noise levels as part of the development review process.

Furthermore, Santa Fe Springs Municipal Code Section 155.425 limits the hours of construction activities to 7 AM to 7 PM. The City's existing Municipal Code requirements and proposed GPTZCU policies would ensure construction activities do not occur during the most sensitive time periods (e.g., evening and nighttime periods) and require future discretionary projects to assess and minimize construction noise levels consistent with City goals, policies, and code standards.

Future development under the GPTZCU would result in construction activities that could temporarily increase ambient noise levels in the vicinity of the project by 10 dB or more. The City's existing Municipal Code requirements and proposed GPTZCU policies would ensure construction activities do not occur during the most sensitive time periods (e.g., evening and nighttime periods) and require future discretionary projects to assess and minimize construction noise levels consistent with City goals, policies, and code standards. This impact is considered less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

***Impact NOISE-2 – Would the project result in generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Analysis of Impacts

Project implementation could have the potential to change the existing types and intensity of land uses within the Planning Area. These potential land use changes could increase the number of residents and employees. This possible increase in population and employment could lead to increased vehicle traffic on the local roadway system, which could result in traffic-related noise levels that pose land use compatibility issues or result in a substantial permanent increase in traffic-related noise levels throughout the Planning Area. Project implementation could also involve increases in stationary noise and other sources of noise within the Planning Area. These potential effects are evaluated below.

**Increases in Traffic and Rail Noise Levels**

Although the GPTZCU in itself does not authorize any specific development project or increase in existing vehicular traffic levels, the City contracted with a professional transportation engineering firm (Fehr and Peers) to conduct travel demand modeling associated with the proposed GPTZCU land use changes (Fehr and Peers, 2021b; see Chapter 4.17, Transportation, and Appendix F). The travel demand modeling prepared for the Project provides a sufficient level of detail to generally evaluate the potential future increases in traffic-related noise levels associated with Project growth.

Future 2040 GPTZCU traffic noise levels were computed using the same methodology (TNM Version 3.0) and data sources used to calculate existing (Year 2020) and future (Year 2040) baseline traffic noise levels (see Section 4.13.2), except that 2040 GPTZCU traffic levels were obtained from the travel demand modeling conducted for the Project and entered into the traffic noise model.

The proposed GPTZCU does not authorize nor does it increase any freight rail operation because such operations are outside the jurisdictional authority of the City. Nonetheless, as described in Section 4.13.2, the 2018 California State Rail Plan acknowledges that freight train service is anticipated to double by 2040. If this were to occur, rail noise levels along BNSF and UPRR rail lines could increase to 77CNEL at a distance of 50 feet from the center of the railroad track.

Future transportation noise contours and the distances to the modeled transportation noise CNEL contours are shown in Figure 4.13-3. In addition, Table 4.13-14 summarizes the net change in Year 2040 ADT and traffic noise levels that would occur with implementation of the GPTZCU. Refer to Appendix E for detailed transportation noise modeling results.

**Table 4.13-13**  
**GPTZCU Transportation Noise Contour Distances (Year 2040)**

<u>Road or Rail Segment</u>	<u>Predicted CNEL at 50 Feet (dBA)</u>	<u>CNEL Contour and Distance from Road Centerline in Feet</u>			
		<b>75</b>	<b>70</b>	<b>65</b>	<b>60</b>
<b>Bloomfield Avenue</b>					
Telegraph Road to Florence Avenue	69.5	14	45	141	446
Florence Avenue to Imperial Highway	68.7	12	37	117	371
<b>Carmenita Road</b>					
Painter Avenue to Telegraph Road	67.5	9	28	89	281
Telegraph Road to Florence Avenue	67.3	8	27	85	269
Florence Avenue to Meyer Road	67.9	10	31	97	308
Meyer Road to Leffingwell Road	68.4	11	35	109	346
Leffingwell Road to Imperial Highway	71.9	24	77	245	774
Imperial Highway to Rosecrans Avenue	72.4	27	87	275	869
Rosecrans Avenue to I-5 NB Ramps	72.3	27	85	269	849
I-5 NB Ramp to Firestone Boulevard	72.2	26	83	262	830
Firestone Boulevard to Alondra Boulevard	80.5	177	561	1,774	5,610
<b>Imperial Highway</b>					
Valley View Avenue to Carmenita Road	70.7	19	59	186	587
Carmenita Road to Leffingwell Road	70.3	17	54	169	536
Leffingwell Road to Bloomfield Avenue	73.4	35	109	346	1,094
<b>Florence Avenue</b>					
Telegraph Road to Carmenita Road	70.5	18	56	177	561
Carmenita Road to Bloomfield Avenue	72.9	31	97	308	975

**Table 4.13-13**  
**GPTZCU Transportation Noise Contour Distances (Year 2040)**

<b><u>Road or Rail Segment</u></b>	<b>Predicted CNEL at 50 Feet (dBA)</b>	<b>CNEL Contour and Distance from Road Centerline in Feet</b>			
		<b>75</b>	<b>70</b>	<b>65</b>	<b>60</b>
Bloomfield Avenue to Pioneer Boulevard	72.0	25	79	251	792
Pioneer Boulevard to Fairford Avenue	73.1	32	102	323	1,021
<b>Greenleaf Avenue</b>					
Mulberry Drive to Los Nietos Road	54.9	0	2	5	15
Los Nietos Road to Telegraph Road	62.1	3	8	26	81
<b>Lakeland Road</b>					
Carmenita Road to Laurel Avenue	60.5	2	6	18	56
Laurel Avenue to Painter Avenue	61.6	2	7	23	72
Painter Avenue to Shoemaker Avenue	60.4	2	5	17	55
Shoemaker Avenue to Bloomfield Avenue	75.3	54	169	536	1,694
Bloomfield Avenue to Norwalk Boulevard	59.4	1	4	14	44
Norwalk Boulevard to Pioneer Boulevard	60.3	2	5	17	54
<b>Mulberry Drive</b>					
Painter Avenue to Santa Fe Springs Road	70.4	17	55	173	548
<b>Norwalk Boulevard</b>					
Mines Street to Washington Boulevard	69.6	14	46	144	456
Washington Boulevard to Slauson Avenue	69.3	13	43	135	426
Slauson Avenue to Los Nietos Road	72.9	31	97	308	975
Los Nietos Road to Telegraph Road	69.2	13	42	132	416
Telegraph Road to Florence Avenue	71.6	23	72	229	723
Florence Avenue to 4th Street	71.2	21	66	208	659
<b>Painter Avenue</b>					
Mulberry Drive to Wallburg Street	67.7	9	29	93	294
<b>Pioneer Boulevard</b>					
Saragosa Street to Washington Boulevard	66.0	6	20	63	199
Washington Boulevard to I-605 NB Ramp	66.3	7	21	67	213
I-605 NB Ramp to Slauson Avenue	68.4	11	35	109	346
Slauson Avenue to Orr and Day Road	63.0	3	10	32	100
Orr and Day Road to Arlee Avenue	56.1	1	2	6	20
Arlee Avenue to Florence Avenue	67.8	10	30	95	301
Florence Avenue to Lakeland Road	68.2	10	33	104	330

**Table 4.13-13**  
**GPTZCU Transportation Noise Contour Distances (Year 2040)**

<b>Road or Rail Segment</b>	<b>Predicted CNEL at 50 Feet (dBA)</b>	<b>CNEL Contour and Distance from Road Centerline in Feet</b>			
		<b>75</b>	<b>70</b>	<b>65</b>	<b>60</b>
<b>Santa Fe Springs Road</b>					
Mulberry Drive to Sorensen Avenue	64.9	5	15	49	155
Sorensen Avenue to Telegraph Road	68.9	12	39	123	388
<b>Shoemaker Avenue</b>					
Telegraph Road to Florence Avenue	62.9	3	10	31	97
Florence Avenue to Meyer Road	65.6	6	18	57	182
Meyer Road to Sunshine Avenue	61.4	2	7	22	69
Sunshine Avenue to Imperial Highway	63.7	4	12	37	117
Rosecrans Avenue to UPRR Rail Crossing	66.0	6	20	63	199
UPRR Rail Crossing to Alondra Boulevard	69.0	13	40	126	397
<b>Slauson Avenue</b>					
Santa Fe Springs Road to Sorensen Avenue	70.4	17	55	173	548
Sorensen Avenue to Dice Road	69.8	15	48	151	477
Dice Road to Norwalk Boulevard	72.2	26	83	262	830
Norwalk Boulevard to Pioneer Boulevard	71.5	22	71	223	706
Pioneer Boulevard to Passons Boulevard	73.4	35	109	346	1,094
<b>Telegraph Road</b>					
Leffingwell Road to Valley View Avenue	71.2	21	66	208	659
Valley View Avenue to Mills Avenue/Florence Avenue	72.9	31	97	308	975
Mills Avenue/Florence Avenue to Carmenita Road	70.2	17	52	166	524
Carmenita Road to Bloomfield Avenue	69.0	13	40	126	397
Bloomfield Avenue to Orr and Day Road	70.9	19	62	195	615
Orr and Day Road to True Avenue	73.2	33	104	330	1,045
<b>Washington Boulevard</b>					
Calobar Avenue/Rivera Road to Sorensen Avenue	69.8	15	48	151	477
Sorensen Avenue to Norwalk Boulevard	71.0	20	63	199	629
Norwalk Boulevard to Pioneer Boulevard	72.1	26	81	256	811
Pioneer Boulevard to San Gabriel	72.4	27	87	275	869

**Table 4.13-13**  
**GPTZCU Transportation Noise Contour Distances (Year 2040)**

<u>Road or Rail Segment</u>	<u>Predicted CNEL at 50 Feet (dBA)</u>	<u>CNEL Contour and Distance from Road Centerline in Feet</u>			
		<u>75</u>	<u>70</u>	<u>65</u>	<u>60</u>
River					
<b>Interstate 5</b>					
Valley View Avenue to Rosecrans Avenue (Without Barrier)	86.8	757	2,393	7,568	23,932
Valley View Avenue to Rosecrans Avenue (With Barrier)	75.8	60	190	601	1,901
Rail track to San Gabriel River (Without Barrier)	86.8	757	2,393	7,568	23,932
Rail track to San Gabriel River (With Barrier)	76.4	69	218	690	2,183
<b>Interstate 605</b>					
I-5 to City Limit (Without Barrier)	87.9	975	3,083	9,749	30,830
I-5 to City Limit (With Barrier)	78.2	104	330	1,045	3,303
<b>Freight Rail Lines</b>					
BNSF/UPRR Freight Rail Line	77	79	251	792	2,506
Source: MIG, 2021 (see Appendix E)					
(A) CNEL values for road segments are estimated 50 feet from the center of the nearest travel direction, excepting I-5 and I-605, which are measured 150 feet from the center of the freeway right-of-way. CNEL values for rail segments are estimated 50 feet from the center of the nearest rail track.					

**Table 4.13-14**  
**Future (2040) Traffic Noise Levels With and Without the General Plan Update**

<u>Road / Segment</u>	<u>Year 2040 No GPTZCU</u>		<u>Year 2040 With GPTZCU</u>		<u>Net Change</u>	
	<u>ADT</u>	<u>CNEL<sup>(A)</sup></u>	<u>ADT</u>	<u>CNEL<sup>(A)</sup></u>	<u>ADT</u>	<u>CNEL</u>
<b>Bloomfield Avenue</b>						
Telegraph Road to Florence Avenue	22,195	70.3	19,077	69.5	-3,118	-0.8
Florence Avenue to Imperial Highway <sup>(c)</sup>	26,225	69.5	23,114	68.7	-3,111	-0.8
<b>Carmenita Road</b>						
Painter Avenue to Telegraph Road	24,335	67.5	24,536	67.5	201	0.0
Telegraph Road to Florence Avenue	22,749	67.2	22,370	67.3	-379	0.1
Florence Avenue to Meyer Road	22,168	67.9	22,085	67.9	-83	0.0
Meyer Road to Leffingwell Road	25,976	68.3	26,773	68.4	797	0.1
Leffingwell Road to Imperial Highway	36,751	71.7	37,622	71.9	871	0.2

**Table 4.13-14**  
**Future (2040) Traffic Noise Levels With and Without the General Plan Update**

<b>Road / Segment</b>	<b>Year 2040 No GPTZCU</b>		<b>Year 2040 With GPTZCU</b>		<b>Net Change</b>	
	<b>ADT</b>	<b>CNEL<sup>(A)</sup></b>	<b>ADT</b>	<b>CNEL<sup>(A)</sup></b>	<b>ADT</b>	<b>CNEL</b>
Imperial Highway to Rosecrans Avenue	33,949	72.2	34,233	72.4	284	0.2
Rosecrans Avenue to I-5 NB Ramps	37,613	72.1	38,887	72.3	1,274	0.2
I-5 NB Ramp to Firestone Boulevard	43,064	71.9	44,780	72.2	1,716	0.3
Firestone Boulevard to Alondra Boulevard	35,009	71.7	33,646	71.7	-1,362	0.0
<b>Imperial Highway</b>						
Valley View Avenue to Carmenita Road	31,238	70.6	31,354	70.7	116	0.1
Carmenita Road to Leffingwell Road	25,412	70	26,456	70.3	1,044	0.3
Leffingwell Road to Bloomfield Avenue <sup>(C)</sup>	56,725	73.1	60,905	73.4	4,180	0.3
<b>Florence Avenue</b>						
Telegraph Road to Carmenita Road	37,968	70.7	38,762	70.5	794	-0.2
Carmenita Road to Bloomfield Avenue	36,697	72.8	37,226	72.9	529	0.1
Bloomfield Avenue to Pioneer Boulevard	34,045	71.6	35,733	72.0	1,688	0.4
Pioneer Boulevard to Fairford Avenue	45,181	72.7	48,531	73.1	3,350	0.4
<b>Greenleaf Avenue</b>						
Mulberry Drive to Los Nietos Road	4,816	60.4	1,663	54.9	-3,152	-5.5
Los Nietos Road to Telegraph Road	11,420	62.9	8,669	62.1	-2,751	-0.8
<b>Lakeland Road</b>						
Carmenita Road to Laurel Avenue	4,883	62.3	2,835	60.3	-2,048	-2.0
Laurel Avenue to Painter Avenue	5,691	61.9	5,018	61.2	-672	-0.7
Painter Avenue to Shoemaker Avenue	3,105	60.2	1,471	57.2	-1,634	-3.0
Shoemaker Avenue to Bloomfield Avenue	8,207	63	8,503	63.1	296	0.1
Bloomfield Avenue to Norwalk Boulevard	3,402	58.5	3,744	58.6	341	0.1
Norwalk Boulevard to Pioneer	6,895	61	6,299	60.2	-596	-0.8



**Table 4.13-14**  
**Future (2040) Traffic Noise Levels With and Without the General Plan Update**

<u>Road / Segment</u>	<u>Year 2040 No GPTZCU</u>		<u>Year 2040 With GPTZCU</u>		<u>Net Change</u>	
	<u>ADT</u>	<u>CNEL<sup>(A)</sup></u>	<u>ADT</u>	<u>CNEL<sup>(A)</sup></u>	<u>ADT</u>	<u>CNEL</u>
Boulevard						
<b>Mulberry Drive</b>						
Painter Avenue to Santa Fe Springs Road	41,163	70	43,933	70.4	2,769	0.4
<b>Norwalk Boulevard</b>						
Mines Street to Washington Boulevard	25,441	69.8	23,097	69.6	-2,344	-0.2
Washington Boulevard to Slauson Avenue	37,243	69.1	38,958	69.3	1,715	0.2
Slauson Avenue to Los Nietos Road	37,714	72.8	38,028	72.9	313	0.1
Los Nietos Road to Telegraph Road	21,337	69.1	22,213	69.2	876	0.1
Telegraph Road to Florence Avenue	30,596	71.1	33,540	71.6	2,944	0.5
Florence Avenue to 4th Street <sup>(D)</sup>	30,834	70.7	34,217	71.2	3,383	0.5
<b>Painter Avenue</b>						
Mulberry Drive to Wallburg Street	24,903	67.2	27,211	67.7	2,308	0.5
<b>Pioneer Boulevard</b>						
Saragosa Street to Washington Boulevard	23,111	66.6	21,812	66.0	-1,299	-0.6
Washington Boulevard to I-605 NB Ramp	23,217	66.5	22,805	66.3	-413	-0.2
I-605 NB Ramp to Slauson Avenue	29,237	68.4	29,971	68.4	734	0.0
Slauson Avenue to Orr and Day Road	13,984	64.3	11,675	63.0	-2,308	-1.3
Orr and Day Road to Arlee Avenue	4,923	59.2	3,345	56.1	-1,578	-3.1
Arlee Avenue to Florence Avenue	14,503	67.6	15,052	67.8	549	0.2
Florence Avenue to Lakeland Road	22,432	67.7	25,334	68.2	2,902	0.5
<b>Santa Fe Springs Road</b>						
Mulberry Drive to Sorensen Avenue	14,729	65.8	12,981	64.9	-1,748	-0.9
Sorensen Avenue to Telegraph Road	21,847	70	17,772	68.9	-4,074	-1.1
<b>Shoemaker Avenue</b>						
Telegraph Road to Florence Avenue	8,964	63.7	6,538	62.9	-2,425	-0.8

**Table 4.13-14**  
**Future (2040) Traffic Noise Levels With and Without the General Plan Update**

<b>Road / Segment</b>	<b>Year 2040 No GPTZCU</b>		<b>Year 2040 With GPTZCU</b>		<b>Net Change</b>	
	<b>ADT</b>	<b>CNEL<sup>(A)</sup></b>	<b>ADT</b>	<b>CNEL<sup>(A)</sup></b>	<b>ADT</b>	<b>CNEL</b>
Florence Avenue to Meyer Road	12,297	64.7	13,824	65.6	1,527	0.9
Meyer Road to Sunshine Avenue	6,434	63.9	3,616	61.4	-2,818	-2.5
Sunshine Avenue to Imperial Highway	8,504	65.4	5,708	63.7	-2,796	-1.7
Rosecrans Avenue to UPRR Rail Crossing	12,706	66.2	11,859	66.0	-846	-0.2
UPRR Rail Crossing to Alondra Boulevard	16,626	69.5	15,640	69.0	-986	-0.5
<b>Slauson Avenue</b>						
Santa Fe Springs Road to Sorensen Avenue	36,946	70.3	38,796	70.4	1,850	0.1
Sorensen Avenue to Dice Road	33,784	69.5	35,902	69.8	2,119	0.3
Dice Road to Norwalk Boulevard	41,503	72	44,242	72.2	2,739	0.2
Norwalk Boulevard to Pioneer Boulevard	35,907	71.5	36,821	71.5	914	0.0
Pioneer Boulevard to Parsons Boulevard	56,869	73	61,342	73.4	4,473	0.4
<b>Telegraph Road</b>						
Leffingwell Road to Valley View Avenue	35,320	70.8	37,151	71.2	1,831	0.4
Valley View Avenue to Mills Avenue/Florence Avenue	51,469	72.5	55,360	72.9	3,891	0.4
Mills Avenue/Florence Avenue to Carmenita Road	43,922	70.2	44,997	70.2	1,075	0.0
Carmenita Road to Bloomfield Avenue	35,040	68.8	35,626	69.0	587	0.2
Bloomfield Avenue to Orr and Day Road	43,226	70.7	44,541	70.9	1,315	0.2
Orr and Day Road to True Avenue	68,037	73	69,624	73.2	1,587	0.2
<b>Washington Boulevard</b>						
Calobar Avenue/Rivera Road to Sorensen Avenue	30,926	69.6	32,210	69.8	1,283	0.2
Sorensen Avenue to Norwalk Boulevard	38,593	76.4	42,484	71.0	3,890	-5.4
Norwalk Boulevard to Pioneer Boulevard	54,341	72	56,277	72.1	1,936	0.1

**Table 4.13-14**  
**Future (2040) Traffic Noise Levels With and Without the General Plan Update**

<u>Road / Segment</u>	<u>Year 2040 No GPTZCU</u>		<u>Year 2040 With GPTZCU</u>		<u>Net Change</u>	
	<u>ADT</u>	<u>CNEL<sup>(A)</sup></u>	<u>ADT</u>	<u>CNEL<sup>(A)</sup></u>	<u>ADT</u>	<u>CNEL</u>
Pioneer Boulevard to San Gabriel River	59,204	72.2	62,613	72.4	3,408	0.2
<b>Interstate 5</b>						
Valley View Avenue to Rosecrans Avenue (Without Barrier)	178,193	86.7	178,457	86.8	264	0.1
Valley View Avenue to Rosecrans Avenue (With Barrier)	178,193	75.7	178,457	75.8	264	0.1
Rail track to San Gabriel River (Without Barrier)	197,764	86.7	198,057	86.8	293	0.1
Rail track to San Gabriel River (With Barrier)	197,764	76.2	198,057	76.4	293	0.2
<b>Interstate 605</b>						
I-5 to City Limit (Without Barrier)	276,045	87.8	276,454	87.9	409	0.1
I-5 to City Limit (With Barrier)	276,045	78.1	276,454	78.2	409	0.1
Source: MIG, 2021 (see Appendix E)						
(A) CNEL values for road segments are estimated 50 feet from the center of the nearest travel direction, excepting I-5 and I-605, which are measured 150 feet from the center of the freeway right-of-way.						

As shown in Table 4.13-14, the results of the traffic noise modeling indicate that traffic noise levels within the Planning Area would continue to be highest along major travel corridors such as Florence Avenue, Imperial Highway, Norwalk Boulevard, Slauson Avenue, Telegraph Road, and Washington Boulevard; however, the GPTZCU would not substantially increase traffic volumes or traffic noise levels along these roadways. The traffic noise modeling indicates the GPTZCU would not increase traffic noise levels by more than one decibel on any roadway segments (as compared to future 2040 baseline conditions). In addition, the GPTZCU would reduce traffic and traffic noise levels on more than 15 modeled road segments in the Planning Area, providing an environmental benefit in these areas. This impact is considered a less than significant impact.

Pursuant to the State noise standards, California Building Code, Section 1207.4, new residential structures would be required to be constructed such that interior noise levels do not exceed an 45 dBA CNEL. Standard construction techniques and materials are commonly accepted to provide a minimum exterior to interior noise attenuation (i.e., reduction) of 22–25 dBA with all windows and doors closed (HUD 2009a and 2009b).<sup>3</sup> These interior noise reductions would be

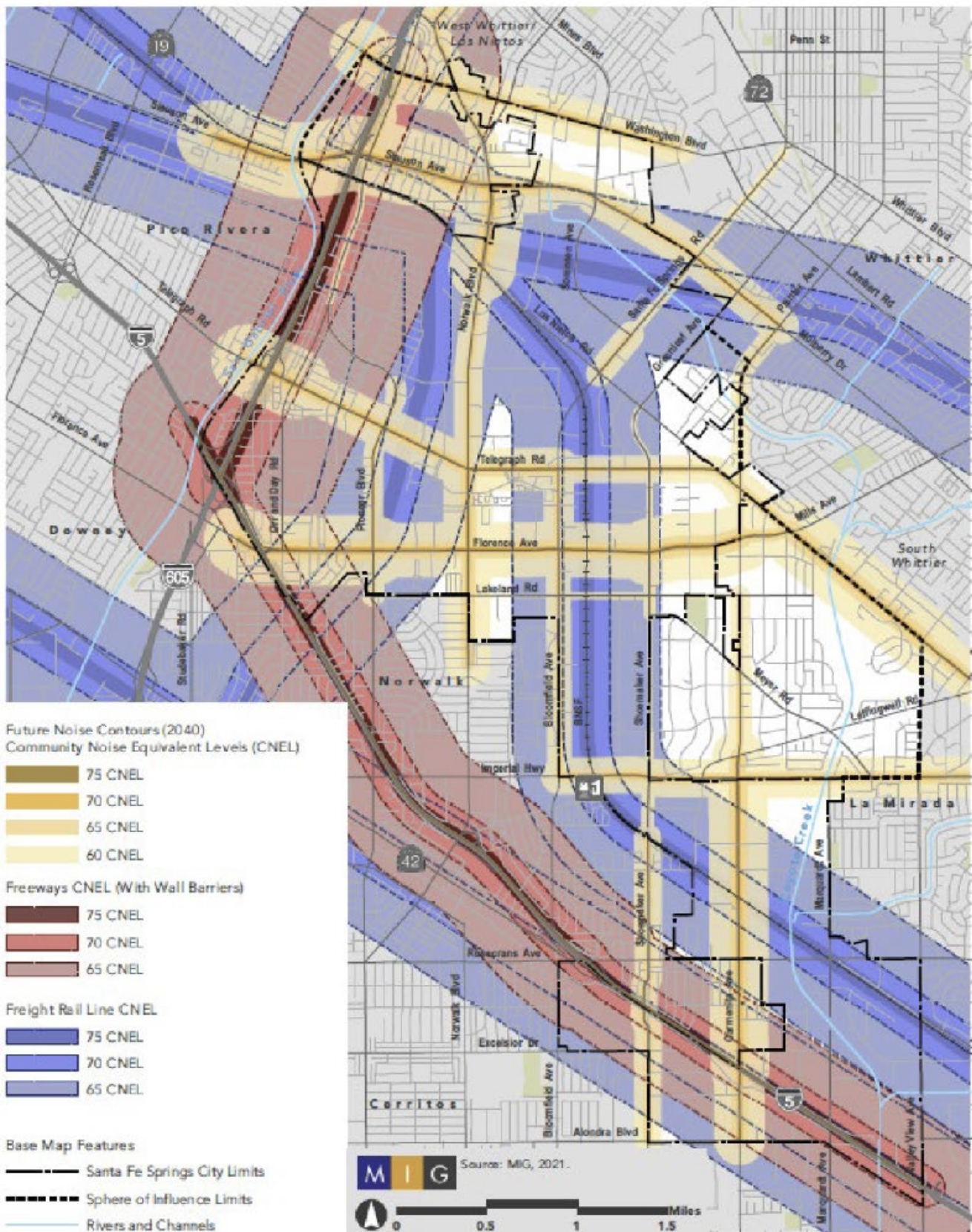
<sup>3</sup> The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 35 dBs of attenuation between exterior and interior noise levels. This reduction may be slightly lower (2-3 dBs) for traffic noise due to the specific frequencies associated with traffic noise. Increasing

adequate for some developments occurring under the GPTZCU to meet interior noise standards. New residential and mixed-use developments at certain opportunity sites (see Table 4.13-15) and along major arterial roads such as Carmenita Road, Imperial Highway, Florence Avenue, Norwalk Boulevard, Slauson Avenue, Telegraph Road, and Washington Boulevard, particularly along road segments with higher speed limits (40 mph or more), could require additional noise attenuation design features since traffic noise levels along these roadways are estimated to exceed 70 CNEL under future conditions with and without the GPTZCU. Adherence to the State's mandatory noise standards would ensure residential and mixed-use structures within the Planning Area meet or exceed the 45 dBA CNEL standard.

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window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade.

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### Exhibit 4.13-3 Future Noise Contours (Year 2040)

Santa Fe Springs General Plan and Targeted Zoning Code Update  
Santa Fe Springs, California



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**Table 4.13-15**  
**Summary of Potential Noise Levels at General Plan Update Opportunity Sites**

<b>Site / Transportation Noise Source</b>	<b>2021 Measured Ambient Noise Level<sup>(A)</sup></b>	<b>2040 Modeled Transportation Noise Level with GPTZCU<sup>(B)</sup></b>
Washington Boulevard/Norwalk TOC	63.6 dBA L <sub>eq</sub>	-
Norwalk Boulevard	-	69.3 dBA CNEL
Washington Boulevard	-	71.0 dBA CNEL
Metrolink TOC	72.7 dBA L <sub>eq</sub>	-
Bloomfield Avenue	-	68.7 dBA CNEL
Imperial Highway	-	73.4 dBA CNEL
BNSF Rail Corridor		77.0 CNEL
MC&C Site	77.1 dBA CNEL	-
Bloomfield Avenue	-	69.5 dBA CNEL
Telegraph Road	-	69.0 dBA CNEL
BNSF Rail Corridor		77.0 CNEL
Koontz Site	66.4 dBA L <sub>eq</sub>	-
Norwalk Boulevard	-	71.2 dBA CNEL
Florence Avenue	-	72.0 dBA CNEL
Lakeland Road	-	60.2 dBA CNEL
Source: MIG, 2021 (see Appendix E).		
(A) Refer to Tables 4.13-2 and 4.13-3 for ambient noise monitoring data.		
(B) Refer to Table 4.13-13 and 4.13-14 for modeled transportation noise levels.		

The City's proposed updated Circulation, Land Use, and Noise Elements focuses on allowing Santa Fe Springs residents to enjoy quiet neighborhoods and includes measures that protect residents from excessive noise levels (including transportation noise) that could disturb and disrupt human activities and affect the physical and psychological health of individuals. Table 4.13-16 summarizes the proposed GPTZCU goals and policies that address ambient noise exposure and operational noise levels within the City.



**Table 4.13-16**  
**Proposed GPTZCU Noise Element Policies Pertaining to Operational Noise Levels and Community Noise Exposure**

<b>Noise Element Goal</b>	<b>Noise Element Policy/Program</b>	<b>How does the General Plan Avoid or Reduce the Impact?</b>
N-1: Reduced Traffic and Train Noise.	<p>Policy N-1.1: Freeway and Roadway Noise. Incorporate into transportation planning programs noise reduction measures that can reduce noise impacts on residential neighborhoods from surface transportation sources, including such features as noise barriers and walls, insulation, green buffers and berms, and paving technologies that reduce vehicle noise.</p> <p>Policy N-1.2: Residential Noise Impacts. Update truck routes and redesignate routes to reduce noise exposure in residential neighborhoods and on sensitive community noise receptors that are within noise zones of 70 CNEL or higher.</p> <p>Policy N-1.3: Electric Vehicles. Support efforts that will reduce vehicular noise through programs that increase the percentage share of electric vehicles on roadways.</p> <p>Policy N-1.4: Quiet Road Surfaces. Incorporate into surface roadway design materials that absorb tire noise.</p> <p>Policy N-1.5: Building Sound Insulation. Encourage sound insulation in new and established residential buildings adjacent to the freeways, railroads, and arterials to improve the outdoor-to-indoor noise environment. Prioritize mitigation in disadvantaged communities.</p> <p>Policy N-1.6: Bus Noise. Support the efforts of Metro to use quiet bus technologies and to route bus lines in a manner that avoids noise impacts on residential neighborhoods.</p> <p>Policy N-1.7: Garbage Trucks and Services.</p>	Policies N-1.1 through N-1.9 identify vehicle and rail traffic noise as a key contributor to the City's noise environment, requires noise levels from these sources be considered from a planning perspective, supports measures and actions that reduce vehicle and rail traffic noise levels, and requires site design and sound insulation in residential buildings impacted by vehicle and rail traffic noise levels.

	<p>Award garbage collection franchise contracts in part on the ability of service providers to minimize noise by using quiet and non-polluting collection vehicles and other noise-reducing strategies.</p> <p>Policy N-1.8: Railway Noise and Vibration Impacts. Support the soundproofing and retrofitting of homes adjacent to railways and railyards by incorporating wall insulation, installing sound-blocking windows and doors, adding indoor and/or outdoor soundproof curtains or panels, and other similar technologies and sound controls.</p> <p>Policy N-1.9: Railway Barriers. Incorporate physical barriers between residential uses and railways and rail yards, including planting extensive vegetation barriers, adding earth berms, installing sound walls, and other mitigation strategies to minimize air pollution and noise and vibration impacts.</p>	
N-2: Land Use Decisions that Minimize Noise Exposure	<p>Policy N-2.1: Noise Standards. Revisit noise standards in the Municipal Code to ensure they sufficiently address community noise conditions, issues, and concerns for various land uses.</p> <p>Policy N-2.2: Land Use Compatibility. Utilize the noise/land use compatibility standards (Table N-1) as a guide in land use planning for the review of development applications.</p> <p>Policy N-2.3: Noise Studies. Require developers of projects that are considered potential sources of noise, or when projects are proposed next to existing or planned noise-sensitive land uses to prepare an acoustical study that describes the existing and future noise environments and defines the noise-reducing design incorporated into the project that will achieve a noise environment consistent with City standards and guidelines.</p> <p>Policy N-2.4: Truck Access. Require new industrial and commercial developments and/or remodels to address proximity to residential uses, through the site design, by locating truck access at the maximum practical distance away from residential uses and with adequate noise shielding provided to achieve noise standards.</p>	<p>Policies N-2.1 through N-2.5 ensures community noise levels are adequately considered during planning and municipal code activities, requires the City use the General Plan noise/land use compatibility guidelines during development review, requires projects assess and minimize potential noise impacts on sensitive land uses, and provides actions to separate noise generating activities and land uses from noise sensitive receptors and land uses.</p>

	Policy N-2.5: Noise-Generating Industrial Facilities. Locate noise-generating industrial facilities at the maximum practical distance from residential neighborhoods. Use setbacks between noise-generating equipment and noise-sensitive uses and limit the operation of noise-generating activities to daytime hours where such activities may affect residential uses.	
N-3: Quieter Neighborhoods	<p>Policy N-3.1: Noise Enforcement. Enforce City regulations intended to mitigate noise-producing activities, reduce intrusive noise, and alleviate noise deemed a public nuisance.</p> <p>Policy N-3.2: Noise Reduction Technology. Require new City equipment purchases or facilities operations that utilizes noise reduction technology to comply with noise performance standards.</p> <p>Policy N-3.4: Home Retrofits. Develop a program to assist with the retrofit of residences adjacent to freeways to achieve suitable interior noise conditions.</p>	<p>Policy N-3.1 and N-3.2 enforce provisions of the Santa Fe Springs Municipal Code that are intended to control loud and unnecessary noises that may affect and/or be a detriment to residents' public health, comfort, convenience, safety, welfare, and prosperity.</p> <p>Policy N-3.2 supports the City's noise element goals through the purchase and use of equipment and performance of operations that comply with City noise standards and assistance to homeowners for residential retrofits that achieve suitable interior noise levels.</p>

The GPTZCU Noise Element goals and policies establish the City's intent to protect noise-sensitive uses and minimize traffic, rail, and other operations-related noise impacts and overall community exposure levels. As shown in Table 4.13-16 and discussed above, the proposed GPTZCU would not result in a significant increase in traffic noise levels in the Planning Area. The GPTZCU sets forth the City's intent to establish clear and enforceable noise regulations for all land uses, to consider operational noise impacts during the development review process, and to limit new development in noise impacted areas unless the development includes mitigation measures to reduce noise levels to acceptable levels. In addition, the proposed GPTZCU's Land Use and Circulation Elements include goals and policies to reduce vehicle trips on the City's roads, which would lower traffic-related noise levels. This impact is considered less than significant.

#### **Increases in Stationary and Other Sources of Noise**

Stationary and other sources of noise in the Planning Area include, but are not limited to, landscape and building maintenance activities, stationary mechanical equipment (e.g., pumps,

generators, HVAC units), garbage collection activities, commercial and industrial activities, and other stationary and area sources such as people's voices, amplified music, and public address systems.

Noise generated by residential or commercial uses is generally short-term and intermittent. Industrial uses may generate noise on a more continual basis due to the types of their activities. The GPTZCU would increase residential and commercial development within the Planning Area and, in particular, allow mixed use development in which residential and commercial uses are integrated into a single development project. These types of developments tend to have higher noise levels associated with the mix of land uses contained within them. Future planned development could also result in new stationary and area sources as well as exposure of new sensitive land uses to existing stationary and area sources.

The City's existing General Plan includes goals and policies that minimize the impact of ambient and operational noise levels throughout the City (see Table 4.13-16). In addition, Santa Fe Springs Municipal Code Title XV (Land Usage), Chapter 155 (Zoning) establishes the City's standards related to noise, including specific loud, annoying, and unnecessary noises that may have an effect on, and be detrimental to, the public health, comfort, convenience, safety, welfare and prosperity of the City's residents (see Section 4.13.3).

Proposed GPTZCU policies would protect residents from excessive stationary noise sources and ensure new land uses meet the Santa Fe Springs Municipal Code noise standards through evaluation and design considerations. Thus, stationary and other sources of noise would be controlled by the General Plan goals and policies, and the Municipal Code, which limit allowable noise levels at adjacent properties. Therefore, future stationary noise sources would comply with City standards and would not expose people to a substantial permanent increase in noise levels.

The GPTZCU sets forth the City's intent to establish clear and enforced noise regulations for all land uses, to consider operational noise impacts during the development review process, and to limit new development in noise impacted areas unless the development includes mitigation measures to reduce noise levels to acceptable levels. In addition, proposed GPTZCU policies would protect residents from excessive stationary noise sources and ensure new land uses meet the Santa Fe Springs Municipal Code noise standards through evaluation and design considerations. Thus, stationary and other sources of noise would be controlled by the General Plan goals and policies, and the Municipal Code, which limits allowable noise levels at adjacent properties. Therefore, future operations would comply with City standards and would not expose people to a substantial permanent increase in noise levels from transportation or non-transportation noise sources.

#### Level of Significance Before Mitigation

Less than significant.

#### Mitigation Measures

None required.

### **Ground-borne Vibration and Noise Levels**

***Impact NOISE-3– Would the project result in generation of excessive groundborne noise levels?***

### Analysis of Impacts

#### **Temporary Construction Vibration Levels**

Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and at high levels can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping (e.g., a hospital). Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response. Pile drivers and other pieces of high-impact construction equipment are generally the primary cause of construction-related vibration impacts. The use of such equipment is generally limited to sites where there are extensive layers of very hard materials (e.g., compacted soils, bedrock) that must be loosened or penetrated to achieve grading and foundation design requirements. The need for such methods is usually determined through site-specific geotechnical investigations that identify the subsurface materials within the grading envelope, along with foundation design recommendations and the construction methods needed to safely permit development of a site.

Construction equipment and activities are categorized by the nature of the vibration they produce. Equipment or activities typical of continuous vibration include excavation equipment, static compaction equipment, vibratory pile drivers, and pile-extraction equipment. Equipment or activities typical of transient (single-impact) or low-rate, repeated impact vibration include impact pile drivers, and crack-and-seat equipment. Pile driving and blasting activities produce the highest levels of ground vibration and can result in structural damage to existing buildings.

Since individual project-specific information is not available at this time, potential short-term construction-related vibration impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and industrial development. Potential construction source vibration levels were developed based on methodologies, reference noise levels, and typical equipment usage and other operating factors documented and contained in the FHWA's Construction Noise Handbook (FHWA, 2006), FTA's Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans, 2020b). Reference levels are vibration emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Future development as a result of the Project could occur in primarily urban settings where land is already disturbed and, therefore, is not likely to require blasting, which is typically used to remove unwanted rock or earth. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors. Table 4.13-17 presents the typical types of equipment that could be used for future development activities in the Planning Area.

**Table 4.13-17**  
**Ground-borne Vibration and Noise from Typical Construction Equipment**

Equipment	Peak Particle Velocity (in/sec) <sup>(A)</sup>			Velocity Decibels (VdB) <sup>(B)</sup>		
	25 feet	50 feet	100 feet	25 feet	50 feet	100 feet
Small bulldozer	0.003	0.001	0.001	58	49	40
Jackhammer	0.035	0.016	0.008	79	70	61
Rock Breaker	0.059	0.028	0.013	83	74	65
Loaded truck	0.076	0.035	0.017	86	77	68
Auger Drill Rig	0.089	0.042	0.019	87	78	69
Large bulldozer	0.089	0.042	0.019	87	78	69
Vibratory Roller	0.210	0.098	0.046	94	85	76
Impact Pile Driver (upper range)	1.518	0.708	0.330	112	103	94
Impact Pile Driver (typical)	0.644	0.300	0.140	104	95	86
Sonic Pile Driver (upper range)	0.734	0.42	0.160	105	96	87
Sonic Pile Driver (typical)	0.170	0.079	0.037	93	84	75
Sources: Caltrans 2020b and FTA 2018 (A) Estimated PPV calculated as: $PPV(D) = PPV(ref) * (25/D)^{1.1}$ where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils). (B) Estimated Lv calculated as: $Lv(D) = Lv(25\text{ feet}) - 30\log(D/25)$ where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 ft; and D= distance from equipment to receiver.						

As shown in Table 4.13-17, specific vibration levels associated with typical construction equipment are highly dependent on the type of equipment used. Vibration levels dissipate rapidly with distance, such that even maximum impact pile driving activities would result in vibration levels below Caltrans' recommended 0.5 PPV threshold for transient vibration-induced damage in historic, older buildings at a distance 100 feet; all other activities would be below Caltrans' threshold for transient vibration-induced damage in historic, older buildings at a distance of 25 feet. For human responses, maximum impact pile driving activities would result in groundborne vibration and noise levels below Caltrans' threshold for a distinctly perceptible response (0.24 PPV) and the FTA's vibration standard for infrequent events at residential lands (80 VdB) at a distance of approximately 150 feet and 300 feet, respectively. All other activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses.

### **Operations-Related Ground borne Vibration Levels**

The proposed GPTZCU could facilitate the construction of new mixed-use projects near existing BNSF and UPRR freight rail lines (the BNSF line is also used by Metrolink for commuter rail services). For example, both the Metrolink TOC and the MC&C opportunity sites are located adjacent to the BNSF rail line that generally runs north to south through the City. With regards to

vibration impacts on new development near railroads, human disturbance is the primary concern. It is extremely rare for vibration levels from trains passing to result in structural damage to buildings, particularly new construction. In addition, buses and other transit vehicles are not anticipated to generate excessive vibration levels that would disturb sensitive receptors because these vehicles are travelling at lower speeds and do not generate substantial vibrations.

The FTA's *Transit Noise and Vibration Impact Assessment* document provides recommended ground-borne vibration criteria for general environmental assessments. The vibration criteria vary according to the sensitivity of the land use and the frequency of vibration events (i.e., number of trains passing by the sensitive land use), as shown in Table 4.13-6, but for occasional events such as freight train activity (i.e., 30 to 70 trains passing by in one day), the criteria generally vary between 65 Vdb for buildings where vibration would interfere with interior operations (e.g., highly sensitive research facilities, hospitals), to 75 VdB for residences and buildings where people normally sleep, to 78 VdB for land uses with primarily daytime uses. Highly sensitive research facilities and hospitals are not anticipated under the proposed GPTZCU and, therefore, the 65 VdB threshold is not considered further in this analysis. The FTA's guidance document contains generalized ground surface vibration curves derived from vibration measurements of transit systems in North America (FTA 2018, Figure 6-4). Based on these vibration prediction curves, proposed residential development within approximately 150 feet of a freight rail line could be exposed to vibration levels that exceed the FTA's recommended threshold of 75 VdB for residences exposed to occasional vibration events. Similarly, other proposed land uses within approximately 100 feet of a freight rail line could be exposed to vibration levels that exceed the FTA's recommended threshold of 78 VdB for land uses with primarily daytime occupancy. The actual vibration levels perceived by receptors adjacent to the City's freight rail lines would be contingent on several factors, including the type of locomotive power (e.g., diesel locomotive or diesel multiple unit), the type of train using the line (e.g., freight or commuter), the speed of the vehicle (vibration estimates are based on 50 mph travel speeds and would be approximately 4 VdB lower at a travel speed of 30 mph), and actual subsurface conditions between the rail line and the receptor.

The GPTZCU Noise Element goals and policies establish the City's intent to protect vibration-sensitive uses and minimize traffic, rail, and other operations-related noise impacts and overall community exposure levels. As shown in Table 4.13-16, Policy N-1.4, Rail Noise and Vibrations, requires the City to consult with rail companies that operate lines through the City to minimize train noise, signal noise, at-grade crossing noise, and vibration levels produced by heavy and light traffic, and to focus mitigation efforts on resolving conflicts in residential areas exposed to rail noise and vibration levels. In addition, City Municipal Code Section 155.428 establishes that ground vibrations shall not be harmful or injurious to a use or surrounding property, and prohibits vibrations that are generally perceptible by humans without the use of vibration detection instruments.

Typical construction activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses. Most construction equipment does not operate in the same location for prolonged periods of time. Therefore, even if construction equipment were to operate near a building where receptors may feel vibration, it would only be for a temporary amount of time and would not be considered excessive. This impact is considered less than significant.

Future planned development within approximately 150 feet of existing freight and commuter rail lines in the City, including the Metrolink TOC and MC&C opportunity sites, could be exposed to excessive freight train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 75 or 78 VdB, respectively; however, the GPTZCU sets forth the City's intent to consider operational vibration impacts during the development review process and ensure vibration levels are acceptable for specific land use proposals.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

**Excessive Airport-related Noise Levels**

***Impact NOISE-4 – For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

Analysis of Impacts

The closest airport to the Planning Area is the Fullerton Municipal Airport, located approximately 2.6 miles southeast of the city. The city is not located in any noise contour zone associated with this airport. In addition, there are no private air strips located in the Planning Area, although the Norwalk Sheriff's office, located southwest of the intersection of Bloomfield Avenue and Imperial Highway, adjacent to the City's western boundary does maintain a heliport. Noise from overhead flights was observed during the ambient noise monitoring conducted for the Project, but the City is not known to experience excessive airport and heliport noise levels.

The Project is not located within the vicinity of a private air strip or an airport land use plan and would not expose people residing or working in the Planning Area to excessive airport-related noise levels.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

**Cumulative Impacts**

***Would the project cause substantial adverse cumulative impacts with respect to noise or vibration?***

Analysis of Impacts

Project implementation would result in construction noise and vibration as individual development projects are constructed; however, each individual development would be subject to City regulations and policies regarding construction noise and vibration (See Impact NOISE-1



and NOISE-3). These policies and measures establish the overall goal and intent of the City to protect residents from excessive construction noise and vibration, to require the appropriate evaluation of construction noise and vibration impacts at sensitive receptor locations, and to implement feasible construction noise and vibration control measures when development occurs near noise-sensitive land uses. Therefore, construction noise would not make a cumulatively considerable contribution to a significant cumulative construction noise impact.

Once constructed, development projects would contribute to the potential permanent increases in noise levels evaluated under Impact NOISE-2. The proposed project would not generate significant increases in traffic noise levels on a cumulative basis. The GPTZCU sets forth the City's intent to establish clear and enforced noise regulations for all land uses, to consider operational noise impacts during the development review process, and to limit new development in noise impacted areas unless the development includes mitigation measures to reduce noise levels to acceptable levels. In addition, proposed GPTZCU policies would protect residents from excessive stationary noise sources and ensure new land uses meet the Santa Fe Springs Municipal Code noise standards through evaluation and design considerations. Therefore, future operations would not make a cumulatively considerable contribution to a significant cumulative operational noise impact.

The proposed GPTZCU could facilitate the construction of new development projects near existing BNSF and UPRR rail lines, including development at the Metrolink TOC and MC&C Opportunity sites. Development within approximately 150 feet of existing freight (and commuter) rail corridors could be exposed to excessive freight train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 75 or 78 VdB, respectively; however, as described in Impact NOISE-3, the GPTZCU sets forth the City's intent to consider operational vibration impacts during the development review process and ensure vibration levels are acceptable for specific land use proposals. Therefore, this impact would be less than significant. In general, ground-borne operational vibration impacts are site-specific and do not have the potential to combine with off-site vibration impacts. No cumulative impact would occur.

#### Level of Significance Before Mitigation

The proposed GPTZCU would not result in a cumulative considerable contribution to cumulative noise and vibration impacts.

#### Mitigation Measures

None required.

### **4.13.6 – REFERENCES**

#### Caltrans

- 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Sacramento, California. September 2013.
- 2018. 2018 California State Rail Plan. Sacramento, CA. September 2018.
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<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
BNSF	Burlington Northern Santa Fe Railway
C	Circulation Element
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
D	Distance
dB	Decibel (unweighted)
dBA	Decibels, A-Weighted
DNL / L <sub>dn</sub>	Day-Night Noise Level
EJ	Environmental Justice Element
FHWA	Federal Highway Works Administration
FTA	Federal Transit Administration
GPTZCU	General Plan Targeted Zoning Code Update
HUD	U.S. Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
Hz	Hertz
I	Interstate
In/sec	Inches per Second
kH	Kilohertz
L <sub>eq</sub>	Average / Equivalent Noise Level
L <sub>max</sub>	Maximum Noise Level
L <sub>min</sub>	Minimum Noise Level
LT	Long-term
LU	Land Use Element
N	Noise Element
OITC	Outside-Indoor Transmission Class
OPR	Office of Planning and Research
Pa	Pascals
PRC	Public Resources Code
PPV	Peak Particle Velocity (inches/second)
ST	Short-term
STC	Sound Transmission Class
TNM	Traffic Noise Model
TOC	Transit Oriented Communities

UF	Usage Factor
UPRR	Union Pacific Railroad
VdB	Velocity Decibels
VMT	Vehicle Miles Travelled
§	Section
%	Percent

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## 4.14 – Population and Housing

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This EIR chapter addresses population and housing impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are population and housing impacts identified by the CEQA Guidelines: whether the GPTZCU will induce substantial unplanned population growth or displace substantial numbers of existing people or housing necessitating the construction of replacement housing.

### 4.14.1 – ENVIRONMENTAL SETTING

The Planning Area includes a mix of residential, commercial, industrial, institutional, and open space uses. As of 2020, the City of Santa Fe Springs had 5,675 parcels encompassing 4,741 acres. The Sphere of Influence contained about 5,145 parcels encompassing an additional 1,285 acres (6,026-acre Planning Area) (Santa Fe Springs, 2020). A description of population, housing, and employment characteristics within the Planning Area is provided below.

#### Population

As of 2020, the City estimated that it had a population of 18,292 within the City boundaries and an additional population of 28,626 within the City's Sphere of Influence (Santa Fe Springs, 2020). The California Department of Finance estimates that the January 2020 population for Los Angeles County and the City of Santa Fe Springs was 10,172,951 and 18,295 residents, respectively (DOF, 2020a). The Southern California Association of Governments (SCAG) develops socioeconomic estimates and growth projections including population, households, and employment. These estimates and projections provide the analytical foundation for SCAG's transportation planning and other programs. The growth forecast used for SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS) (Southern California Association of Governments, 2020) for Los Angeles County and the City of Santa Fe Springs are included in Table 4.14-1 (Population Forecasts). It should be noted that the 2020-2045 RTP/SCS is now referred to as "Connect SoCal").

These estimates and projections provide the analytical foundation for SCAG's transportation planning and other programs. However, it should be noted that the RTP/SCS does not include growth forecasts for individual Spheres of Influence. As such, the RTP/SCS only has growth projections for the City of Santa Fe Springs but not for the areas located within its Sphere of Influence. As shown in Table 4.14-1, continued population growth is anticipated by SCAG at both the county and city level. Population growth at the County level from 2020 to 2040 is projected to be approximately 13.2%, while during the same period it is projected to be approximately 13.6% for the City of Santa Fe Springs.

**Table 4.14-1  
Population Forecasts**

	<b>2020</b>	<b>2040</b>	<b>Growth Rate</b>
<b>County of Los Angeles</b>	10,172,951	11,514,800	13.2%
<b>City of Santa Fe Springs</b>	19,100	21,700	13.6%

*Source: 2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction, SCAG.*

#### Housing

As of 2020, SCAG estimated there were 5,800 housing units in the City with a total of 12,152 housing units estimated by the City within the Planning Area (Santa Fe Springs, 2020). According to the California Department of Finance, as of April 2020 there were approximately 3,493,700 housing units within Los Angeles County and approximately 4,976 housing units within the City of Santa Fe Springs (DOF, 2020b). As noted above, SCAG develops socioeconomic estimates and growth projections including population, households, and employment. Table 4.14-2 (Household Forecasts) shows the anticipated growth in households for both Los Angeles County and the City of Santa Fe Springs. As shown in Table 4.14-2, household growth at the County level from 2020 to 2040 is projected to be approximately 13.0%, while during the same period it is projected to be approximately 12.1% for the City of Santa Fe Springs.

**Table 4.14-2  
Household Forecasts**

	<b>2020</b>	<b>2040</b>	<b>Growth Rate</b>
<b>County of Los Angeles</b>	3,493,700	3,946,600	13.0%
<b>City of Santa Fe Springs</b>	5,800	6,500	12.1%

*Source: 2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction, SCAG.*

## Employment

As of 2020, SCAG estimated that there were 58,800 employees in the City although the City has estimated there were only 56,070 employees within the entire Planning Area (Santa Fe Springs, 2020). Table 4.14-3 (Employment Forecasts) shows the anticipated growth in employment for both Los Angeles County and the City of Santa Fe Springs. As shown in Table 4.14-3, employment growth at the County level from 2020 to 2040 is projected to be approximately 12.1%, while during the same period it is projected to be approximately 5.4% for the City of Santa Fe Springs.

**Table 4.14-3  
Employment Forecasts**

	<b>2020</b>	<b>2040</b>	<b>Growth Rate</b>
<b>County of Los Angeles</b>	4,662,500	5,225,800	12.1%
<b>City of Santa Fe Springs</b>	58,800	62,000	5.4%

*Source: 2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction, SCAG.*

## 4.14.2 – REGULATORY FRAMEWORK

### Federal

**U.S. Department of Housing and Urban Development (HUD).** HUD oversees the Federal Housing Administration (FHA), the largest mortgage insurer in the world, and regulates housing industry business. Provides Project-Based Rental Assistance and other rental assistance programs, which provide support for low and very low-income households.

### State

**California Department of Housing and Community Development (HCD).** HCD enforces standards for housing construction, maintenance of farmworker housing, and manufactured/factory-built homes. HCD also proposes amendments to California's residential building standards for new construction to the California Building Standards Commission and

helps train local governments to better understand new requirements. HCD works with regional governments to determine their housing needs and reviews every city and county's housing element of the general plan to determine compliance with State law.

**Housing Element Law (California Government Code Article 10.6).** The State has established detailed legal requirements for the General Plan Update (GPU) Housing Element beyond Section 65300. State Law requires each City and County to prepare and maintain a current Housing Element as part of the community's GPU to attain a Statewide Goal of providing "decent housing and a suitable living environment for every California family." Under State law, Housing Elements must be updated every eight years and reviewed by the California Department of Housing and Community Development (HCD).

**California Department of Finance Demographic Research Unit.** The Demographic Research Unit uses population data to establish appropriation limitations; distribute various federal program funds and aid in the planning and evaluation of programs. State agencies and departments, local governments, the federal government, school districts, public utilities, the private sector, and the public use the data. Staff provide demographic research and analysis, produce current population estimates, and future projections of population and school enrollment, and disseminate U.S. Census data.

## Regional

**Los Angeles County Housing Authority (LACHA).** The LACHA is a public agency chartered by the State to administer the development, rehabilitation or financing of affordable housing programs. The LACHA works with the City to administer the Housing Choice Vouchers Program; support the County Housing Authority's applications for additional allocations; and assist the Housing Authority in marketing the program to home seekers and property owners.

**Southern California Association of Governments (SCAG).** Southern California Association of Governments (SCAG) is a joint powers authority, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under State law as a Regional Transportation Planning Agency and a Council of Governments.

SCAG developed regional growth forecasts for its 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS) (Southern California Association of Governments, 2020) for Los Angeles County and the City of Santa Fe Springs. It should be noted that the 2020-2045 RTP/SCS is now referred to as "Connect SoCal").

**Regional Housing Needs Assessment (RHNA).** RHNA is developed through a process directed by SCAG. The RHNA represents the number of housing units divided into various household income categories—that have been calculated to represent the City's "fair share" of the regional housing need during the Housing Element planning period. By law, the City is required to show in the Housing Element that adequate sites are available to accommodate construction of new housing units consistent with the RHNA.



## Local

### 2021 General Plan Update

Similar to the existing General Plan, the proposed GPTZCU does not have goals or policies that specifically address population, housing, or employment growth, but many of its goals and policies encourage and/or accommodate land use changes and growth in the future (i.e., additional housing units, population, and employment) and consistency with the goals of regional plans and planning efforts like SCAG with its 2020-2045 RTP/SCS and the Regional Housing Needs Assessment (RHNA).

#### 4.14.3 – SIGNIFICANCE THRESHOLDS

As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the GPTZCU could result in a significant impact if it would:

- A. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- B. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?
- C. Cause substantial adverse cumulative impacts with respect to population and housing?

#### 4.14.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to population and housing that could result from the implementation of the GPTZCU and recommends mitigation measures as needed to reduce significant impacts.

### Population Growth

***Impact POP-1 – Would the GPTZCU induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

### Analysis of Impacts

#### City-wide

As of 2020, the City estimated that it had a population of 18,292 within the City boundaries and an additional population of 28,626 within the City's Sphere of Influence for a total population of 46,918 persons within the Planning Area (Santa Fe Springs, 2020). According to the State Department of Finance, the estimated population of the City in 2020 was 18,295 (DOF 2021). According to SCAG estimates, the City is expected to grow in population from 19,100 in 2020 to 21,700 by 2040, which represents an increase of 13.6%. However, under the proposed GPTZCU, the Planning Area is anticipated to support a population of up to 60,808 in 2040, which represents an increase of 29.6% over existing conditions. During the same period, the number of dwelling units in the Planning Area supported by the GPTZCU would increase from 12,152 dwelling units in 2020 to 16,724 dwelling units in 2040, representing an increase of 37.6%. According to SCAG estimates the number of households in the City is anticipated to increase from 5,800 in 2020 to 6,500 in 2040, which only represents an increase of 12.1%.

Therefore, potential population growth under the GPTZCU would exceed the projected population growth forecast from the SCAG.

The rollover RHNA from the previous planning period (2014-2021) combined with the current remaining RHNA (2021-2029) yields a total RHNA of 952 units that must be accommodated in the 2021-2029 Housing Element. Unit distribution is as follows: 253 extremely low/very low-income units, 159 low-income units, 152 moderate-income units, and 388 above moderate-income units. Overall, the City has the ability to adequately accommodate and exceed RHNA obligations. Future development would not induce substantial population unplanned by the City based on the GPTZCU, but SCAG projections do not currently acknowledge the population growth impacts of the City's current RHNA allocation.

#### Key Opportunity Sites

Development of the four opportunity sites will be consistent with the GPTZCU although the growth planned by the City and indicated by the RHNA allocation may not be consistent with regional population growth projections (SCAG RTP/SCS). Development of the four opportunity sites would not induce substantial population unplanned by the City, although SCAG projections do not currently acknowledge the growth impacts of the City's current RHNA allocation.

#### General Plan Update

Although the GPTZCU does not have goals and policies that specifically address population growth, it does have several goals and policies encourage and/or accommodate land use changes and growth in the future (i.e., additional population). As discussed in Section 4.11, Land Use and Planning, the GPTZCU is consistent with the goals of the SCAG 2020-2045 RTP/SCS by providing a variety of travel modes within the Planning Area such as transit, pedestrian sidewalks, and bicycle lanes. Land Use Element Goals LU-1, LU-2, LU-3, and LU-10, Environmental Justice Goal EJ-1, and Circulation Goals C-1 through C-4, along with their supporting policies, help achieve this consistency. However, the growth anticipated by the City under the GPTZCU exceeds SCAG population projections that do not take into account SCAG's RHNA allocation for the City of Santa Fe Springs.

The General Plan does not determine the rate of growth in Santa Fe Springs, rather, it allows for growth as it occurs based on market forces in accordance with the City's policies for type, intensity, and location as set forth in the GPTZCU. The Planning Area is almost completely urbanized with very little vacant land (see also "Key Opportunity Sites" described above). Any new development that would occur under the proposed GPTZCU would consist of infill development and/or redevelopment of existing uses.

The City is planning for population growth and has incorporated policies to match this forecasted growth. To meet the physical needs of growth, the City will prioritize infrastructure improvements, code enforcement, and public services provision in high-need areas. To balance the growth, the City will support development and growth that balance residential, commercial, industrial, and open space uses in a manner that meet the needs of the community without overburdening community resources and infrastructure. To plan for the intensification of land use, the City has adopted policies to encourage infill development, including revitalization of underutilized and vacant infill properties closest to available infrastructure and community services.

Physical impacts from increased population and housing growth in itself are less than significant. Indirect impacts of population growth are addressed in other topical area chapters in the EIR, specifically:

- Air Quality
- Energy
- Greenhouse Gases
- Noise
- Public Services
- Recreation
- Transportation
- Utilities and Services

The GPTZCU would not induce significant population growth unplanned by the City that would not otherwise occur in Santa Fe Springs; therefore, the overall impacts of the GPTZCU regarding population growth would be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

No mitigation is required.

#### **Housing Growth**

***Impact POP-2 – Would the GPTZCU displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

#### **Analysis of Impacts**

##### City-wide

The GPTZCU does not propose any policies that are intended to directly or indirectly result in displacement or demolition of any permanent or temporary residential structures, or otherwise result in displacement of people or businesses. Overall, the GPTZCU policies would increase the number of housing units in the City and Planning Area. According to SCAG estimates, the City's housing stock consisted of 5,800 total units and the City was the place of employment for 58,800 workers in 2020 (SCAG 2020).

The rollover RHNA from the previous planning period (2014-2021) combined with the current remaining RHNA (2021-2029) yields a total RHNA of 952 units that must be accommodated in the 2021-2029 Housing Element. Unit distribution is as follows: 253 extremely low/very low-income units, 159 low-income units, 152 moderate-income units, and 388 above moderate-income units. Overall, the City has the ability to adequately accommodate and exceed RHNA obligations. Future development would not induce substantial housing unplanned by the City

based on the GPTZCU, but SCAG projections do not currently acknowledge the housing growth impacts of the City's current RHNA allocation.

Over time, some older existing structures might be removed due to deterioration. Others may be replaced by more efficient and valuable land uses. Redevelopment could occur whether the proposed GPTZCU is adopted or not; therefore, the proposed GPTZCU would have no effect involving displacement of housing or businesses. Additionally, there are no specific policies included within the GPTZCU requiring or encouraging demolition of existing structures, so the impact will be less than significant.

#### Key Opportunity Sites

Development of the four opportunity sites will be consistent with the GPTZCU although the growth planned by the City and indicated by the RHNA allocation may not be consistent with regional housing growth projections (SCAG RTP/SCS). Development of the four opportunity sites would not induce substantial housing unplanned by the City, although SCAG projections do not currently acknowledge the housing growth impacts of the City's current RHNA allocation.

#### General Plan Update

Although the GPTZCU does not have goals and policies that specifically address housing growth per se, it does have several goals and policies encourage and/or accommodate land use changes and growth in the future (i.e., additional population). As discussed in Section 4.11, Land Use and Planning, the GPTZCU is consistent with the goals of the SCAG 2020-2045 RTP/SCS, by providing a variety of travel modes within the Planning Area such as transit, pedestrian sidewalks, and bicycle lanes. Land Use Element Goals LU-1, LU-2, LU-3, and LU-10, Environmental Justice Goal EJ-1, and Circulation Goals C-1 through C-4, along with their supporting policies, help achieve this consistency. However, the growth anticipated by the City under the GPTZCU exceeds SCAG housing projections that do not take into account SCAG's RHNA allocation for the City of Santa Fe Springs.

The General Plan does not determine the rate of housing growth in Santa Fe Springs, rather, it allows for growth as it occurs based on market forces in accordance with the City's policies for type, intensity, and location as set forth in the GPTZCU. The Planning Area is almost completely urbanized with very little vacant land (see also "Key Opportunity Sites" described above). Any new development that would occur under the proposed GPTZCU would consist of infill development and/or redevelopment of existing uses.

The City is planning for housing growth and has incorporated policies to match this forecasted growth. To meet the physical needs of growth, the City will prioritize infrastructure improvements, code enforcement, and public services provision in high-need areas. To balance the growth, the City will support development that balances residential, commercial, industrial, and open space uses in a manner that meet the needs of the community without overburdening its resources and infrastructure. To plan for the intensification of land use, the City has adopted policies to encourage infill development, including revitalization of underutilized and vacant infill properties closest to available infrastructure and community services.

The GPTZCU would not induce significant housing growth unplanned by the City that would not otherwise occur in Santa Fe Springs; therefore, the overall impacts of the GPTZCU regarding housing growth would be less than significant.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Cumulative Growth**

***Impact POP-3 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to population and housing?***

### **Analysis of Impacts**

Implementation of the GPTZCU would result in increased residential density which would increase the population of the City. The City would ensure that existing regulations and land use policies are implemented to avoid or reduce an identified potential environmental impact. Although some existing housing units are susceptible to redevelopment, the amount of new housing that will be needed exceeds the housing that is likely to be replaced.

In most cases, no one goal, policy, or implementation measure (“policy” for short) is expected to completely avoid or reduce an identified potential environmental impact. However, the collective, cumulative mitigating benefits of the policies listed above will result in less than significant impacts related to population and housing growth on a regional basis. This conclusion is consistent with the purpose and use of a program EIR for the GPTZCU (see EIR Introduction, Chapter 1).

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

#### 4.14.5 – REFERENCES

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## **4.15 – Public Services**

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This EIR chapter addresses public services impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are public services impacts identified by the CEQA Guidelines: whether the GPTZCU will result in substantial adverse physical impacts associated with the provision of public services and facilities related to police, fire, schools, parks, and other public facilities which could cause environmental impacts.

### **4.15.1 – ENVIRONMENTAL SETTING**

#### **Community Facilities**

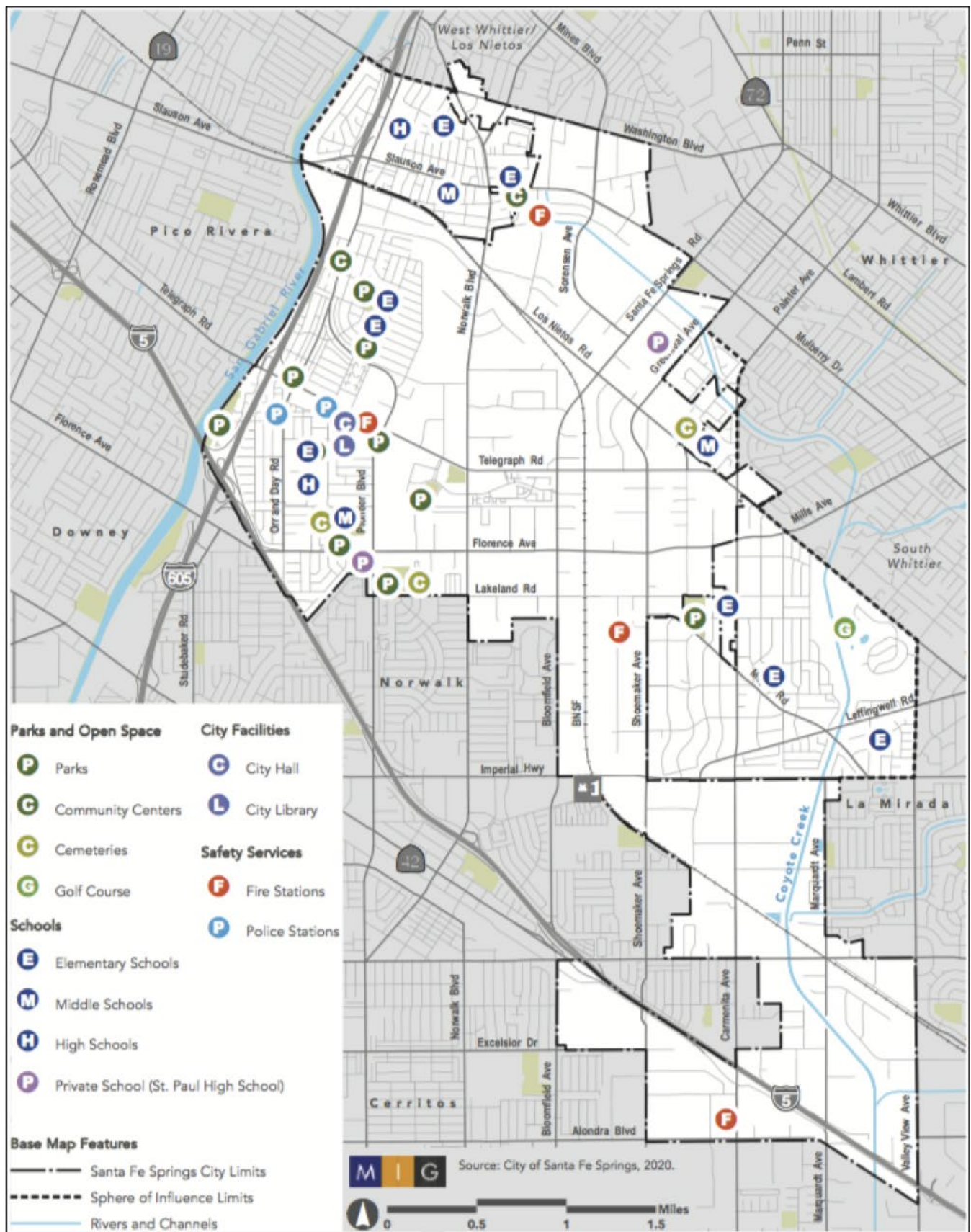
Community facilities consist of libraries, learning centers, community centers, recreational buildings, and police and fire protection service stations (Santa Fe Springs, 2020). Many of the community facilities are centrally located at the Santa Fe Springs Civic Center, which includes City Hall, Town Center Hall, the Santa Fe Springs City Library, the Santa Fe Springs Aquatic Center, Soaring Dreams Plaza, the Clarke Estate, and Santa Fe Springs Community Garden. The activity center at the Los Nietos Park includes a fitness facility with weight training and cardio equipment, indoor racquetball courts, a boxing training facility, indoor basketball courts, locker rooms and a fitness court currently being constructed. Sports leagues and fitness programs, such as youth gymnastics and boxing, are held at the activity center. The Betty Wilson Center, located at Lake Center Athletic Park Athletic Park, houses the Police Services' Family and Youth Intervention Program (FYIP), which provides a range of services to families and youth experiencing relationship and developmental challenges. The City provides family, senior, and case management services at the Gus Velasco Neighborhood Center, including outreach, information, and programming for youth, families, and seniors around topics related to family unity, health and wellness, and inter-generational programming. Services include an emergency food pantry, community closet, legal services, notary services, volunteer income tax assistance program, utility assistance program, recreational and educational classes, a computer lab, and the William C. Gordon Learning Center.

Los Angeles County's Workforce Development, Aging, and Community Services Department operates the Los Nietos Community and Senior Center. The Center is a multi-purpose facility designed to enhance the community with a range of educational, social, and recreational activities. Center staff coordinate with County departments and non-profit agencies to provide information and referrals, form completion assistance, and translation services. Other services include an exercise room, food bank, resource fairs, community forums, flu shot clinic, and assistance in reporting elder abuse. Below is a discussion of the City's Public Services including fire protection, police protection, schools, parks and recreation facilities, and libraries. Exhibit 4.15-1 (Community Facilities) shows the community facilities within the Planning Area.

The City operates one library facility and the William C. Gordon Learning Center, located at the Gus Velasco Neighborhood Center on Pioneer Boulevard, as shown in Exhibit 4.15-1. The Santa Fe Springs Public Library, established in 1961, offers a wide range of programs for children, teens, adults, and seniors. Both the library and learning center offer internet access and provide free Wi-Fi.



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## Exhibit 4.15-1 Community Facilities

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

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## Fire Protection

The Santa Fe Springs Fire-Rescue Department (Fire Department) provides emergency services to residents and businesses across the City of Santa Fe Springs, covering approximately nine square miles. Four City fire stations are located within Santa Fe Springs. All of the stations were built prior to the 1960s except for the fire headquarters which was built in the 1970s. As shown in Exhibit 4.15-2 (Fire Station Service Areas by Distance), most of the Planning Area is located within a two-mile drive to one or more of these City fire stations.

The Los Angeles County Fire Department (LACFD) provides services to the unincorporated communities within the City's Sphere of Influence. LACFD Station 25 serves the community of Los Nietos, and LACFD Station 96 serves the community of West Whittier.

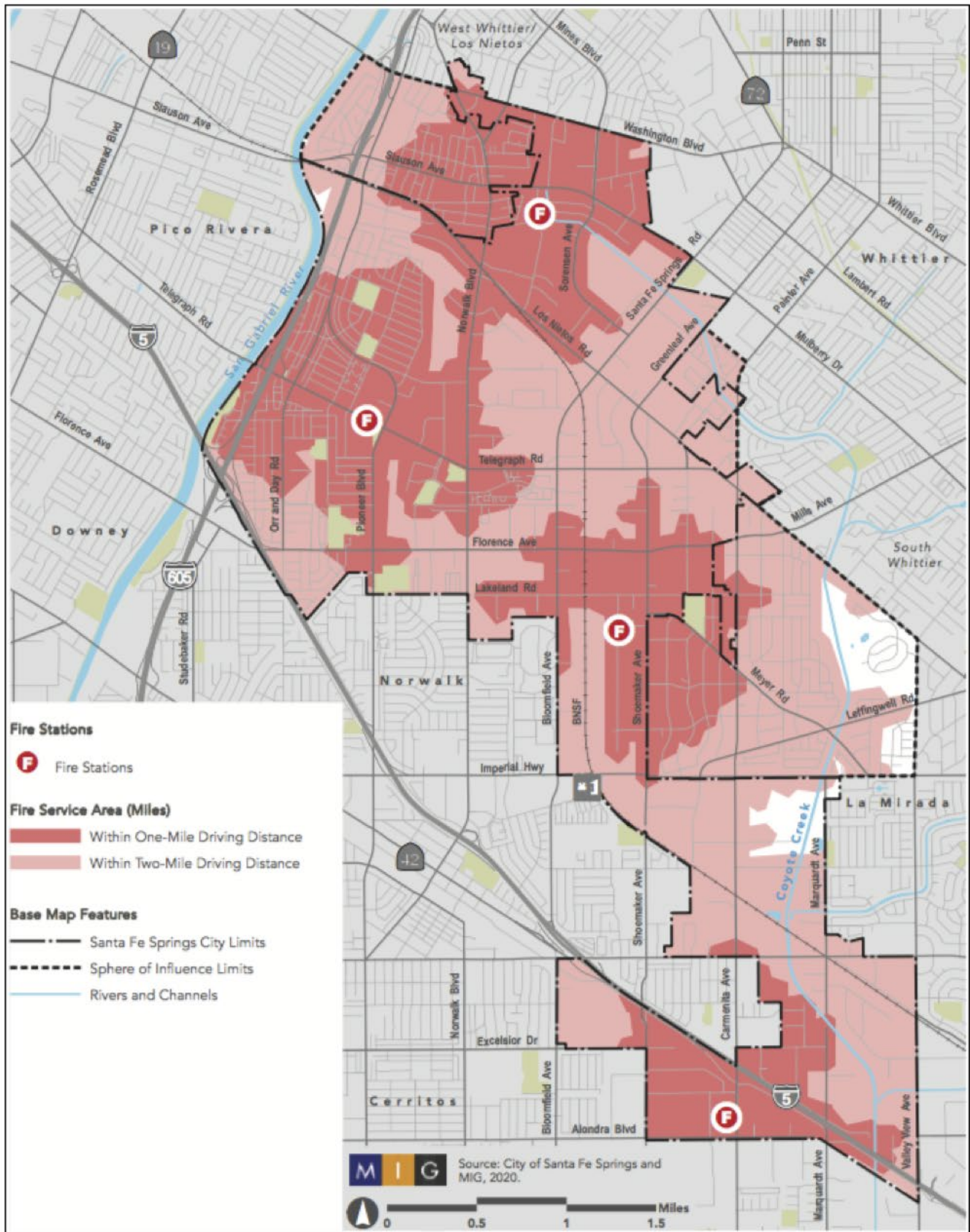
The City's Fire-Rescue Department manages three Divisions: Operations, Fire Prevention, and Environmental Protection. The Department's Operations Division provides fire suppression, emergency medical services (EMS), hazardous materials response, and urban search and rescue. The Fire Prevention Division provides plan check, inspection, and public education services. This Division is also responsible for determining fire causes and investigating suspicious fires. The Environmental Protection Division acts as the Certified Unified Program Agency (CUPA). CUPA files required information online in accordance with Assembly Bill 2286, including facility data related to hazardous material regulatory activities, chemical inventories, underground and aboveground storage tanks, and hazardous waste generation. Wildfire hazards are nonexistent in the City. Urban fire risks can occur from accidents associated with methane gas release, oil production facilities, industrial or manufacturing facilities, underground pipelines, and power transmission lines.

**Urban Search and Rescue.** Some of the City's firefighters have received special training for urban search and rescue, which involves the location, rescue, and initial medical stabilization of victims trapped in confined spaces. Structural collapse is the most common cause of victims being trapped, but victims may also be trapped in transportation accidents, industrial structures, and collapsed trenches. Urban search and rescue staff are needed for a variety of emergencies or disasters such as earthquakes, storms, floods, dam failures, technological accidents, terrorist activities, and hazardous materials releases. The Fire Department is a member of the Office of Emergency Services Regional Urban Search and Rescue Task Force 2.

**Hazardous Materials Response.** The City's Fire-Rescue Department also manages a Hazardous Materials Response (HazMat) Team made up of members from the Operations and Environmental Protection Divisions. The HazMat Team members have all been trained as Hazardous Materials Specialists, which requires over 200 hours of initial training. Team members maintain competency by participating in continuing education activities each month. The Fire Department meets the equipment standards of a Type II HazMat Team as set forth by California FIRESCOPE. These standards include requirements for field testing, air monitoring, sampling, radiation monitoring and detection, chemical protective clothing, decontamination, communication, and respiratory protection. The HazMat Team responds to hazardous materials incidents of varying levels of complexity, from small spills of vehicle fluids, paint products, or other household consumer products to large releases of industrial chemicals that pose a major hazard to life, environment, and property. The HazMat Team also responds to unknown materials that are abandoned, illegally dumped, or spilled.,

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**Emergency Medical Services.** In addition to its usual firefighting duties, the Santa Fe Springs Fire Department employs firefighters who are highly trained in delivering Emergency Medical Services. The minimum level of training is Emergency Medical Technician (EMT). This training ensures that the City's firefighters can perform functions such as CPR, basic airway procedures, splinting, and emergency childbirth. The Department's EMTs can begin basic life-saving measures and provide assistance to paramedics, who provide the next level of emergency care. Paramedics carry out advanced life support procedures, including administering medications, establishing intravenous lines, cardiac monitoring, advanced airway procedures, and recognition of serious medical and trauma emergencies through a physical assessment.

## **Police Protection**

The City of Santa Fe Springs contracts with the Whittier Police Department for law enforcement services. The Department operates from a Police Services Center on Telegraph Road in Santa Fe Springs (see previous Exhibit 4.15-1). While a portion of the City, including its western residential area, is located within a two-mile drive to the Police Services Center, much of the City is located further away. The Whittier Police Department is responsible for the management of all law enforcement services within the City of Santa Fe Springs, with the exception of jailing and dispatch. The City is divided into three law enforcement areas. Each area has a dedicated sergeant and a team of police officers and Public Safety Officers (PSOs). The Santa Fe Springs Policing team consists of Whittier and Santa Fe Springs personnel. The team operates a patrol division, detective bureau, records bureau, Problem-Oriented Policing Team, school resources officer, traffic enforcement, tactical team, and a special occurrence response team (SORT). A team of PSO's help patrol officers with daily tasks such as report taking and traffic control. Law enforcement services include:

- Community based, problem-oriented policing
- Police officer neighborhood patrol and crime solving
- Detectives and specialized gang/narcotic and problem policing unit
- Traffic and parking enforcement
- Foot, bicycle, and motorcycle patrols
- Canine officer
- Crime scene investigation
- Investigative support units in arson, homicide, robbery, forgery, fraud, sex crimes, and child abuse
- Crime identification and analysis teams and task forces
- Court, district attorney, parole, and probation department coordination

**Family and Youth Intervention Programs.** Under Polices Services, the City operates the Santa Fe Springs Family and Youth Intervention Program (FYIP), which is intended to positively engage families and their children ages 7 through 17 who are experiencing relationship challenges and/or adverse behavior negatively impacting their school and home environment. Within this larger program is the Parent Project, which manages a youth development group, community services, diversity program, and School Attendance Review Team. These programs are described below:

- **Parent Project.** The Parent Program offers a 10-week parenting series that teaches parents how to manage their children's behavior, prevent or intervene in alcohol or drug use, improve school attendance, and performance and access resources.
- **Youth Development/Group.** The Youth Development/Group connects families and youth with an educational case manager who assists participants in developing holistic,



individual case plans, coordinating integrated services, and managing care and follow-up services.

- **Community Service.** The Community Service component of FYIP assigns youth to supervised community projects that teach responsibility and civic commitment in addition to fulfilling court mandates. Referrals are collected from parents, schools, community agencies, City programs, law enforcement, and youth.
- **Diversity Program/Chavez Event.** The Diversity Program/Chavez Event focuses on educating students and promoting cultural competency through speakers, workshops, and cultural programs.
- **School Attendance Review Team.** The School Attendance Review Team (SART) was established through a cooperative agreement between the City of Santa Fe Springs, the Little Lake School District, Los Nietos School District, Whittier Union High School District, and South Whittier School District to intervene and redirect student behavior that impedes progress in school. SART acts as an intermediary between schools, the School Attendance Review Board, and the juvenile court, and facilitates the implementation of community, school, and home solutions before students are referred to the review board, District Attorney, or juvenile court.

**Code Enforcement and Animal Control.** In addition to law enforcement services, the Department of Police Services provides code enforcement and animal control services and manages community programs. The Code Enforcement Division enforces the City's entire Municipal Code. Frequent enforcement items include hazardous property conditions, garage conversions, illegal businesses operating from residences, overgrown vegetation, and illegal land uses, among others. The City's licensing program and the Southeast Area Animal Control Authority (SEAACA) protect people and animals and promote human animal care and treatment through education and enforcement. Dogs must be licensed yearly at the Police Services Center. Owners must show proof of current vaccinations, present a sterility certificate, and pay a licensing fee. The SEAACA assists in capturing wildlife that is sick, injured, or posing a threat to public safety. Community members are directed to report incidents of coyote aggression and attacks to the SEAACA.

**Crime Data.** Crime rates in the City have fallen dramatically since the 1990s. Even so, violent and property crime rates are higher relative to those across California and the United States more broadly. In 2018, the latest year for which crime data are available, 74 violent crimes and 1,198 property crimes were reported to the United States Department of Justice Federal Bureau of Investigation (FBI), which translates to 428.9 violent crimes and 6,514.4 property crimes per 100,000 people. The overall crime rate in 2018 was 1,198 violent and property crimes per 100,000 people.

**Table 4.15-1**  
**Reported Annual Crime in Santa Fe Springs**

Crime Types (2018)	Santa Fe Springs		California per 100,000 Persons	National per 100,000 Persons
	Reported Incidents	per 100,000 Persons		
Violent Crime	105	571.9	447.4	375.7
Property Crime	991	5,397.3	2,380.4	2,596.1
Total	1,096	5,969.1	--	--

Source: FBI Uniform Crime Reporting Program. 2019, (reporting data: 2018).

## Schools

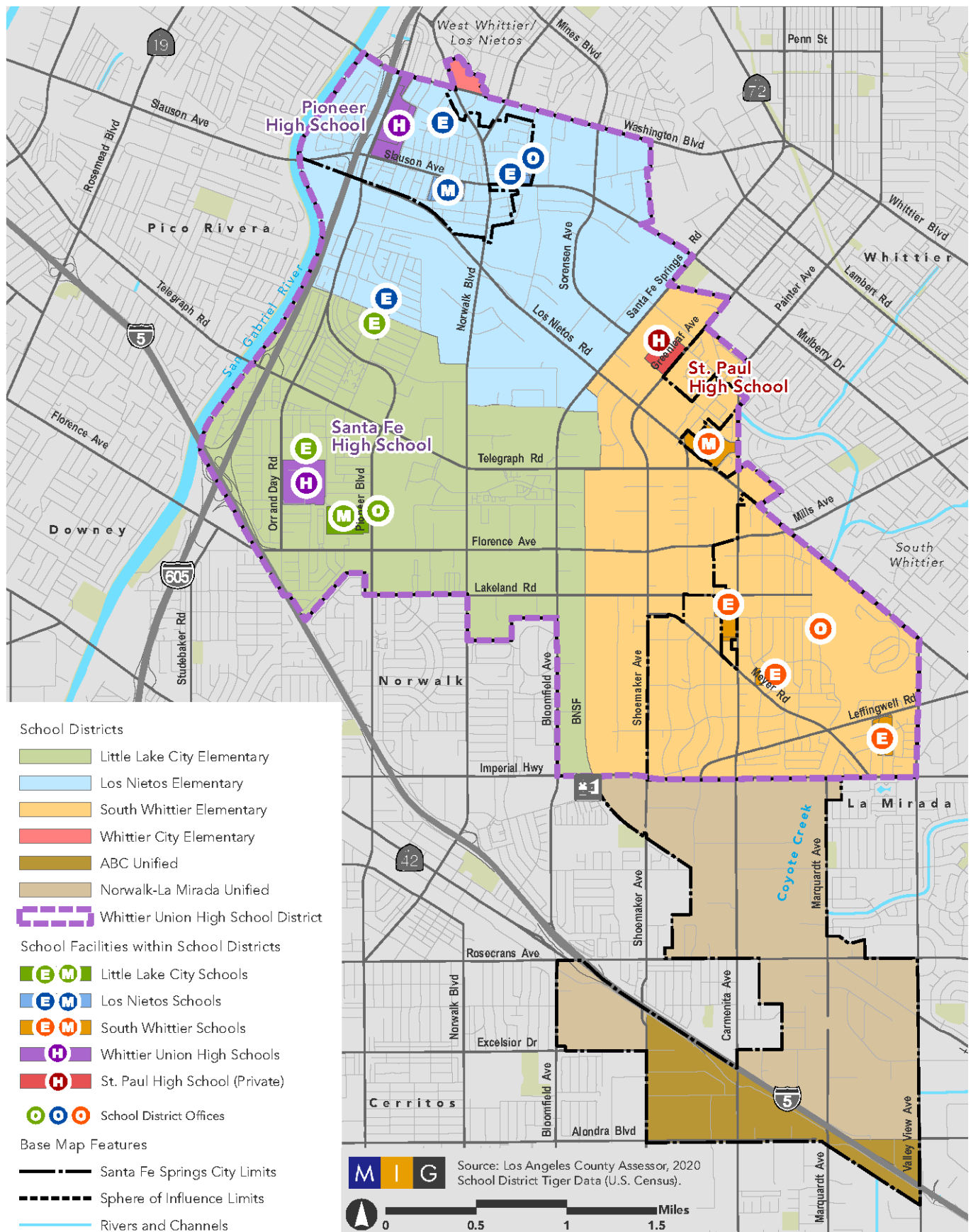
Planning Area residents are served by four school districts: Little Lake City School District, Los Nietos School District, South Whittier School District, and Whittier Union High School District, as shown in Exhibit 4.15-3, School Districts and Schools. These school districts operate 13 schools within the Planning Area with nearly 9,000 students enrolled. The ABC Unified and Norwalk-La Mirada school districts do not operate any schools within the Planning Area, but their boundaries overlap industrial areas in the southern part of the City. In addition to these public schools, three private schools operate within the Planning Area, including St. Paul High School, Santa Fe Springs Christian School, and St. Pius X Parish School. These schools enroll approximately 800 students, as shown in Table 4.15-2, Enrollment by School.

**Table 4.15-2  
Enrollment by School**

School Districts and Schools	Student Enrollment (2019-2020)		
	City	Sphere of Influence	Planning Area Total
<b>Little Lake School District</b>			
Jersey Avenue Elementary School	439	--	439
Lakeview Elementary School	523	--	523
Lake Center Middle School	919	--	919
<b>Los Nietos School District</b>			
Ada S. Nelson Elementary School	--	388	407
Aeolian Elementary School	--	414	414
Rancho Santa Gertrudes Elementary School	336	--	336
Los Nietos Middle School	--	355	355
<b>South Whittier School District</b>			
Carmela Elementary School	373	--	373
Loma Vista Elementary School / Monte Vista Middle School	--	798	798
Los Altos School	--	341	341
Richard Graves Middle School	622		622
<b>Whittier Union High School</b>			
Pioneer High School	--	1,181	1,181
Santa Fe High School	2,054	--	2,054
<b>Public Schools Total</b>	<b>5,266</b>	<b>3,477</b>	<b>8,762</b>
<b>Private Schools</b>			
St. Paul High School	532	--	532
Santa Fe Springs Christian School	128	--	128
St. Pius X Parish School	142	--	142
<b>Private Schools Total</b>	<b>802</b>	<b>--</b>	<b>802</b>

Source: California Department of Education, 2020.

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## Exhibit 4.15-3 School Districts and Schools

Santa Fe Springs General Plan Update and Targeted Zoning Code Update  
Santa Fe Springs, California

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## Parks and Recreation Facilities

As shown in Table 4.15-3, Parks and Recreation Facilities, Santa Fe Springs manages 80.3 acres of parkland across 15 parks and recreational facilities, divided into parks, parkettes, and other recreational facilities.

Facility	Type	Acres	Amenities
<b>Santa Fe Springs Recreation Facilities</b>			
<i>City Parks</i>			
Los Nietos Park	Park	11.0	Athletic fields (baseball/softball), basketball courts, children's play area (playgrounds), equipment for use, handball/racquetball, horseshoe pits, lighted facilities, picnic areas with bbq grills, restrooms, tennis courts, wading pool, child care center
Santa Fe Springs Park	Park	10.8	Athletic fields (baseball/softball), basketball courts, children's play area (playgrounds), equipment for use, handball/racquetball, horseshoe pits, picnic areas with bbq grills, available for rent, playing fields, restrooms, wading pool, parking lot
Santa Fe Springs Athletic Fields	Park	7.0	Athletic fields (baseball/softball), playing fields, playground
Little Lake Park	Park	19.8	Athletic fields (baseball/softball), basketball courts, equipment for use, formal picnic areas, playing fields, children's play area (playgrounds), horseshoe pits, lighted facilities, picnic areas with bbq grills, sheltered picnic area available for rent, wading pool, parking lot
Lake Center Athletic Park	Park	4.5	Baseball/softball fields, basketball courts, play fields, playgrounds, picnic areas
Lakeview Park	Park	6.7	Athletic fields, basketball courts, playground, handball/racquetball, picnic Areas with BBQ grills, restrooms, wading pool
<i>Parkettes</i>			
Bradwell Avenue Parkette	Parkette	0.2	Playground, turf area, and benches
Davenrich Street Parkette	Parkette	0.1	Playground, turf area, and benches
Longworth Avenue Parkette	Parkette	0.2	Playground, turf area, and benches
<i>Other City Recreational Facilities</i>			
Clark Estate	Historical Site and Events Center	6.0	Historic building, rental facilities
Friendship Park	Passive Green Space	0.2	Monument and passive space
Heritage Park	Historical Site and Passive Green Space	7.5	Carriage Barn Museum, Tankhouse Windmill Building, Plant Conservatory, special event rentals, picnic areas with BBQ grills, restrooms, parking lot
Santa Fe Springs Aquatics Center	Aquatics Facility	2.3	Outdoor swimming pools, indoor swimming pool
Santa Fe Springs Community Garden	Community Garden	2.0	Gardening parcels for rent, equipment for use, picnic area

#### 4.15 – Public Services

Facility	Type	Acres	Amenities
Soaring Dreams Plaza	Passive Green Space	2.0	Bronze statues and open lawn
<b>Santa Fe Springs (City) Total</b>		<b>80.3</b>	
<b>Other Recreation Facilities - Sphere of Influence (SOI)</b>			
Amelia Mayberry Park	Los Angeles County Park	14.4	Athletic fields (baseball/softball), basketball courts, senior center, barbecues, playgrounds, community gardens, fitness par courses, fitness zones, formal picnic areas, picnic tables, splash pads
Candlewood Country Club (Private)	Private Golf Course	83.0	Clubhouse and Golfcourse
<b>Other Recreation Facilities (SOI) Total</b>		<b>97.4</b>	

Source: City of Santa Fe Springs, 2020.

The park facilities vary in size and amenities, with some that include community facilities within the park. Los Angeles County manages one County park (Amelia Mayberry) in the City. Candlewood Country Club is a private golf course in the City's Sphere of Influence. The National Park and Recreation Association (NRPA) provides information about national trends in parkland provision, noting that the standards vary for rural, suburban or urban locations. NRPA's 2020 NRPA Agency Performance Review reported that a city with a population under 20,000 typically provides between 5.2 to 20.8 acres of parkland per 1,000 residents. In Southern California, a more typical figure is three to five acres of park per 1,000 residents. With a total population of 18,295 in 2020, Santa Fe Springs has 4.7 acres of parkland per 1,000 residents.

Since 2010, park and recreation planning best practices have evolved to be more flexible and include community participation to ensure metrics and standards that are locally relevant. Many agencies now measure parkland service and distribution by evaluating how many of their residents live within a 10-minute walk, or one-half mile, of a park. Seventy-seven percent of City residents live within one-quarter mile—or a five-minute walk—of a City or county park, and 91% of City residents live within one-half mile, or a 10-minute walk. Small residential developments along the edges of the City's boundary, including those near Norwalk Boulevard, Slauson Avenue, Greenleaf Avenue, and Carmenita Road, are not within walking distance to a park. These areas represent less than 10% of the City's total population and are in areas designated as Disadvantaged Communities. Residents within adjacent County unincorporated areas appear to enjoy less access to parks, with only 7% of residents within a five-minute walk and 15% living within one-half mile of a park. Nearly 80% do not live within one-half mile of a park. West Whittier/Los Nietos and portions of South Whittier Sphere of Influence areas include limited walking access to parks. These areas are also designated as Disadvantaged Communities. Exhibit 4.15-4 (Parks and Recreation Facilities) shows the location of parks and recreation facilities within the Planning Area and other park facilities in the area and park access.







#### 4.4.2 – REGULATORY FRAMEWORK

##### Federal

**Standardized Emergency Management System and National Incident Management System (SEMS).** According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander. Additional information regarding the City's SEMS program can be found in Section 4.9 Hazards and Hazardous Waste.

##### State

**California Building Code.** The 2010 California Building Code (CBC) became effective January 1, 2011, including Part 9 of Title 24, the California Fire Code. Section 701A.3.2 of the CBC requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, comply with all sections of the chapter.

**California Health and Safety Code (Sections 13000 et seq.).** This code establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

**California Fire Code.** The City has adopted the most recent California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains.

##### Regional

**Los Angeles County Fire Department.** The City's Sphere of Influence is served by the Los Angeles County Fire Department (LACFD) for fire protection and rescue services and emergency medical services. The LACFD also has mutual aid agreements with surrounding jurisdictions for assistance when needed during major fire events, including the City of Santa Fe Springs. The LACFD establishes incident command centers and emergency operation centers as necessary depending on the involved event.

**Los Angeles County Office of Emergency Management (OEM).** The OEM has the responsibility of comprehensively planning for, responding to and recovering from large-scale emergencies and disasters that impact Los Angeles County. OEM's work is accomplished in partnership and collaboration with first response agencies, and non-profit, private sector and government partners.

**Education Code Section 17620.** The Code allows school districts to assess fees on new residential and commercial construction within their respective boundaries. These fees can be collected without special city or county approval, to fund the construction of new school facilities necessitated by the impact of residential and commercial development activity. In addition, these fees can also be used to fund the reconstruction of school facilities or reopening schools

to accommodate development-related enrollment growth. Fees are collected immediately prior to the time of the issuance of a building permit by the City or the County.

**Leroy F. Green School Facilities Act (1998).** California Government Code Section 65995 sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the District.

**Quimby Act (1975).** The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland.

## Local

### 2021 General Plan Update

The proposed GPTZCU includes the following policies and programs to minimize potential damage and hazards to public services:

#### *Safety Element*

**Goal S-7: A fire department skilled at responding effectively to the needs of the community.**

**Policy S-7.1: Adequate Fire Suppression Resources.** Ensure that the City has adequate Fire Department resources to meet response time standards, keep pace with growth, and provide a high level of service.

**Policy S-7.2: Fire Stations Modernization.** Evaluate the need to replace, upgrade, and/or modernize existing fire stations.

**Policy S-7.3: Fire Technology.** Continue to seek technological and information system advances which will enhance the efficiency and effectiveness of the Fire Department.

**Policy S-7.4: Inter-Agency Coordination.** Seek the highest levels of intra-city and inter-agency coordination of fire scene operations.

**Policy S-7.5: Urban Fire Enforcement.** Enforce fire standards and regulations in the review of building plans and conduct of building inspections.

**Policy S-7.6: Fire Suppression Systems.** Regulate and enforce the installation of fire protection water system standards for new construction projects, including the installation of fire hydrants providing adequate fire flow, fire sprinklers, and suppression systems.

**Policy S-7.7: Fire Prevention Services.** Provide effective fire prevention services through the review of proposed development projects, evaluation of industrial operations and facilities, examination of the transport of hazardous materials, and identification of oil and gas pipeline networks.

**Policy S-7.8: Highest Standardization Rating.** Maintain the highest possible International Organization for Standardization (ISO) rating of the City's Fire Department.

**Goal S-8: A highly responsive, well equipped modern police force attuned to community needs.**

**Policy S-8.1: Adequate Police Resources.** Maintain adequate resources (stations, personnel, and equipment) to enable the police services to meet response time standards, provide high levels of service, use modern law enforcement practices, and serve as safety ambassadors within the community.

**Policy S-8.2: Cultural Competency Training.** Ensure that all police personnel receive comprehensive cultural competency training to better serve the needs of the City's diverse population.

**Policy S-8.3: Community Policing.** Promote community policing initiatives and expand neighborhood watch and similar programs, such as crime prevention education and citizens' patrol programs.

**Policy S-8.4: Community Engagement.** Expand community engagement with residents, businesses, school districts, and community and neighborhood organizations to develop and expand partnerships to prevent crime, build public trust, and proactively address public safety issues.

**Policy S-8.5: Coordinate Enforcement Tools.** Support streamlining the enforcement and adjudication processes to increase the effectiveness of public safety programs.

**Policy S-8.6: State of the Art Police Practices.** Promote use of technology to improve efficiency, productivity and ensure best practices in policing.

**Policy S-8.7: Agency Management.** Maintain the Police Services Department that continues to promote accountability, transparency and fairness, and is adaptable to a changing community.

**Policy S-8.8: Service Delivery.** Provide high levels of fair and equitable service and continue to promote the use of non-sworn public safety personnel to maximize the efficiency of sworn police personnel.

**Policy S-8.9: Code Enforcement.** Use of code enforcement personnel to identify public safety hazards and encourage businesses and residents to assist in reducing community risks such as structural hazards, hazardous material, property maintenance, waste, and environmental hazards.

**Goal S-9: Living and working environment safe from crime.**

**Policy S-9.1: Resource Allocation.** Enhance the Police Services Department's crime-fighting strategies by strengthening the distinct resources needed to address traffic safety, transport of hazardous materials, quality of life and code enforcement, and community-based intervention and diversion programs.

**Policy S-9.2: Data Tools and Information Systems.** Support an information technology infrastructure to assist in reducing and preventing crime, and encourage the use of technology to provide access to accurate data and quality information.

**Policy S-9.3: Benchmarks for Public Safety.** Keep crime rates, service response times, and property loss rates at the lowest levels possible, and keep crime clearance rates and property recovery at the highest levels.

**Policy S-9.4: Youth-centered Strategies.** Increase coordination between schools and the City to identify and develop effective approaches to juvenile crime concerns and trends affecting the community's youth. Employ proactive and preventive strategies including support of school-based systems such as school attendance review boards, Family and Youth Intervention Program Strategies.

**Policy S-9.5: Regional Cooperation and Network.** Integrate regional approaches to reduce crime in the city including intergovernmental relations with neighboring police agencies and the Los Angeles County Sheriff's Department serving unincorporated and surrounding areas.

**Policy S-9.6: Crime Prevention in Project Design.** Incorporate consideration of public safety in the review of new developments such as site planning, lighting, and active transportation, including the implementation of Crime Prevention through Environmental Design principles in the design of private development projects and public facilities.

**Policy S-9.7: Programming.** Promote youth civic engagement, cultural diversity, and drug awareness programs.

#### *Land Use Element*

**Goal LU-10: Equitable access to and distribution of public facilities.**

**Policy LU-10.1: Joint Use of Land.** Pursue opportunities for the joint use of land devoted to community facilities and services. Such joint use may include combined school and recreation sites, and passive open space uses beneath power transmission rights-of-way and within channels or river floodways.

**Policy LU-10.2: Locations.** Develop public facilities at locations where they most efficiently serve the community and are compatible with current and future land uses.

**Policy LU-10.3: Community Involvement.** Encourage community involvement to assess the needs of City residents to determine priorities for the rehabilitation or new construction of public facilities.

**Policy LU-10.4: Available Land for Public Uses.** Protect those lands needed for public and quasi-public services which benefit the City as a whole.

#### *Circulation Element*

**Goal C-6: Street designs that accommodate transportation modes and users of all abilities.**

**Policy C-6.6: Safe Routes to School:** Prioritize safety improvements to intersections, sidewalks, and crosswalks around schools and consult with schools to identify safe and efficient drop off and pick up routes around school sites.

#### *Open Space and Conservation Element*

**GOAL COS-1: A vibrant park system that meets evolving community needs.**

**Policy OSC-1.1: Parkland Acreage and Access.** Strive to maintain a parkland to population ratio of at least 4.0 acres per 1,000 residents and where all residents live within a 10-minute walk to a park or other recreation facility.

**Policy COS-1.2: Use of Unique Property.** Utilize remnant properties along freeways, utility easements, or other corridors for use as recreational amenities or innovative urban open spaces.

**Policy COS-1.3: Recreational Partnerships.** Promote private/public partnerships in the development of open space and recreational facilities in both private and public projects.

**Policy COS-1.4: New Parkland.** Require that new multi-unit residential development

incorporate common and private open space facilities for its residents.

**Policy COS-1.5: New Park.** Pursue developing a small urban park north of Los Nietos Road to provide a recreational amenity for this disadvantaged community.

**Policy COS-1.6: Maintenance.** Ensure that the parks and recreation system is operated, maintained, and renovated to achieve user safety and security, sustainability elements, and user satisfaction.

**Policy COS-1.7: Joint-Use Facilities.** Promote joint use of school district properties to expand parkland facilities.

**Policy COS-1.8: Facility Assessments.** Evaluate and report periodically on the physical conditions and the quality of the City's recreational and community services and facilities.

**Policy COS-1.9: Park Improvements.** Ensure park revitalization and improvements are designed to meet the evolving needs of the community over time.

**Policy COS-1.10: Funding.** Seek and leverage grant programs and other available funding sources in the planning, development, maintenance, and acquisition of parkland and open spaces.

**Policy COS-1.11: Industrial and Business Outdoor Space.** Encourage businesses to provide outdoor workspace and employee gathering spaces in the work environment that considers technology needs and weather functionality.

**Policy COS-1.12: New Community/Event Center.** Pursue acquiring land to develop a new community/event center.

**Goal COS-2: Diversity of community services and programming.**

**Policy COS-2.1: Custom Programming.** Assess the educational, cultural, health and wellness, and social needs of the community on a regular basis, and design recreational and social service programs that promote and support the wellbeing and healthy development of all community members.

**Policy COS-2.2: Special Events and Activities.** Operate and expand citywide special events and activities that are popular with the community.

**Policy COS-2.3: Community Relationships.** Provide recreational and social services in a professional, courteous, and ethical manner to strengthen strong relationships between the City and community.

**Policy COS-2.4: Volunteerism.** Foster public volunteerism to assist in staffing community programs and events, particularly targeting teenagers, young adults, and seniors.

**Policy COS-2.5: Health and Wellness.** Design recreational and social service programming and services that consist of health and wellness programs—and specifically those that support healthy physical activities.

**Policy COS-2.6: Low-Income Residents.** Design recreational and social service programming and services that target low-income residents living in disadvantaged communities.

**Policy COS-2.7: Library Services.** Design library services and programming to address changing demographics and technology.

**Policy COS-2.8: Community Gardens.** Expand community gardens programs to ensure all who wish to participate can—and in convenient locations.

**Policy COS-2.9: Collaboration.** Collaborate with non-profit groups and community-based services providers and organizations to strengthen social services that meet community needs.

**Policy COS-2.10: Community Facilities.** Maintain the quality of established community centers and facilities.

#### 4.4.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the GPTZCU could result in a significant impact if it would:

- A. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - i) Fire protection;
  - ii) Police protection;
  - iii) Schools;
  - iv) Parks; and
  - v) Other public facilities.
- B. Cause substantial adverse cumulative impacts with respect to public services.

#### 4.4.4 – IMPACTS AND MITIGATION MEASURES

##### New or Altered Government Services

***Impact PUB-1 – Would the GPTZCU result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

##### I. Fire Protection

##### Analysis of Impacts

###### City-wide

By 2040, development within the Planning Area is estimated to result in increases of approximately 4,572 dwelling units, 364,000 square feet of office space, 383,500 square feet of industrial space, and a reduction of 80,000 square feet of commercial space. An estimated increase of approximately 13,890 residents and 4,788 jobs is also projected by the 2040 horizon year. As the City grows, so will its need for fire protection services.

The Santa Fe Springs Fire-Rescue Department has four fire stations serving the City with 19,100 residents (as of 2020) and nine square miles. As outlined in Exhibit 4.15-2, over 90 percent of the City is within a two-mile drive to one or more of these City fire stations. Assuming an average speed of 35 miles per hour, almost the entire City is within a 4-minute response time

from City fire stations. The nation-wide Insurance Services Office (ISO) provides communities with Public Protection Classification (PPC) ratings of urban and suburban fire department protection. The ratings are on a scale of 1 to 10 (with 1 being the best) based on the capabilities of the fire department's services and facilities (e.g., dispatch, water supply, fire suppression equipment, etc.). The City currently has a PPC rating of 2 which is achieved by only two percent of the more than 48,000 fire departments in the country that participate in ISO. At present, all of the City's fire stations are at least 50 years old but are fully staffed and equipped for urban fire service. The City has no plans at this time to construct new fire stations but is planning on refurbishing/rehabilitating its existing fire stations as necessary to achieve the highest level of urban fire protection for its residents and businesses. The City places conditions of approval on new development requiring proper access and fire protection. It does not have an established impact fee for fire protection but the City is currently studying the potential financial impact of development on various city services, including fire protection.

#### Key Opportunity Sites

According to Exhibit 4.15-2, the four key opportunity sites are all within two miles of a City fire station; therefore, they are considered to be adequately served by the City's Fire-Rescue Department. On several recent developments, the City has required a fiscal impact study to determine the impact of the new development on City services.

#### General Plan Update

The Safety Element of the GPTZCU includes goals and policies intended to provide an adequate number of trained and certified emergency and medical technicians to address future increased medical demands due to an increase in residential density and adequate staffing of fire response personnel based upon changing conditions, density, and development type.

Goal S-7 of the Safety Element and its policies address fire protection services. Policy S-7.1 states the City wishes to maintain adequate fire service, response times, etc., while Policy S-7.2 indicates the City will be modernizing their fire stations in the future. Policy S-7.8 indicates the City wishes to achieve the highest protection rating for urban fire departments. Finally, Policies S-7.3 through -7.7 outline various ways the City will coordinate with other agencies and utilize the most appropriate technologies and procedures to protect its citizens and businesses from fire.

Based on the number and location of fire stations within the Planning Area, it is expected that response times would remain within the national standard of five minutes or less for fires and basic life support, and eight minutes or less for advanced life support even with incremental increases in demand for services. For these reasons, the construction or expansion of existing fire facilities would not be required as a result of adoption of the proposed GPTZCU.

Therefore, the proposed GPTZCU would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

## II. Police Protection

### Analysis of Impacts

#### City-wide

By 2040, development within the Planning Area is estimated to result in increases of approximately 4,572 dwelling units, 364,000 square feet of office space, 383,500 square feet of industrial space, and a reduction of 80,000 square feet of commercial space. An estimated increase of approximately 13,890 residents and 4,788 jobs is also projected by the 2040 horizon year. As the City grows, so will its need for police services.

The City contracts with the Whittier Police Department for law enforcement services. In addition, the Los Angeles County Sheriff's Department (LACSD) provides police service to the unincorporated communities within the City's Sphere of Influence. LACFD Station 25 serves the community of Los Nietos, and LACFD Station 96 serves the community of West Whittier. The City places conditions of approval on new development requiring proper access and fire protection. It does not have an established impact fee for police protection but the City is currently studying the potential financial impact of development on various city services, including police protection. As growth occurs in the City, there will be an incremental need for additional police services.

#### Key Opportunity Sites

According to Exhibit 4.15-1, the four key opportunity sites are beyond two miles of the City's police station, however, the City is patrolled by sworn personnel (Whittier Police Department and City Public Safety Officers), so these sites are considered to be adequately served at present by the City's Police Department. For several recent developments, the City has required a fiscal impact study to determine the impact of the new development on City services.

#### General Plan Update

The Safety Element of the GPTZCU includes goals and policies intended to provide an adequate number of sworn and unsworn personnel to address future increased protection demands due to an increase in residential density and adequate staffing of patrol personnel based upon changing conditions, density, and development type.

Goals S-8 and S-9 of the Safety Element and their policies address police protection services. Goal S-8 addresses ways to improve and strengthen the City's police force. Policy S-8.1 states the City wants to provide its police with adequate resources. Policies S-8.2 through -8.4 indicates the City wishes to emphasize more community-based policing. Policies S-8.5 through -8.8 focus on utilizing the latest practices and technology to provide efficient service, while Policy S-8.9 indicates the City can use code enforcement to reduce community risks and cost of service.

Goal S-9 focuses more on keeping the community safe from crime. Policy S-9.1 also indicates the City wants to provide its police with adequate resources to also address traffic safety, transport of hazardous materials, quality of life and code enforcement, and community-based intervention and diversion programs. Policy S-9.2 indicates the City will use technology to better track, anticipate, and prevent criminal activities, while Policy S-9.3 states the City will establish benchmarks for various crimes and strive to reduce crime rates as much as possible. Policies S-9.4 and S-9.7 indicate the City will strive to utilize more youth-centered strategies to reduce and prevent crime, working with the local school districts and supporting joint programs. Policy S-9.5



states the City will work with other law enforcement agencies as necessary, and Policy S-9.6 encourages Crime Prevention through Environmental Design (CPED) principles in the design of private development projects and public facilities.

At this time the City does not anticipate needing to expand existing or build new police facilities as a result of potential population and land use intensity increases from the proposed GPTZCU. As such, the proposed GPTZCU would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities. Impacts resulting from the proposed GPTZCU would be less than significant.

### Level of Significance Before Mitigation

Less than significant.

### Mitigation Measures

None required.

## III. Schools

### Analysis of Impacts

#### City-wide

Over the next 20 years, development within the Planning Area is estimated to result in an increase of approximately 4,572 dwelling units and 2,057 students<sup>1</sup>. As the City grows, so will its need for school facilities and services. While the proposed GPTZCU could increase the number of students in the Planning Area by 2040, it is possible some of this increase could be absorbed due to declining enrollments in the various serving districts, as shown in Table 4.15-4 (Historical Local School District Enrollments) (LACOE 2016, 2019).

**Table 4.15-4  
Historical Local School District Enrollments**

School District <sup>1</sup>	2015-16 ADA <sup>2</sup>	2018-19 ADA <sup>2</sup>	Difference
Little Lake City ESD	4,255	4,113	-142
Los Nietos ESD	1,658	1,505	-153
S. Whittier ESD	2,953	2,602	-351
Whittier UHSD	11,968	10,745	-1,223
<b>Total</b>	<b>20,834</b>	<b>18,965</b>	<b>-1,869</b> (-9%)

Source: Los Angeles County Office of Education, Financial Reports for 2015-16 and 2018-19

<sup>1</sup> ESD = Elementary School District, UHSD = Union High School District

<sup>2</sup> ADA = Average Daily Attendance which is similar to enrollment but calculated for financial purposes depending on actual attendance

Projects within the Planning Area would also be required to pay school fees to the various school districts serving City residents. Developer Impact Fees help finance the construction and/or reconstruction of school facilities needed to accommodate students coming from new development. Developer Impact Fees may be levied for both residential and commercial

<sup>1</sup> Table 3-2, General Plan Update: Comparison of 2020 and 2040, in Section 3, Project Description

construction, pursuant to Education Code Section 17620 and California Government Code Section 65995. As stated in California Government Code Section 65995, payment of school impact fees in accordance with California Government Code Section 65995 and/or Education Code Section 17620 is deemed to constitute full and complete mitigation for potential impacts to schools caused by development. For these reasons, impacts related to the need for new school facilities as a result of implementing the proposed GPTZCU would be less than significant.

#### Key Opportunity Sites

The four opportunity sites are proposing mixed-use commercial and residential uses and so will be expected to generate some number of additional students to the various serving school districts depending on location. These developments will pay applicable school impact fees per Education Code Section 17620 and California Government Code Section 65995. Therefore, development of these areas will have less than significant impacts related to schools with payment of established impact fees.

#### General Plan Update

The Land Use Element of the proposed GPTZCU contains Goal LU-10 which strives to maintain equitable access and distribution of public facilities (including schools). Policy LU-10.2 encourages development of public facilities in the most appropriate locations, while Policy LU-10.4 tries to protect land for needed public facilities. Policy LU-10.1 emphasizes the joint use of land for multiple uses, such as school sites for recreation purposes, and Policy LU-10.3 encourages public involvement to prioritize new or rehabilitated public facilities.

In addition, the Circulation Element Goal C-6, Policy C-6.6 indicates the City will prioritize street improvements that contribute to safe walking and bicycling routes to schools.

Although the City is not responsible for directly planning, funding, constructing, or operating schools, the cited General Plan goals and policies will assist local school districts in their efforts to continue providing high quality educational facilities and services to City students. With these goals and policies, potential impacts of the GPTZCU regarding schools will be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **IV. Parks**

##### **Analysis of Impacts**

##### City-wide

With a total population of 18,295 in 2020, Santa Fe Springs currently has 4.7 acres of parkland per 1,000 residents. If no additional parks were added prior to the 2040 planning horizon year for the new general plan., the City's parkland ratio would drop to 2.5 acres per thousand residents based on the 2040 estimated population of 32,185 residents (80.3 acres divided by 32,185 thousand residents).

Using the current parkland ratio (4.7 acres/1000 residents), by 2040, the additional 13,890 residents expected in the Planning Area would require an additional 65.3 acres of new parkland (13,890 residents divided by 1,000 = 13.89 thousand residents times 4.7 acres per thousand residents = 65.3 acres) to maintain the 4.7/1,000 ratio.

According to the Open Space and Conservation Element of the proposed GPTZCU, the City's General Plan Quimby Act parkland standard is at least 4.0 acres per 1,000 residents (Policy OSC-1.1). The City currently has 80.3 acres of parkland and the City's 2020 population is estimated to be 32,185 residents. If the City were to provide 4.0 acres per thousand population by 2040, the City would need at least 128.7 acres of parkland or an increase of 48.4 acres over its existing parkland (roughly a doubling of its current parkland). However, park and recreation planning best practices currently emphasize community participation rather than just acres of parks per thousand population. Parkland service and distribution can now be evaluated by determining how many of their residents live within a 10-minute walk, or one-half mile, of a park. Seventy-seven percent of City residents live within one-quarter mile, or a five-minute walk, of a City or county park, and 91 percent of City residents live within one-half mile, or a 10-minute walk, of a City or county park to allow for more community participation and better access to parks.

Small residential developments along the edges of the City's boundary, including those near Norwalk Boulevard, Slauson Avenue, Greenleaf Avenue, and Carmenita Road are also not within walking distance to a park. These areas represent less than 10 percent of the City's total population and are in areas designated as Disadvantaged Communities.

Residents within adjacent County unincorporated areas appear to have less access to parks, with only 7 percent of residents within a five-minute walk and 15 percent living within one-half mile. Nearly 80 percent of the County residents do not live within one-half mile from a park. West Whittier/Los Nietos and portions of South Whittier Sphere of Influence areas include limited walking access to parks. These areas are also designated as Disadvantaged Communities.

New housing developments under the proposed GPTZCU would be evaluated as part of the City's development review process and, depending on project-specific impacts, would require land dedication, facilities improvements/expansions at existing parks, financial contribution, or some combination thereof to help meet the City's standard of 4 acres per 1,000 population (see Policy OSC 1.1 under Section 4.4.2, above). In addition to Policy OSC 1.1, Policy OSC 1.4 (New Parkland) and Policy OSC 1.8 (Facility Assessments) will also help to assure that adequate parklands and facilities are provided to support new development. . Thus potential impact of the GPTZCU related to new development would be less than significant.

#### Key Opportunity Sites

The four opportunity sites are mainly bounded by non-residential uses, although most have at least some residential uses in the immediate vicinity. The Washington Boulevard./Norwalk Boulevard site has residential uses adjacent to the south and north across Washington Boulevard. The Metrolink site has a small area of residential uses to the south, and the MC&C site has residential uses to the west. Finally, the Koontz site has various residential uses to the south and west. These sites are planned to be developed with mixed-use commercial and residential uses or higher density residential uses. Development of these sites would generate an incremental need for parks and recreational services that can be addressed through the City's development review process. and compliance with Policy OSC 1.1.

### General Plan Update

Goal COS-1 of the Open Space and Conservation Element states the City wants a park system that meets the changing needs of its community. Policy COS-1.1 states the City-wide parkland goal is 4.0 acres per thousand residents and Policy COS-1.6 addresses maintenance of park facilities. Policy COS-1.4 requires new multi-family development to provide onsite recreational improvements, while Policy COS-1.5 recommends a new park north of Los Nietos Road to serve that Disadvantaged Community. Policy COS-1.7 recommends joint use of school properties. Policy COS-1.3 recommends private/public partnerships to develop new parks, Policy COS-1.10 addresses alternative funding for parks, and Policy COS-1.2 suggests the use of remnant properties to build recreational facilities in the City.

With implementation of the outlined goals and policies, the proposed GPTZCU will have less than significant impacts related to parks and recreational programs.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

## **V. Other Public Facilities**

### **Analysis of Impacts**

#### City-wide

The City operates one library facility and the William C. Gordon Learning Center, located at the Gus Velasco Neighborhood Center on Pioneer Boulevard. The Santa Fe Springs Public Library, established in 1961, offers a wide range of programs for children, teens, adults, and seniors. Both the library and learning center offer internet access and provide free Wi-Fi.

The residents, employees, and customers of the Planning Area may incrementally increase the use of the City's library services but the increase is not expected to be significant relative to citywide demand due to societal changes in the demand and type of library services needed by the public and the continued expansion of personal information services from the internet. In addition, the prevalence of new technology related to literacy has eased the direct demand on these facilities. It is assumed that the City and responsible parties will assess growth in demand for library services as the City grows and the growth potential from the proposed GPTZCU would not be such that demand for these services would require the provision of new or physically altered facilities. Thus, it is anticipated that existing library services would accommodate any incremental increase in demand due to implementation of the proposed GPTZCU. As such, impacts to other public facilities in the area would be less than significant.

#### Key Opportunity Sites

Development of the four key opportunity sites would incrementally increase the need for other public facilities over the time horizon of the GPTZCU (2040). Specific increases in demand from individual projects will be evaluated at the time of application based on the size and type of development proposed. On several recent developments, the City has required a fiscal impact study to determine the impact of the new development on City services.

### General Plan Update

As part of Goal COS-1 in the Open Space and Conservation Element of the GPTZCU, Policy COS-1.11 indicates the City desires to acquire land for a new community events center. In addition, Goal COS-2 encourages a diversity of community services and is supported by Policy COS-2.1 (custom programming), Policy COS-2.2 (host special events), Policy COS-2.3 (foster community support), and Policy COS-2.6 (outreach to low income residents). Finally, Policy COS-2.7 states the City will Design library services and programming to address changing demographics and technology

The Land Use Element also has Goal LU-10 regarding the equitable access to and distribution of public facilities. Policy LU-10.2 encourages development of public facilities in the most appropriate locations, while Policy LU-10.4 tries to protect land for needed public facilities. Policy LU-10.1 emphasizes the joint use of land for multiple uses, and Policy LU-10.3 encourages public involvement to prioritize new or rehabilitated public facilities.

With implementation of these goals and policies, the proposed GPTZCU will have less than significant impacts regarding libraries and other public facilities.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Cumulative Impacts**

***Impact PUB-2 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to public services?***

### **Analysis of Impacts**

The proposed GPTZCU does not include specific development projects. Development projects in the Planning Area would generally increase the land use intensities in the service areas for the City's Fire Department and the City's Police Services Department, potentially causing incremental and cumulative increases in the number of calls for fire and/or police protection services. Development of residential projects within the boundaries of the various school districts serving City residents would lead to incremental increases in the number of students served by the district. Development of residential projects in the Planning Area would also lead to increases in the number of people who use the City's park and library facilities.

The increase in demand for public services in the City attributable to the GPTZCU would be incremental as growth occurs. On several recent developments, the City has required a fiscal impact study to determine the impact of the new development on City services. Over a period of 20 years, incremental increases in service costs could be offset by new Development Impact Fees. Projects constructed within the Planning Area over the life of the Plan would also be required to be developed in accordance with applicable fire codes and emergency access requirements. Compliance with these requirements (automatic sprinkler systems and fire alarms) would help prevent and/or ameliorate fire emergencies and would help facilitate more expedient emergency response (adequate fire flows, turning radii, width of emergency accesses). Similarly, the GPTZCU has been designed to improve public safety through design practices, enhanced lighting, and updated wayfinding signage. These design practices and

operational practices would lessen the demand for police protection services within the Planning Area.

Regarding school services, the contribution of new students from future projects within the Planning Area would increase demand for such services, including those associated with the key opportunity sites. The increases in student enrollment resulting from future projects that fall within the service areas of the school districts that serve the Planning Area can likely be accommodated within existing facilities, and it is not likely that any new facilities would be required, although payment of established school impact fees is considered full mitigation for potential impacts in this regard. Therefore, the proposed GPTZCU, in combination with other projects in the area, would not result in significant impacts to school facilities.

Potential cumulative impacts with respect to incremental increases in demand for parks would be offset, through the City's development review process, by parkland dedications, construction of new park facilities, monetary contributions, or a combination thereof.

Finally, cumulative impacts to library facilities would be less than significant through continued assessment of demands and improvements in technology that will ease direct demand on these facilities.

Note the conclusions regarding less than significant cumulative impacts on public services from implementation of the GPTZCU also apply to development of the key opportunity sites as well.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None required.

#### 4.4.5 – REFERENCES

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## 4.16 – Recreation

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This EIR chapter addresses recreation impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). This chapter will evaluate whether the GPTZCU will: increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. It will also determine whether the GPTZCU will include recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### 4.16.1 – ENVIRONMENTAL SETTING

As shown in Table 4.16-1 (Parks and Recreation Facilities), Santa Fe Springs manages 80.3 acres of parkland across 15 parks and recreational facilities, divided into parks, parkettes, and other recreational facilities.

**Table 4.16-1  
Parks and Recreation Facilities**

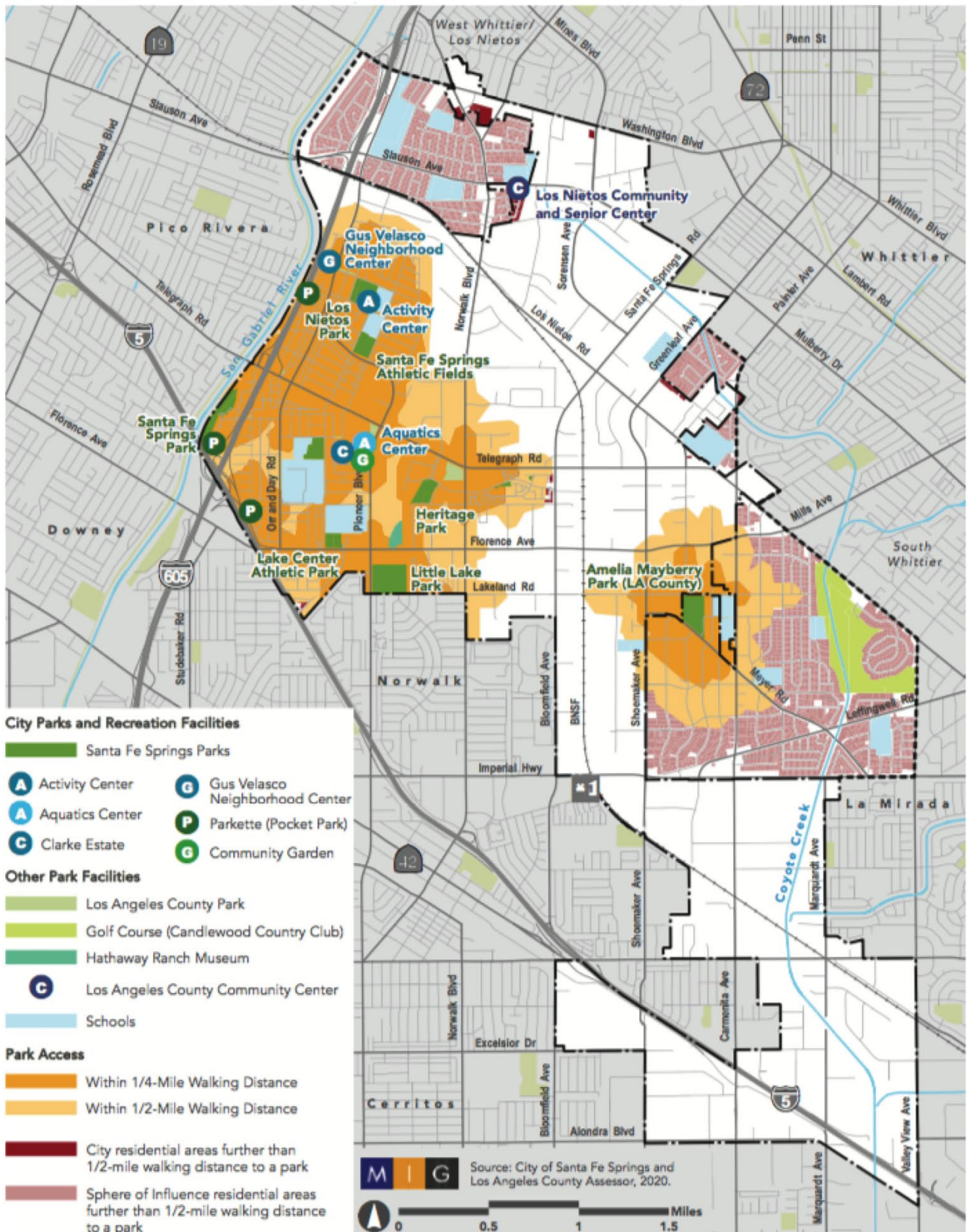
Facility	Type	Acres	Amenities
<b>Santa Fe Springs Recreation Facilities</b>			
<i>City Parks</i>			
Los Nietos Park	Park	11.0	Athletic fields (baseball/softball), basketball courts, children's play area (playgrounds), equipment for use, handball/racquetball, horseshoe pits, lighted facilities, picnic areas with bbq grills, restrooms, tennis courts, wading pool, child care center
Santa Fe Springs Park	Park	10.8	Athletic fields (baseball/softball), basketball courts, children's play area (playgrounds), equipment for use, handball/racquetball, horseshoe pits, picnic areas with bbq grills, available for rent, playing fields, restrooms, wading pool, parking lot
Santa Fe Springs Athletic Fields	Park	7.0	Athletic fields (baseball/softball), playing fields, playground
Little Lake Park	Park	19.8	Athletic fields (baseball/softball), basketball courts, equipment for use, formal picnic areas, playing fields, children's play area (playgrounds), horseshoe pits, lighted facilities, picnic areas with bbq grills, sheltered picnic area available for rent, wading pool, parking lot
Lake Center Athletic Park	Park	4.5	Baseball/softball fields, basketball courts, play fields, playgrounds, picnic areas
Lakeview Park	Park	6.7	Athletic fields, basketball courts, playground, handball/racquetball, picnic Areas with BBQ grills, restrooms, wading pool



#### 4.16 – Recreation

<i>Parkettes</i>			
Bradwell Avenue Parkette	Parkette	0.2	Playground, turf area, and benches
Davenrich Street Parkette	Parkette	0.1	Playground, turf area, and benches
Longworth Avenue Parkette	Parkette	0.2	Playground, turf area, and benches
<i>Other City Recreational Facilities</i>			
Clark Estate	Historical Site and Events Center	6.0	Historic building, rental facilities
Friendship Park	Passive Green Space	0.2	Monument and passive space
Heritage Park	Historical Site and Passive Green Space	7.5	Carriage Barn Museum, Tankhouse Windmill Building, Plant Conservatory, special event rentals, picnic areas with BBQ grills, restrooms, parking lot
Santa Fe Springs Aquatics Center	Aquatics Facility	2.3	Outdoor swimming pools, indoor swimming pool
Santa Fe Springs Community Garden	Community Garden	2.0	Gardening parcels for rent, equipment for use, picnic area
<b>Facility</b>	<b>Type</b>	<b>Acres</b>	<b>Amenities</b>
Soaring Dreams Plaza	Passive Green Space	2.0	Bronze statues and open lawn
<b>Santa Fe Springs (City) Total</b>		<b>80.3</b>	
<i>Other Recreation Facilities - Sphere of Influence (SOI)</i>			
Amelia Mayberry Park	Los Angeles County Park	14.4	Athletic fields (baseball/softball), basketball courts, senior center, barbecues, playgrounds, community gardens, fitness par courses, fitness zones, formal picnic areas, picnic tables, splash pads
Candlewood Country Club (Private)	Private Golf Course	83.0	Clubhouse and Golfcourse
<b>Other Recreation Facilities (SOI) Total</b>		<b>97.4</b>	

Source: City of Santa Fe Springs, 2020.



## Exhibit 4.16-1 Parks and Recreation Facilities

Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California



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Many agencies now measure parkland service and distribution by evaluating how many of their residents live within a 10-minute walk, or one-half mile, of a park. Seventy-seven percent of City residents live within one-quarter mile—or a five-minute walk—of a City or county park, and 91% of City residents live within one-half mile, or a 10-minute walk. Small residential developments along the edges of the City's boundary, including those near Norwalk Boulevard, Slauson Avenue, Greenleaf Avenue, and Carmenita Road, are not within walking distance to a park. These areas represent less than 10% of the City's total population and are in areas designated as Disadvantaged Communities. Residents within adjacent County unincorporated areas appear to enjoy less access to parks, with only 7% of residents within a five-minute walk and 15% living within one-half mile. Nearly 80% do not live within one-half mile from a park. West Whittier/Los Nietos and portions of South Whittier Sphere of Influence areas include limited walking access to parks. These areas are also designated as a Disadvantaged Communities.

### **Parks and Recreation Programs**

The City's Parks and Recreation Services Division offers a wide range of park and recreation programs for families and community members of all age groups, including community events, aquatics programs, and active, artistic and educational classes. City events and programs are announced in the Santa Fe Springs Activities, Class Schedule & Programs quarterly publication. The City hosts free and low-cost events year-round, which are promoted across multiple channels of communication. The Aquatics Center offers programs and activities during the summer. Programs include aquatic classes, water exercise programs, a junior lifeguard program, and a teen swim party. The Park and Recreation Services Division provides camp opportunities for children year-round. The City's Family Camp allows families to travel together and enjoy the Lake Arrowhead area. The City also hosts Spring and Summer Camps for youth locally.

The City offers active, artistic, and educational classes aimed to engage the community in new activities. There are classes for all age groups, from very young children to seniors. In its quarterly publication, the City organizes its programs into the following categories: City activities and events, family fun excursions, preschool and child care, city sports, teen programs, youth fitness, fitness and enrichment, the Aquatic Center, family and human services, and older adults 50+. Examples of events and activities typically offered in the City are listed below- however, this list is not comprehensive:

**City Activities and Events.** Annual Pow Wow, Blazing Tees Charity Golf Tournament, Pumpkin Carving and Haunted House, and Fiestas Patrias and Art Fest

- **Family Fun Excursions.** Los Angeles County Fair, End-of-Summer Concert, First Friday, Food and Films from Around the World, Creepy in the Park after Dark, STEAM Storytime and Lego Workshops
- **Preschool and Child Care.** Preschool Storytime at the Library and Bilingual Storytime
- **City Sports.** Adult Softball, Youth Soccer and Nerf Football Clinic
- **Teen Programs.** Family Fajitas, Parent Night and Open House, Rocktober and Halloween
- **Youth Fitness.** Boxing and Gymnastics
- **Fitness and Enrichment.** Beauty Makeup & the Basics, Boot Camp, Piano, Country Line Dancing and Yoga



- **The Aquatic Center.** Adult Lap Swimming and Water Exercise
- **Family and Human Services.** Case Management, Covered California, Legal Services, Gus' Kitchen, The Whole Child, Notary Services and Water Discount Program
- **Older Adults 50+.** Masquerade Dance, Disco Dance, Scare Dare Game Show, Latin Dance Cardio, Movin' N' Groovin', Yoga, Older Adult Painting, Bingo! and Café y Charlas

In response to the 2020 COVID-19 pandemic, the City initiated new programs to provide indoor activities. Parks and recreation services staff rolled out the "Rec N Roll Patrol" program to deliver "Safe at Home" recreation kits and outdoor chalked art areas to City residents.

The City's Parks and Recreation Division oversees three committees: Parks and Recreation Advisory Committee, Sister City Committee, and Youth Leadership Committee, with all members being City residents. The Parks and Recreation Advisory Committee (PRAC), with 25 members appointed by the City Council, serves as an advisory body for programs, events and services run by the Parks and Recreation Services Division. The PRAC also makes formal recommendations to the City and Council around City policy and projects.

The Sister City Committee provides summer exchanges with Santa Fe Springs' Sister City of Tirschenreuth, Germany for youth ages 15 to 18. Youth ages 15 to 18 who attend Santa Fe High School, Pioneer High School, or St. Paul High School and maintain a grade point average of 2.5 or higher are eligible to join the "Santa Fe Springs Young Ambassadors Association," which meets once a month and plans and conducts fundraisers to earn money for their trip to Germany. The trip to Germany takes place every other year on odd years.

The Youth Leadership Committee (YLC) aims to foster greater involvement in the community and municipal government among youth. The YLC provides guidance on youth-related programs and services in Santa Fe Springs. The YLC has 20 members appointed by the City Council.

#### 4.16.2 – REGULATORY FRAMEWORK

##### State

**Quimby Act (1975).** The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland.

**State Public Park Preservation Act (California Public Resource Code Section 5400 – 5409).** The State Public Park Preservation Act is the primary instrument for protecting and preserving parkland in California. Under the act cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This ensures a no net loss of parkland and facilities.

##### Local

##### 2021 City General Plan Update

The Open Space and Conservation Element of the proposed GPTZCU contains the following goal and policies relative to parks and recreational programming:

**GOAL COS-1: A vibrant park system that meets evolving community needs.**

**Policy COS-1.1: Parkland Acreage and Access.** Strive to maintain a parkland to population ratio of at least 4.0 acres per 1,000 residents and where all residents live within a 10-minute walk to a park or other recreation facility.

**Policy COS-1.2: Use of Unique Property.** Utilize remnant properties along freeways, utility easements, or other corridors for use as recreational amenities or innovative urban open spaces.

**Policy COS-1.3: Recreational Partnerships.** Promote private/public partnerships in the development of open space and recreational facilities in both private and public projects.

**Policy COS-1.4: New Parkland.** Require that new multi-unit residential development incorporate common and private open space facilities for its residents.

**Policy COS-1.5: New Park.** Pursue developing a small urban park north of Los Nietos Road to provide a recreational amenity for this disadvantaged community.

**Policy COS-1.6: Maintenance.** Ensure that the parks and recreation system is operated, maintained, and renovated to achieve user safety and security, sustainability elements, and user satisfaction.

**Policy COS-1.7: Joint-Use Facilities.** Promote joint use of school district properties to expand parkland facilities.

**Policy COS-1.8: Facility Assessments.** Evaluate and report periodically on the physical conditions and the quality of the City's recreational and community services and facilities.

**Policy COS-1.9: Park Improvements.** Ensure park revitalization and improvements are designed to meet the evolving needs of the community over time.

**Policy COS-1.10: Funding.** Seek and leverage grant programs and other available funding sources in the planning, development, maintenance, and acquisition of parkland and open spaces.

**Policy COS-1.11: Industrial and Business Outdoor Space.** Encourage businesses to provide outdoor workspace and employee gathering spaces in the work environment that considers technology needs and weather functionality.

**Policy COS-1.12: New Community/Event Center.** Pursue acquiring land to develop a new community/event center.

**Local School Districts.** The City maintains agreements with local school districts for certain recreation uses and facilities.. This arrangement expands the supply of specialized park space and benefits local youth. The City is committed to the joint agreement involving maintenance, scheduling, safety and liability. The Planning Area is served by five elementary school districts and two high school districts.

### 4.16.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the GPTZCU could result in a significant impact if it would:

- A. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- B. Include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment.
- C. Cause substantial adverse cumulative impacts with respect to recreation.

#### 4.16.4 – IMPACTS AND MITIGATION MEASURES

##### Recreational Facilities

***Impact REC-1 – Would the GPTZCU increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

***Impact REC-2 - Would the GPTZCU include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?***

##### City-wide

By 2040, development within the Planning Area is estimated to result in an increase of approximately 4,572 dwelling units and 13,890 residents. As the City grows, so will its need for existing and new parks and recreational programs. The City currently manages 80.3 acres of parkland across 15 parks and recreational facilities, divided into parks, parkettes, and other recreational facilities.

The National Park and Recreation Association (NRPA) recommends that a city with a population under 20,000 should provide between 5.2 to 20.8 acres of parkland per 1,000 residents. In Southern California, a more typical figure is three to five acres of park per 1,000 residents. With a total population of 18,295 in 2020, Santa Fe Springs currently has 4.7 acres of parkland per 1,000 residents. If no additional parks were added during that period, the City's parkland ratio would drop to 2.5 acres per thousand residents based on the 2040 estimated population of 32,185 residents (80.3 acres divided by 32.185 thousand residents).

If no new parks were added during this time, it is likely that increased use of existing parks would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Using the current parkland ratio (4.7 acres/1000 residents), by 2040 the additional 13,890 residents expected in the Planning Area would require an additional 65.3 acres of new parkland (13,890 residents divided by 1,000 = 13.89 thousand residents times 4.7 acres per thousand residents = 65.3 acres).

According to the Open Space and Conservation Element of the proposed GPTZCU, the City's General Plan Quimby Act parkland standard is at least 4.0 acres per 1,000 residents (Policy COS-1.1). The City currently has 80.3 acres of parkland and the City's population is estimated to be 32,185 residents (2020). If the City were to provide 4.0 acres per thousand population by 2040, the City would need at least 128.7 acres of parkland or an increase of 48.4 acres over its existing parkland (roughly a doubling of its current parkland). However, park and recreation planning best practices currently emphasize community participation rather than just acres of parks per thousand population. Parkland service and distribution can now be evaluated by

determining how many residents live within a 10-minute walk, or one-half mile, of a park. Seventy-seven percent of City residents live within one-quarter mile, or a five-minute walk, of a City or county park, and 91 percent of City residents live within one-half mile, or a 10-minute walk, of a City or county park to allow for more community participation and better access to parks.

Small residential developments along the edges of the City's boundary, including those near Norwalk Boulevard, Slauson Avenue, Greenleaf Avenue, and Carmenita Road are also not within walking distance to a park. These areas represent less than 10 percent of the City's total population and are in areas designated as Disadvantaged Communities.

Residents within adjacent County unincorporated areas also appear to have less access to parks, with only 7 percent of residents within a five-minute walk and 15 percent living within one-half mile. Nearly 80 percent of residents do not live within one-half mile from a park. West Whittier/Los Nietos and portions of South Whittier Sphere of Influence areas include limited walking access to parks. These areas are also designated as Disadvantaged Communities.

New housing developments under the proposed GPTZCU would be evaluated as part of the City's development review process and, depending on project-specific impacts, would require land dedication, facilities improvements/expansions at existing parks, financial contribution, or some combination thereof to help meet the City's standard of 4 acres per 1,000 population (see Policy OSC 1.1 under Section 4.4.2, above). In addition to Policy OSC 1.1, Policy OSC 1.4 (New Parkland) and Policy OSC 1.8 (Facility Assessments) will also help to assure that adequate parklands and facilities are provided to support new development. Thus potential impact of the GPTZCU related to new development would be less than significant.

#### Key Opportunity Sites

The four opportunity sites are mainly bounded by non-residential uses, although most have at least some residential uses in the immediate vicinity. The Washington Boulevard/Norwalk Boulevard site has residential uses adjacent to the south and north across Washington Boulevard. The Metrolink site has a small area of residential uses to the south, and the MC&C site has residential uses to the west. Finally, the Koontz site has various residential uses to the south and west. These sites are planned to be developed with mixed-use commercial and residential uses or higher density residential uses. Development of these sites would generate an incremental need for parks and recreational services that can be addressed through the City's development review process and compliance with Policy OSC 1.1.

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Goal COS-1 of the Open Space and Conservation Element states the City wants a park system that meets the changing needs of its community. Policy COS-1.1 states the City-wide parkland goal is 4.0 acres per thousand residents and Policy COS-1.6 addresses maintenance of park facilities. Policy COS-1.4 requires new multi-family development to provide onsite recreational improvements, while Policy OSC-1.5 recommends a new park north of Los Nietos Road to serve that disadvantaged community. Policy COS-1.7 recommends joint use of school properties, Policy COS-1.3 recommends private/public partnerships to develop new parks, Policy COS-1.10 addresses alternative funding for parks, and Policy COS-1.2 suggests the use of remnant properties to build recreational facilities in the City.

With implementation of the outlined goals and policies, the proposed GPTZCU will have less than significant impacts related to the increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility



would occur or be accelerated. In addition, the GPTZCU itself would not include any recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None required.

**Cumulative Impacts**

***Impact REC-3 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to recreation?***

**Analysis of Impacts**

The proposed GPTZCU does not include specific development projects. However, the increase in demand for parks and recreational service in the Planning Area attributable to the GPTZCU would be incremental as growth occurs over a period of 20 years and would be offset through the development review process and compliance with Policy OSC 1.1.. It should be noted that this conclusion also applies to development of the four key opportunity sites. This condition would also occur in other surrounding jurisdictions as development occurs in the future. However, those jurisdictions, including the County for unincorporated areas, would likely have their own exactions for new development to support additional park facilities, so the proposed GPTZCU will not make a significant contribution to cumulatively considerable impacts regarding regional park facilities and services.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None required.

**4.16.5 – REFERENCES**

City of Santa Fe Springs. *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*. Prepared by MIG. August 2020.

National Recreation and Parks Association (NRPA), 2021. [website accessed June 2021]  
<https://www.nrpa.org/>

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## 4.17 – Transportation

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This EIR chapter addresses transportation and traffic impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are transportation and traffic impacts identified by the CEQA Guidelines: whether the GPTZCU will conflict with a program plan, ordinance or policy addressing the circulation system; will conflict with or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b) regarding vehicle miles traveled or VMT; will substantially increase hazards due to a geometric design feature or incompatible uses; or will result in inadequate emergency access.

### 4.17.1 – ENVIRONMENTAL SETTING

This section documents the baseline 2020 transportation system serving the City of Santa Fe Springs, including an inventory of the overall transportation environment for auto, transit, freight, and bicycle and pedestrian networks, and roadway operations analysis. The existing conditions data were compiled from information provided by the City of Santa Fe Springs, available plans and studies, field observations, and field data collection.

#### Existing Transportation System

Santa Fe Springs is located near the confluence of Interstate 5 (I-5) to the south and Interstate 605 (I-605) to the west, with close access to Whittier Boulevard (SR-72) to the north and Rosemead Boulevard (SR-19) to the west (Santa Fe Springs, 2020). Many of the major roadways within the City provide freight access to industrial areas. According to 2017 U. S. Census data, 62% of jobs in the City were in the construction, manufacturing, or wholesale trade industries. These industries tend to rely on freight, delivery, and other larger vehicles to conduct business. The industrial uses form the center core of the City, with residential neighborhoods, schools, and parks generally located along the perimeter. This section describes the planned street classification network as identified in the 1994 General Plan Circulation Element. Planned street classifications are illustrated in Exhibit 4.17-1 (Planned Street Classification).

#### Planned Street Classification

**Freeways.** I-605 runs along the northwestern border of Santa Fe Springs, extending from the cities of Westminster and Seal Beach in Orange County to the south to Baldwin Park in Los Angeles County to the north. Within the City, Telegraph Road, Slauson Avenue, and Washington Boulevard provide primary access to I-605. I-5, on the southwest City boundary, is a major interstate highway providing north-south connectivity to Los Angeles, Anaheim, and Irvine, and as far north as Washington state. Florence Avenue is the primary access roadway to I-5 and the I-605/I-5 interchange. Norwalk Boulevard, Carmenita Road, Valley View Avenue, Pioneer Boulevard, and Bloomfield Avenue also provide access for City residents to area freeways.

**Major Arterials.** Major Arterials are designed to move large volumes of traffic through the community. Most of the arterial roadways have four to six lanes, with a two-way left-turn lane. Telegraph Road has a raised median instead of a dedicated left-turn lane, with turns permitted at specific intersections and driveways. Traffic signals are the primary traffic control on arterials within the City. Major Arterials include:

#### 4.17 – Transportation

- Washington Boulevard
- Slauson Avenue
- Telegraph Road
- Norwalk Boulevard
- Orr and Day Road
- Pioneer Boulevard
- Santa Fe Springs Road--Bloomfield Avenue
- Carmenita Road
- Imperial Highway
- Rosecrans Avenue
- Alondra Boulevard
- Valley View Avenue

**Secondary Arterials.** Secondary roadway's primary function is to provide connectivity between commercial and industrial areas. These roadways are generally located in the eastern part of the City—south of Imperial Highway—and include portions of Leffingwell Road, Shoemaker Road, and Foster Road. These roadways are generally wider, providing mobility for freight vehicles, and are generally one to two lanes in each direction. Secondary Arterials include:

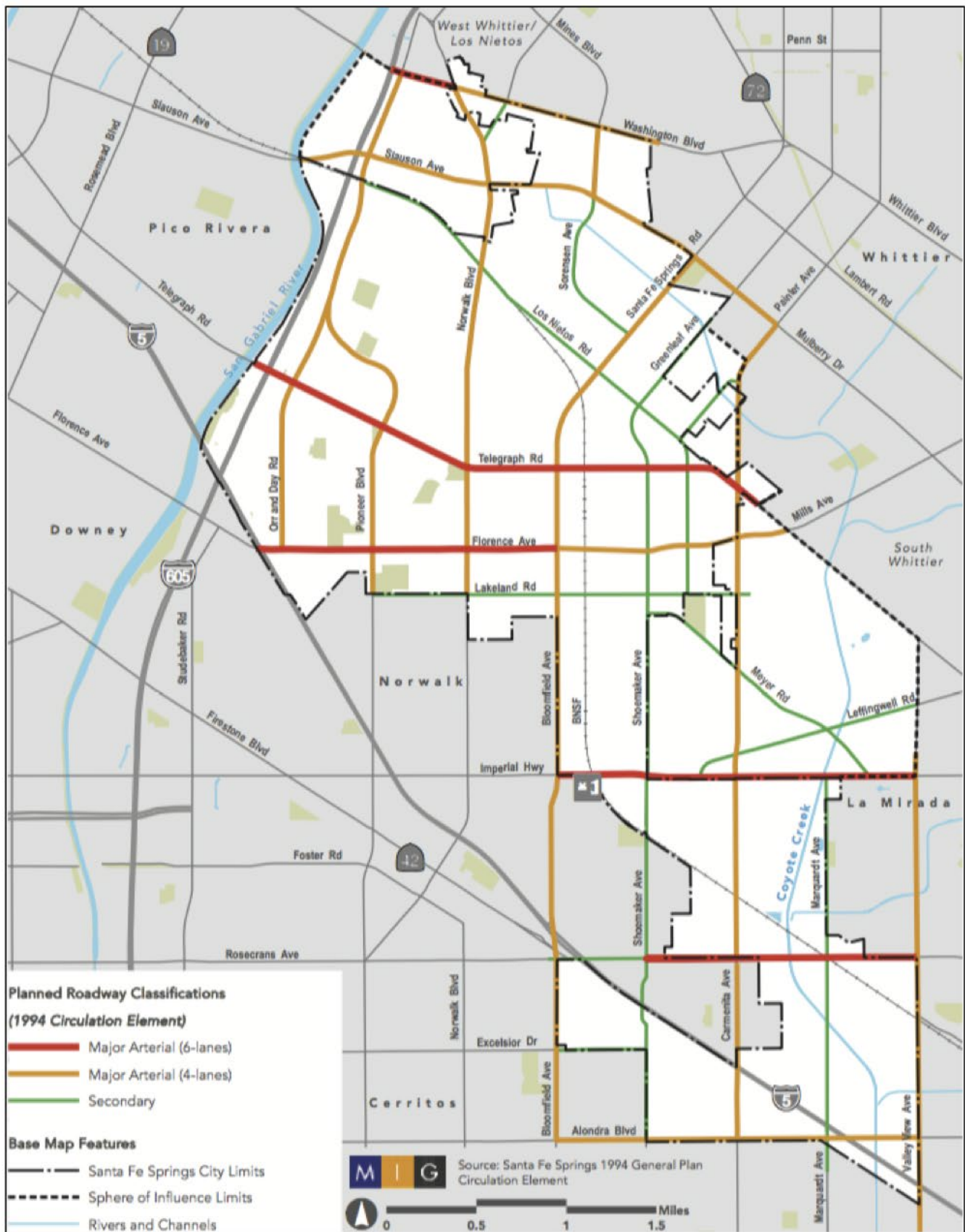
Sorenson Avenue

- Los Nietos Road
- Greenleaf Avenue
- Shoemaker Avenue
- Painter Avenue
- Meyer Road
- Leffingwell Road
- Foster Road
- Lakeland Road
- Marquardt Avenue

**Local Streets.** Local streets provide access to and from residential neighborhoods and generally provide one travel lane in each direction with on-street parking permitted on both sides of the street. These roadways are primarily located on the western and southeastern part of the City. Most local streets have a posted speed limit of 25 mph. There are also many local industrial streets that provide access within the City.

#### Roadway Improvements

**Interstate 5 Freeway Improvement Project.** The California Department of Transportation (Caltrans) is investing \$1.9 billion dollars to improve southern segments of I-5 (the Santa Ana freeway) between the Orange County line and I-605 (the San Gabriel River freeway). Improvements will enhance safety, add traffic lanes, encourage ridesharing through new high occupancy vehicles (HOV) lanes, decrease surface street traffic, and help improve air quality. Construction began in 2016 to improve the Valley View Avenue Interchange, which will add new HOV and mixed-flow lanes on I-5 between Artesia Boulevard and North Fork Creek. Three bridges will be reconstructed as part of the project, including one at Valley View Avenue, which will also incorporate a new railroad overpass. Construction is expected to be completed by late 2022.



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## Exhibit 4.17-1 Planned Street Classifications

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The Florence Avenue Widening Project, which widens Florence Avenue from Orr and Day Road to Pioneer Boulevard, will provide additional eastbound and westbound travel lanes to accommodate a total of three travel lanes in each direction. Sidewalk, curb ramp, and supportive transit infrastructure will also be improved. Construction is expected to be completed by 2021.

Projects completed as of 2020 include a fourth freeway lane on northbound I-5 from Alondra Boulevard to Orr and Day railroad overpass, Carmenita Road overcrossing expansion, Alondra Boulevard overcrossing expansion, and elements of the Imperial Highway/Pioneer Boulevard project, including HOV expansion on I-5 and Imperial Highway and Pioneer Boulevard under-crossings.

**Planned Roadway Improvements.** The vehicle overpass on Rosecrans Avenue at Marquardt Avenue will allow elevated crossing of the BNSF railway tracks. This intersection was identified by the California Public Utilities Commission as one of the most hazardous crossings in the State. Construction is expected to be complete by 2023 .

### **Public Transportation System**

The public transportation system in Santa Fe Springs provides non-auto options for commute, utility, and recreational travel, with connections to downtown Los Angeles, LAX, and other regional cities and destinations. This section describes the transit agencies serving Santa Fe Springs and the transit routes and services available to the community.

**Transit Agencies.** The City of Santa Fe Springs is served by a number of bus, commuter rail, and shuttle and paratransit services. The following agencies provide regional connectivity, providing an alternative to driving a personal vehicle:

- **Metrolink.** Metrolink is a commuter rail system that consists of 62 stations operating on 534 miles of rail network throughout Southern California, with key connections to most major cities. Metrolink operates seven different rail lines, with the Norwalk/ Santa Fe Springs Station serving two lines: 91/ Perris Valley Line and Orange County Line. Regular one-way fares range from \$3.50 for destinations within a short distance to \$16.75 for destinations within a longer distance. Discounts can be applied to seniors, disabled, students, and active military personnel.
- **Los Angeles County Metropolitan Transportation Authority (Metro).** Metro provides rail and bus service throughout Los Angeles County, with a number of express and regular bus routes serving Santa Fe Springs. Fare starts at \$1.75 (as of 2020), with daily, weekly, and monthly passes available, and a LIFE monthly low-income pass.
- **Norwalk Transit.** Norwalk Transit provides fixed-route and para-transit service in Santa Fe Springs, Norwalk, Artesia, Bellflower, Cerritos, La Mirada, La Habra, Whittier, and areas of unincorporated Los Angeles County. The agency serves nearly 6,300 passengers each weekday on the six transit routes. Fares start at \$1.25 (as of 2020) with discounts for students/youth and seniors.
- **Montebello Bus Lines.** Montebello Bus Lines provides bus and dial-a-ride services to residents of Montebello and neighboring cities, operating 24 hours a day, seven days a week. The agency operates the Washington Boulevard line with stops at Norwalk Boulevard and Broadway at the Santa Fe Springs northern city limits. Fares start at \$1.10.

### Fixed-Routes Bus Service

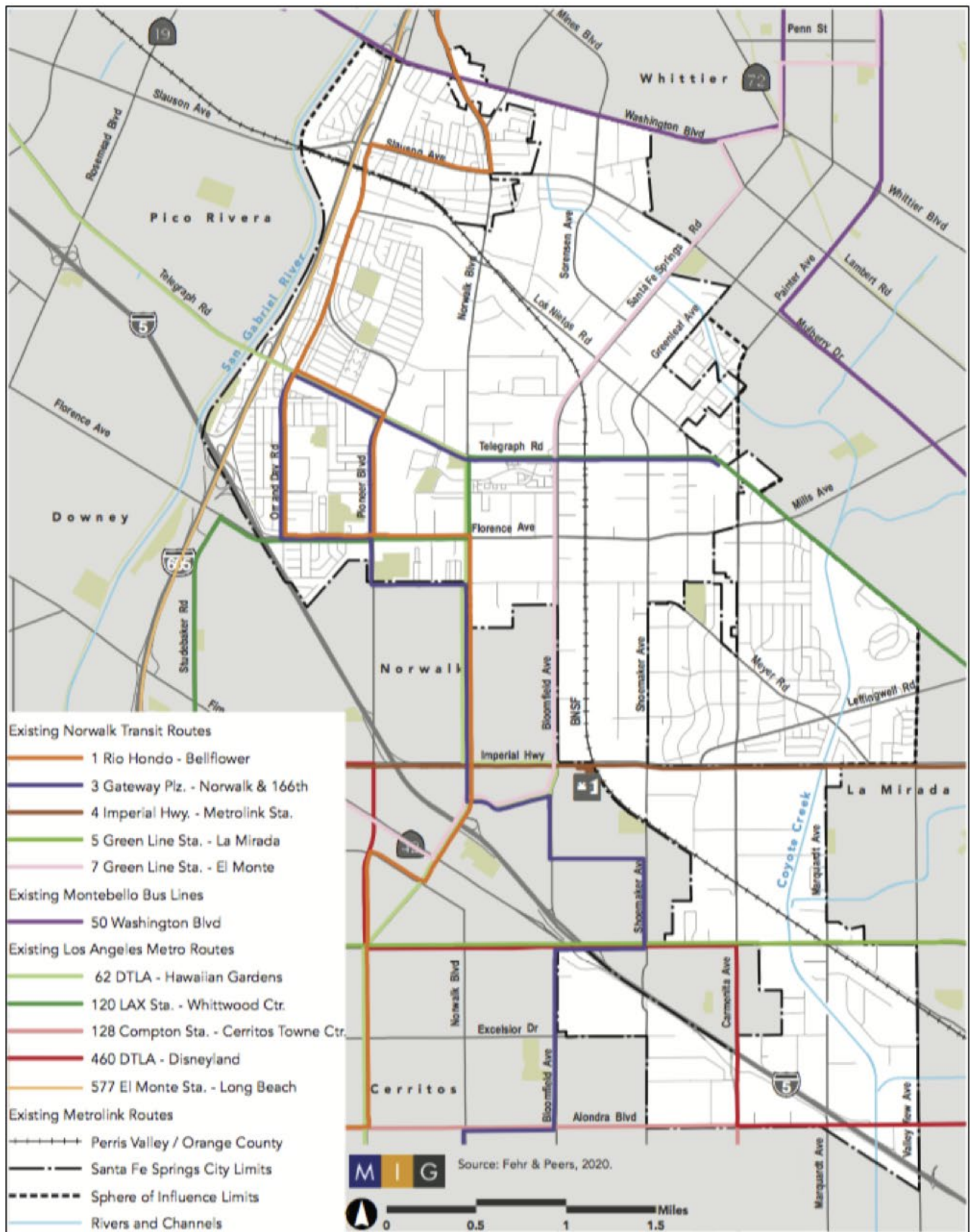
The City is served by the Metro, Foothill Transit, Montebello Bus Lines, and Norwalk Transit System transit agencies. Bus transit generally runs every 30 to 45 minutes during the peak periods, with certain routes such as Norwalk route 7 and Metro routes 62 and 460 running every 25 minutes or better. Generally, transit users prefer reliable wait times of less than 15 minutes when making trip choices. Table 4.17-1 outlines the routes serving Santa Fe Springs and peak transit frequency. Exhibit 4.17-2 (Existing Transit Service (2020)) shows route pathways through Santa Fe Springs and Exhibit 4.17-3 (Existing Bus Ridership by Stop and Route) illustrates daily ridership. As shown in Exhibit 4.17-3, Metro bus stops along Telegraph Road have the highest number of average daily boardings. The corridor serves multiple transit routes, including Norwalk Transit routes 1 and 3, and Metro routes 62 and 120. Additional transfer opportunities are located on Bloomfield Avenue and Telegraph Road, Norwalk Boulevard and Telegraph Road, and Pioneer Boulevard and Orr and Day Road, which have some of the highest ridership stops for Metro and highest daily ridership transit routes within the City. Outside of the Telegraph Road transit corridor, the Alondra Boulevard and Valley View Avenue intersection has a high number of average daily boardings, likely due to the multiple Metro routes serving the intersection.

**Table 4.17-1**  
**Transit Service in Santa Fe Springs**

Route	Origin	Destination	Peak Frequency
<b>Metrolink</b>			
Perris Valley Line	Downtown LA	Perris Valley	40 mins
<b>Norwalk Transit</b>			
Route 1	Rio Hondo College	Bellflower	30 mins
Route 3	Gateway Plaza	Norwalk and 166th	60 mins
Route 4	Imperial Highway	Metrolink Station	40 mins
Route 5	Green Line Station	La Mirada	45 mins
Route 7	Green Line Station	El Monte	25 mins
<b>Montebello Bus Lines</b>			
Route 50	Downtown LA	Whittier/La Mirada Center	65 mins
<b>LA Metro</b>			
Route 62	Downtown LA	Hawaiian Gardens	20 mins
Route 120	LAX Station	Whittwood Center	40 mins
Route 128	Compton Station	Cerritos Town Center	40 mins
Route 460	Downtown LA	Disneyland	25 mins
Route 577	El Monte Station	Long Beach	45 mins

Source: Metrolink, Norwalk Transit, LA Metro, 2020.





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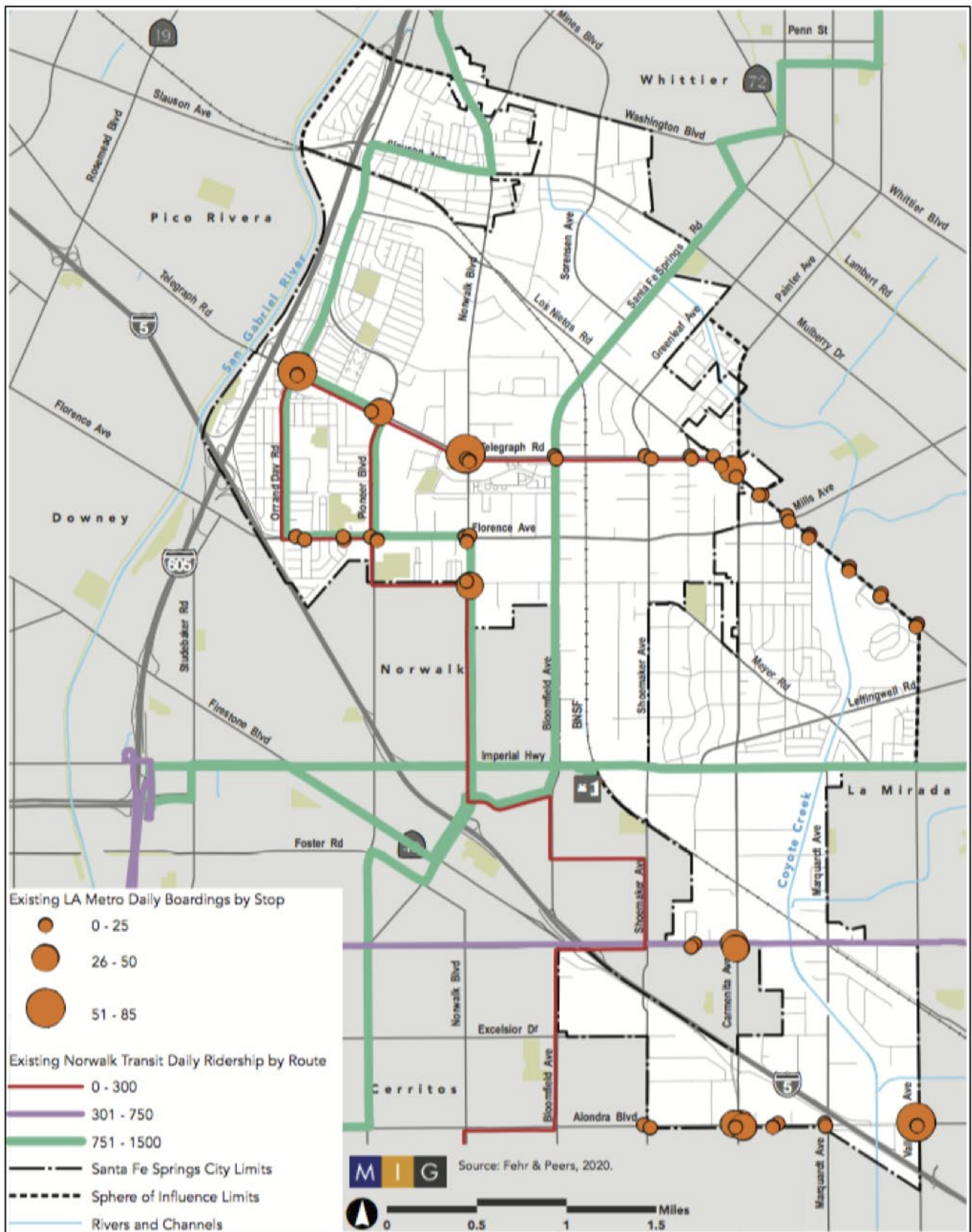
## Exhibit 4.17-2 Existing Transit Service (2020)

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**Exhibit 4.17-3 Existing Bus Ridership by Stop and Route**  
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## **Metrolink**

Metrolink's Norwalk/Santa Fe Springs station is located on Imperial Highway east of Bloomfield Avenue. The physical station is located within the City of Norwalk, with a pedestrian bridge crossing over the tracks to connect to a surface vehicle parking lot located in Santa Fe Springs. The station has 630 commuter parking spaces available for Metrolink riders at daily and monthly fees. Metrolink's fares are based on the total distance travelled determined by a passenger's origin and destination, with monthly passes and discounted rates for seniors, students/youth, and active military. Long- and short-term bicycle parking is available in bike lockers and racks for users to make the first/last mile to transit without a motor vehicle. The Norwalk Transit System service facilities are located adjacent to the station.

## **Shuttles and Paratransit**

Santa Fe Springs, as of 2020, provides shuttle service to transit-dependent residents for transportation to medical institutions and to deliver meals to residents. Transportation to medical and dental appointments is available to residents age 60 and older, and for persons with disabilities. The coverage area includes areas within Santa Fe Springs, and to Downey, Norwalk, Pico Rivera, and the Bellflower Kaiser medical facility during weekdays. Shuttle service is also provided to assist seniors, youth, and disabled groups with subsidized excursions to attend educational, recreational, or cultural events. Trips funded through this program are open to the general public.

## **Proposed Transit Services**

***Metro Eastside Corridor Phase 2.*** As of 2020, Metro is evaluating the Eastside Transit Corridor Phase 2, an extension of the Metro L Line (Gold) further east from its current terminus at Atlantic Station (Pomona Boulevard/Atlantic Boulevard) in East Los Angeles through the cities of Commerce, Montebello, Pico Rivera, Santa Fe Springs, and Whittier. The proposed line would travel south along Atlantic Boulevard underground from the current Metro L Line (Gold) terminus at Atlantic Boulevard Station to the Citadel Outlets in Commerce. The route would then proceed east along Washington Boulevard via aerial and/or at-grade (street level) configurations ending at Lambert Road in Whittier. The East Transit Corridor Phase 2 extension was originally anticipated to be complete by 2035, but Metro's Twenty-Eight by '28 Initiative identifies the Gold Line Eastside Extension to Santa Fe Springs and Whittier with a 2028 target completion date.

## **Freight**

Freight and delivery vehicles play a critical role in the local economy, with a large portion of employment in manufacturing, wholesale trade, and construction. A large portion of the central land area includes warehouses and industrial uses, with freight and deliveries using the roadways serving these areas.

***Trucks.*** The key arterials of Telegraph Road, Florence Avenue, Carmenita Road, Santa Fe Springs Road, Washington Boulevard, and Pioneer Boulevard provide freight access to and from I-5, I-605, Whittier Boulevard, and Rosemead Boulevard. According to the draft 2020 California Freight Mobility Plan, I-605 is among the highways carrying the highest truck volumes in the region, averaging more than 25,000 trucks per day in 2016. In Santa Fe Springs, arterial roadways have been designed to accommodate freight movement, with lane widths of 11 to 12 feet and intersections are designed with wide curb radii or deceleration lanes to accommodate turning trucks.

**Rail.** Both the BNSF Railway and Union Pacific railroads operate in Santa Fe Springs, with a Union Pacific rail yard located adjacent to Los Nietos Road and Union Pacific Distribution Services operating the Valla railport on Sorenson Avenue. Rail freight operates within long-established rail easements/rights-of-way that traverse the City, largely at at-grade crossings. Crossings are located primarily at arterial roadways. Exhibit 4.17-4 (Truck Weight Restrictions and Rail Yards) shows roadways and their respective weight restrictions, indicating where certain types of freight are permitted to travel. The at-grade crossings can be a source of congestion, restricting car and truck movement when long freight trains rumble through the City.

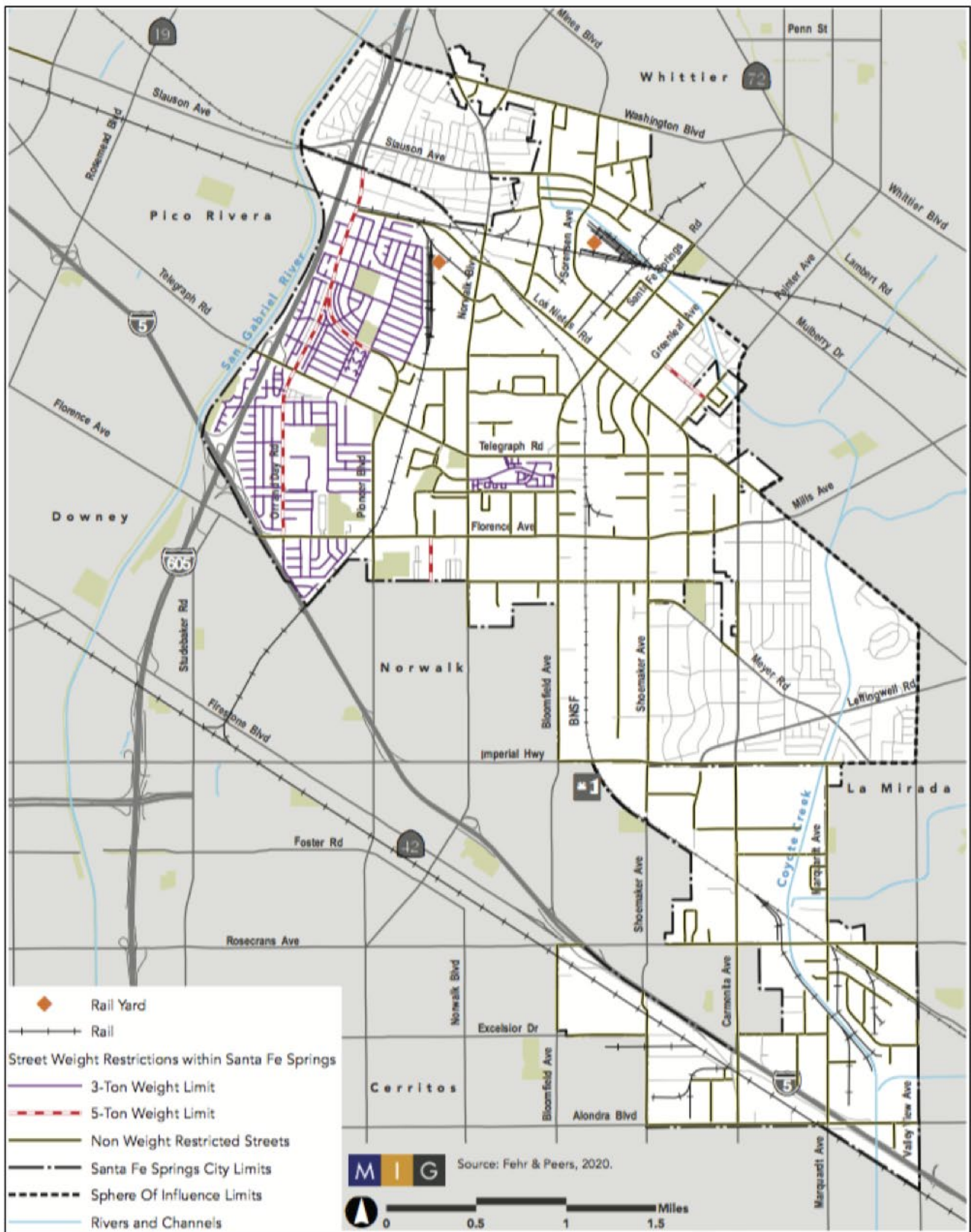
### **Bicycle and Pedestrian Facilities**

Santa Fe Springs has sidewalks and crosswalks on most streets. Bicycle movement is accommodated on a developing system of local bikeways that connect to regional facilities.

**Bicycles.** The City is served by several local Class I, II, and III routes, with connections to regional facilities such as the San Gabriel River Mid Trail, a Class I pathway that extends 12 miles between the Whittier Narrows Dam/Legg Lake Recreation Area to South Street in Cerritos and the Lakewood border along the San Gabriel River. The Coyote Creek Bikeway, located in the southeastern part of the City, is a 12-mile Class I paved pathway that runs between the cities of Long Beach and La Habra. This trail allows users to travel between cities outside of the roadway right-of-way for commute and recreational trips. Within Santa Fe Springs, Class II bike lanes can be used along Los Nietos Road, Santa Fe Springs Road, Bloomfield Avenue, Imperial Highway, and local roads in the southern portion of the City. The bike lanes generally are striped and located either curbside or adjacent to parking. Gaps exist on parts of Los Nietos Road and Imperial Highway, requiring users to share the roadway with vehicles or ride on the sidewalk if users are uncomfortable sharing roadway space. Other bike facilities include Class III lanes on roadways such as Santa Fe Springs Road, and Greenleaf Avenue that provide signage indicating that the roadway is to be shared with bicycles. Bike routes are also located in the residential areas on Orr and Day Road and Jersey Avenue. Bicycle facilities are shown in Exhibit 4.17-5, Existing Bicycle Facilities (2020).

**Pedestrians.** Pedestrian circulation and access are provided on sidewalks and trails. Sidewalks exist on most roadways, including in residential neighborhoods. However, some sidewalks are missing or only located on one side of the street within many of the industrial and residential areas, as shown in Exhibit 4.17-6 (Sidewalk Inventory (2020)). Crosswalks are primarily located at signalized intersections, while some are located at uncontrolled intersections. Pedestrian call buttons are present at most of the major signalized intersections. Given the long distance between intersections, mid-block crossings can be hazardous for pedestrians who elect not to walk farther to cross at a signalized intersection. While raised medians provide an opportunity for a two-stage crossing in some locations, these roadways are four to five lanes in width and vehicles may be travelling at high speeds, creating an uncomfortable environment for mid-block crossings.



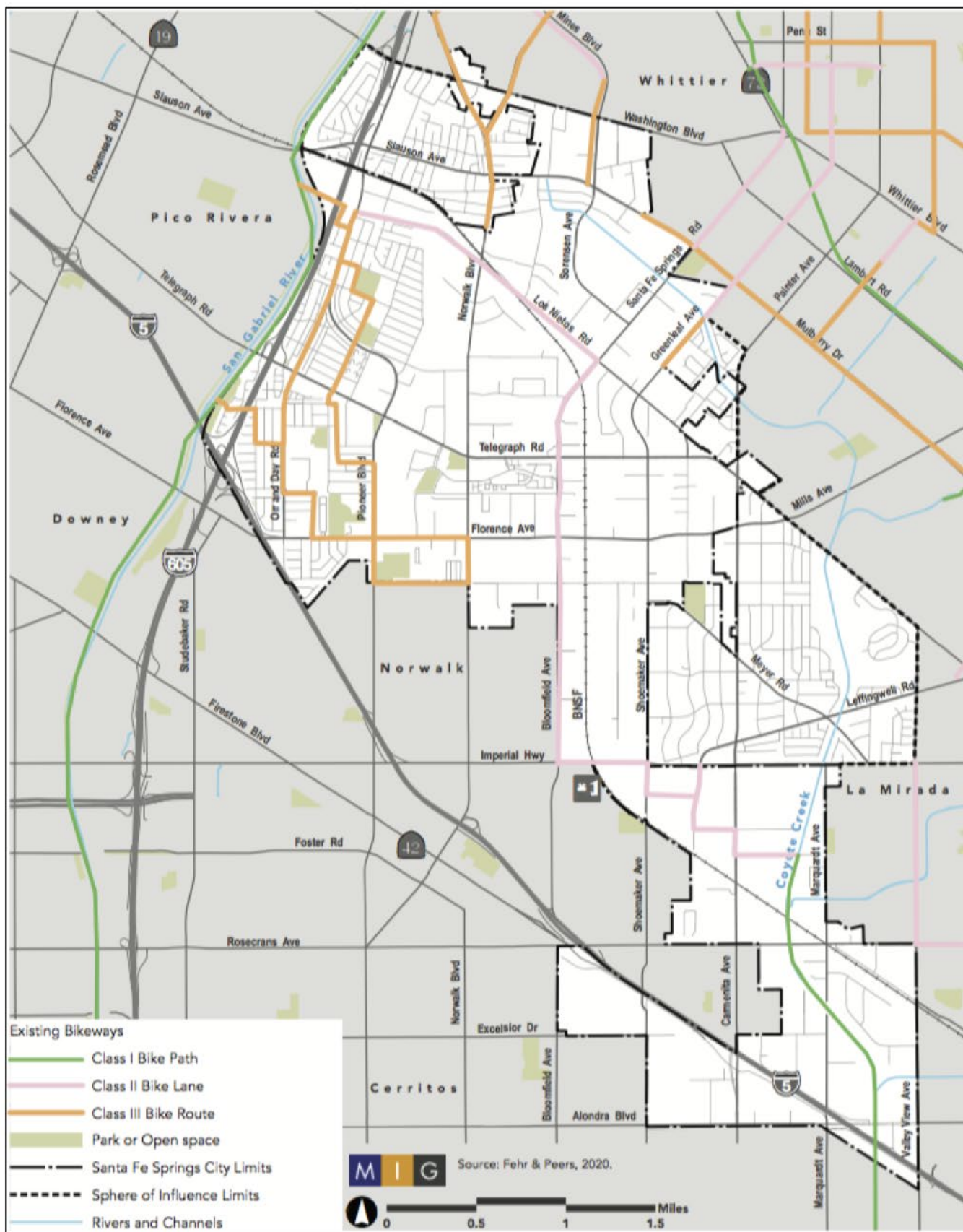


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**Exhibit 4.17-4 Truck Weight Restrictions and Rail Yards**  
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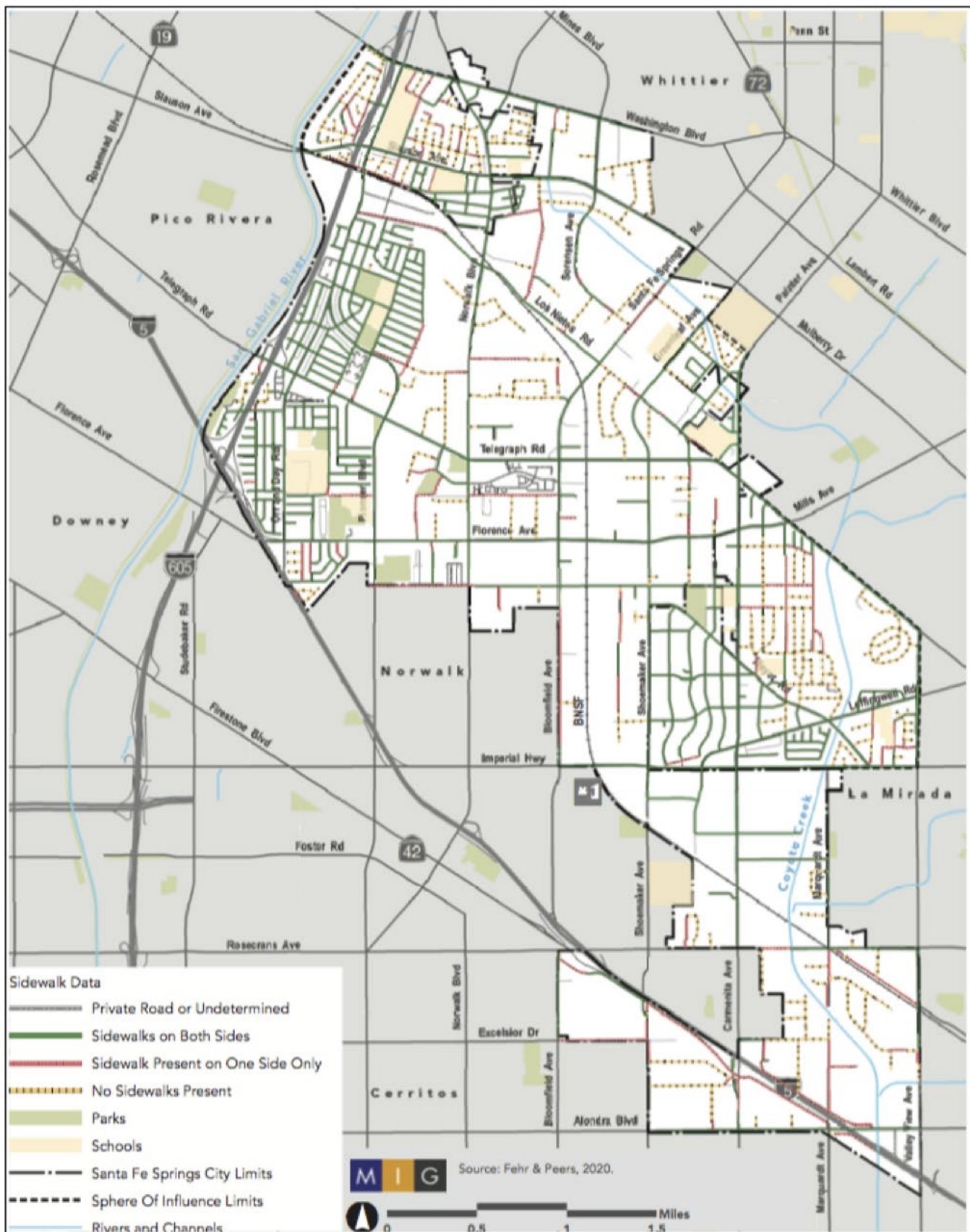
## Exhibit 4.17-5 Existing Bicycle Facilities (2020)

### Santa Fe Springs General Plan and Targeted Zoning Code Update

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## Exhibit 4.17-6 Sidewalk Inventory (2020)

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## 4.17.2 – REGULATORY FRAMEWORK

### Federal

No federal agencies or regulations directly apply to the General Plan's transportation impacts.

### State

**State of California Department of Transportation (Caltrans).** The State of California Department of Transportation (Caltrans) implements State planning priorities in all plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact State highway facilities. Pursuant to Public Resources Code § 21092.4, for projects of statewide, regional, or area-wide significance, the lead agency must consult with transportation planning agencies and public agencies that have transportation facilities which could be affected by a project.

**Senate Bill (SB) 743.** On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the California Environmental Quality Act (CEQA) process for several categories of development projects including the development of infill projects in transit priority areas and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to the CEQA Statute (Section 21099). Among other things, SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of LOS in CEQA documents. Formerly, environmental review of transportation impacts focused on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS. Pursuant to SB743, the focus of transportation analysis changes from vehicle delay to vehicle miles traveled (VMT). OPR released two rounds of draft proposals for updating the CEQA Guidelines related to evaluating transportation impacts and, after further study and consideration of public comment, submitted a final set of revisions to the Natural Resources Agency in November 2017. This was followed by a rulemaking process that would implement the requirements of the legislation. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. OPR's regulatory text indicates that the new transportation impact guidelines emphasizing vehicle miles traveled (VMT) instead of Level of Service (LOS) had to be implemented statewide by July 1, 2020.

### Regional

**Southern California Association of Governments (SCAG).** The Southern California Association of Governments (SCAG) is the designated Metropolitan Planning Organization (MPO) responsible for development of the Regional Transportation Plan (RTP), which presents the vision for transportation throughout most of Southern California, including Los Angeles County. Senate Bill 375 (SB 375) was passed to reduce greenhouse gas emissions from both automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Under SB 375, SCAG is tasked with developing a Sustainable Communities Strategy (SCS). The SCS, as a component of the RTP, provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board.

**Long Range Transportation Plan (LRTP).** The Long Range Transportation Plan (LRTP), prepared by Metro, is the long range plan that responds to emerging environmental challenges

through the provision of new initiatives and recommendations that include driving alternatives, mobility improvements, enhanced public transit, expanded rail, and the development of major corridor projects in Los Angeles County.

**Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).** The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), prepared by the Southern California Association of Governments (SCAG), has numerous goals to increase mobility for the region's residents and visitors, and an emphasis on sustainability and integrated planning to collectively improve the region's mobility, economy, and sustainability. The RTP/SCS must be approved by Federal agencies in order to receive Federal transportation funds. Only projects and programs included in the RTP are eligible for Federal funding. SCAG adopted the 2020-2045 RTP/SCS in February 2020. It should be noted this program is now referred to as "Connect SoCal".

**SCAG Regional Comprehensive Plan.** The Regional Comprehensive Plan (RCP) is part of an overall regional planning process that is linked directly to SCAG's Growth Management Plan, the Housing Allocation Process, and the South Coast Air Quality Management District's Air Quality Management Plan. The last RCP was adopted by SCAG in 2008 and includes elements on Land Use and Housing, Open Space and Habitat, Water, Energy, Air Quality, Solid Waste, Transportation, and Security and Emergency Preparedness.

**Highway Performance Monitoring System (HPMS).** The Highway Performance Monitoring System (HPMS) is a Federally mandated inventory system and planning tool designed to assess the nation's highway system. HPMS is used as a management tool by the Federal and State governments and local agencies to analyze the system's condition and performance. The HPMS data are used for allocation of Federal funds, identification of travel trends and future forecasts, Environmental Protection Agency air quality conformity tracking, and biennial reports to the United States Congress on the state of the nation's highways. The HPMS is administered by Caltrans, with technical data provided by local agencies.

**Access Services.** Access Services is a State-mandated local governmental agency created by Los Angeles County's public transit agencies to administer and manage the delivery of regional American with Disabilities Act (ADA) paratransit service. Access Services was established by 44 public fixed route transit operators in Los Angeles County. It is governed by a nine-member board appointed by the Los Angeles County municipal fixed route operators, the City of Los Angeles, the County of Los Angeles, the Transportation Corridor Representatives of the Los Angeles branch of the League of Cities, the Los Angeles County Commission on Disabilities, and the Coalition of Independent Living Centers.

## **Local**

**City General Plan.** The Circulation Element of the existing 1994 General Plan is a comprehensive plan for vehicular and non-vehicular circulation and transportation within the City and the Planning Area. The Circulation Element of the General Plan is required by Government Code Section No. 65302(b), which dictates that: "...the General Plan shall have a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other public local utilities and facilities, all correlated with the land use element of the General Plan. The Circulation Elements' Master Plan of Arterial Highways (MPAH) identifies the necessity of providing added capacity on several existing major roadways in the City.

## 2021 General Plan Update

The Circulation Element of the GPTZCU includes the following goals and policies relative to transportation:

### **GOAL C-1: A MULTIMODAL MOBILITY NETWORK THAT EFFICIENTLY MOVES AND CONNECTS PEOPLE, DESTINATION, VEHICLES, AND GOODS**

**Policy C-1.1: Multi-Modal.** Use a multimodal approach when pursuing street and other transportation network improvements, including accommodating pedestrians, cyclists, transit riders, and motor vehicles, and that accounts for land use and urban form factors that affect accessibility.

**Policy C-1.2: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.

**Policy C-1.3: Street Classification.** Designate a street's functional classification based upon its current dimensions, land use and urban form context, and priority for various users and transportation options.

**Policy C-1.4: Context-Sensitive Improvements.** Pursue context-sensitive Complete Streets strategies that recognize the City's various neighborhoods and community character and geographic complexity.

**Policy C-1.5: Transportation Priority.** Prioritize transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities.

### **GOAL C-2: STREETS DESIGNED AND MANAGED TO EASE ACCESS FOR ALL USERS**

**Policy C-2.1: Accessibility.** Identify and evaluate the transportation system for potential improvements to accommodate seniors and disabled persons and to comply with ADA requirements.

**Policy C-2.2: Senior Transportation.** Identify multiple mobility options, including paratransit, to help improve access and connectivity for senior and/or disabled persons.

**Policy C-2.3: Rights-of-Ways.** Use available public rights-of-ways to provide wider sidewalks, bicycle lanes, trail facilities, and transit amenities.

**Policy C-2.4: Equity.** Plan for the equitable treatment of all transportation users when planning and constructing transportation projects through a transparent and fair process.

**Policy C-2.5: Universal Access:** Ensure accessibility of pedestrian facilities to the elderly and mobility impaired.

**Policy C-2.6: Increasing Access of Vulnerable Populations.** Identify strategies and physical improvements to remove mobility barriers and to reduce travel time for vulnerable populations, including low-income households, seniors, and children within all areas of the communities, but also prioritize Disadvantaged Communities areas.

**Policy C-2.7: Micromobility.** Plan for future micromobility within the City by considering use within public right-of-way and parking facilities, address public safety, and utilize pilot programs and demonstrations to evaluate potential systems in the City.

**Policy C-2.8: Community Engagement.** Involve the community and expand education in transportation planning and project design decisions for improving the transportation infrastructure and mobility network.

**Policy C-2.9: Sidewalk Maintenance and Upkeep.** Ensure established sidewalks and related physical improvements are preserved and maintained to provide a comfortable, safe, and desirable experience.

**GOAL C-3: ACTIVE TRANSPORTATION NETWORK: CONNECTED STREET NETWORK FOR PEDESTRIANS AND CYCLISTS**

**Policy C-3.1: Promote Walking.** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

**Policy C-3.2: Pedestrian Design.** Design and operate sidewalks, streets and intersections to maximize pedestrian safety and comfort through a variety of street design and traffic management solutions.

**Policy C-3.3: Pedestrian Priority Zones.** Create pedestrian priority zones around transit stations and along heavy traveled corridors to connect community facilities, commercial centers, and activity areas.

**Policy C-3.4: Connectivity.** Require that new developments increase connectivity through convenient pedestrian and bicycling connections to the established and planned street network.

**Policy C-3.5: Innovative Bicycle and Pedestrian Connections.** Investigate the use of easements and/or rights-of-way along flood control channels, public utilities, railroads, and streets by cyclists and pedestrians.

**Policy C-3.6: Active Transportation Facilities.** Promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles.

**Policy C-3.7 Bicycle Facilities.** Plan for new shared-use paths, bicycle lanes, buffered bicycle lanes, bicycle routes, and bicycle boulevards that establish a comprehensive bicycle network citywide.

**Policy C-3.8: Bicycle Parking.** Establish standards for bicycling parking that include racks and locks and integrate bike parking facilities within all community facilities and activity areas, and consider parking reductions for commercial developments that provide bicycling parking.

**Policy C-3.9: San Gabriel River.** Improve connectivity to the San Gabriel River Trail, including access to parks and open spaces along the river.

**Policy C-3.10: Wayfinding.** Develop a comprehensive bicycle and pedestrian wayfinding signage and pavement marking system program to guide visual connectivity to destinations such as parks, schools, landmarks, transit stations, community facilities, and activity centers.

**Policy C-3.11: Sidewalks Gaps.** Prioritize adding new sidewalks to streets either lacking sidewalks on both sides of the streets or on one side of the street, with added priority in disadvantaged communities.

**Policy C-3.12: Sidewalks Widening.** Evaluate widening sidewalks away from the curb to accommodate pedestrians along major transit routes and around planned and established transit stations.

**Policy C-3.13: Pedestrian and Bicycle Safety.** Prioritize street and sidewalk improvements along streets and intersections with high activity of vehicle collisions involving pedestrians and bicyclists, including those identified in Exhibit 4.17-5.

**Policy C-3.14: Neighborhood Streets.** Design or retrofit streets to improve walkability, strengthen connectivity, and enhance community identity; emphasize the provision of high-

quality pedestrian and bikeway connections to transit stops/stations, commercial centers, and local schools; and design new streets and consider traffic calming where necessary, to reduce neighborhood speeding.

**GOAL C-4: A COMPREHENSIVE TRANSIT SYSTEM THAT PROVIDES CONVENIENT AND RELIABLE TRANSIT ACCESS TO RESIDENTIAL NEIGHBORHOODS AND ACTIVITY DESTINATIONS**

**Policy C-4.1: Transit Stops and Stations.** Develop approaches and coordinate with other agencies to create comfortable, functional, informational, and safe transit shelters for bus stops and rail stations.

**Policy C-4.2: Transit Rider Needs.** Consult with all transit agencies operating in the City to ensure bus services and facilities meet the needs of residents and the business community, specifically targeting specific populations such as residents in high transit ridership areas, senior populations, school-age children, and residents living in disadvantaged communities.

**Policy C-4.3: First/Last Mile.** Encourage first/last mile infrastructure improvements, mobility services, transit facilities and amenities, and signage/wayfinding solutions to all bus stops and transit stations.

**Policy C-4.4: Transit Improvement Priority.** Prioritize transit and bus connectivity and access improvements within disadvantaged communities.

**Policy C-4.5: Improve Transit Access.** Improve multi-modal access to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station, including bicycle, micromobility, and pedestrian connections and improvements.

**Policy C-4.6: Metro L Line Expansion.** Consult with Metro during the planning and construction phases of Metro's L line and station along Washington Boulevard to ensure improvements achieve the City's connectivity and land use objectives.

**Policy C-4.7: Metro C Line Expansion:** Consult with regional partners and Metro to encourage expansion of the Metro C Line from its terminus in Norwalk to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station.

**Policy C-4.8: Light Rail Stations:** Consult with Metro to establish appropriate light rail stations that consider local context and provide opportunities for attractive design, placemaking, and integrating public art and amenities that reflect the City of Santa Fe Springs' community and culture.

**Policy C-4.9: Transit :** Require new development to post current transit and bus schedules and operating system information within communal gathering areas to encourage greater participation in public transportation.

**GOAL C-5: A MULTI-MODAL FREIGHT TRANSPORTATION SYSTEM THAT FACILITATES THE EFFECTIVE TRANSPORT OF GOODS WHILE MINIMIZING NEGATIVE IMPACTS ON THE COMMUNITY.**

**Policy C-5.1: Truck Routes:** Provide primary truck routes on selected arterial streets identified in Exhibit 4.17-4 with direct connections to the freeway system, and where necessary, place restrictions on other streets to minimize the impacts of truck traffic on residential and commercial/retail areas.

**Policy C-5.2: Minimize Community Impacts.** Investigate means to establish buffers such as walls, landscape screening, and/or barriers along truck, rail, and freeway routes, and adjacent to rail yards to minimize noise, vibration, and aesthetics impacts.



**Policy C-5.3: Street Design to Accommodate Trucks.** Require that all new construction or reconstruction of streets or corridors that are designated as truck routes be designed, constructed, and maintained to accommodate projected truck volumes and weights.

**Policy C-5.4: Minimize Truck Maneuvering on Streets.** Implement site design solutions or restrictions on new uses and development to minimize truck maneuvering on streets with substantial traffic during periods of high traffic volumes.

**Policy C-5.5: Minimize Roadway Damage:** Ensure that warehousing, logistic facilities, truck and container yards, and similar truck-heavy uses pay a fair share of the cost of repairing extensive damage and/or the cost of reconstructing established City roads caused by truck trips and excessive container weight.

**Policy C-5.6: Railroad Crossing Improvements** Pursue funding and innovative solutions to improve at-grade crossing safety improvements at all railroad and street/sidewalk crossings, with the goals of minimizing congestion and collisions and enhancing pedestrian and vehicle safety.

**Policy C-5.7: Hazardous Materials Transport:** Provide for the safe and expeditious transport of hazardous and flammable materials.

**Policy C-5.8: Parcel Delivery:** Develop a comprehensive curb management strategy to manage loading/unloading areas for local parcel and package deliveries within areas requiring high delivery demands and to minimize local congestion and illegal parking.

**Policy C-5.9: Residential Parcel Delivery:** Monitor parcel delivery activities within residential neighborhoods to minimize impacts.

#### **GOAL C-6: STREET DESIGNS THAT ACCOMMODATE TRANSPORTATION MODES AND USERS OF ALL ABILITIES**

**Policy C-6.1: Pedestrian Projects.** Incorporate new crossing treatments, curb treatments, signals and beacons, traffic-calming measures, and transit stop amenities identified in the Active Transportation Plan.

**Policy C-6.2: Street Rehabilitation:** Pursue a street rehabilitation plan that prioritizes street paving and resurfacing based on street condition, type of repair, cost effectiveness, and amount of vehicle and truck traffic that is implemented in an equitable manner.

**Policy C-6.3: Crosswalks:** Consider improvements at intersections or mid-blocks to improve crosswalk conditions, including more visible street markings and accommodating universal design standards.

**Policy C-6.4: Context Sensitive Street Design:** Maintain and implement street system standards for roadway and intersection classifications, right-of-way width, pavement width, design speed, capacity, and associated features such as landscaping buffers and building setback requirements.

**Policy C-6.5: Driveway Access:** Require the driveway access points onto arterial roadways be limited in number and location to ensure the smooth and safe flow of vehicles and bicycles.

**Policy C-6.6: Safe Routes to School:** Prioritize safety improvements to intersections, sidewalks, and crosswalks around schools and consult with schools to identify safe and efficient drop off and pick up routes around school sites.

**Policy C-6.7: Green Streets:** Integrate a green street approach into street improvements to address/include stormwater management, urban greenery, and sustainable landscaping improvements.

**Policy C-6.8: Streetscape Aesthetics.** Promote an enhanced aesthetic image through streetscaping, median improvements, and careful implementation of non-essential signage.

**Policy C-6.9: Interim Design Strategies.** Consider interim or temporary pilot strategies to integrate a parklet along a curb, transition a narrow corridor to a pedestrian route, or redesign a complex intersection before considering permanent and long-term solutions.

**Policy C-6.10: Improvement Consultation:** Consult with applicable regional, State, and federal agencies on freeway and roadway improvements and transportation plans and proposals.

**GOAL C-8: A TRANSPORTATION SYSTEM DESIGNED TO REDUCE VEHICLE MILES TRAVELED**

**Policy C-8.1: Reducing Vehicle Miles Traveled:** Integrate transportation and land use decisions to reduce vehicle miles traveled and greenhouse gas emissions.

**Policy C-8.2: Transportation Management Strategies:** Evaluate the potential of transportation demand management strategies and intelligent transportation system applications to reduce vehicle miles traveled.

**Policy C-8.3: Employee Incentives:** Encourage businesses to provide employee incentives to utilize alternatives to conventional automobile travel (i.e., carpools, vanpools, buses, cycling, and walking).

**Policy C-8.4: Air Quality:** Encourage the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's Regulations.

**Policy C-8.5: Employee Work Hours Variability:** Encourage businesses to use flextime, staggered working hours, telecommuting, and other means to lessen peak commuter traffic.

**Policy C-8.6: Ridesharing:** Promote ridesharing through publicity and provision of information to the public through web-based apps and other approaches through collaboration with other agencies and jurisdictions.

**Policy C-8.7: Caltrans Consultation:** Consult with Caltrans regarding freeway improvements that can affect City roadways and businesses.

**GOAL C-9: A STREET NETWORK MANAGED TO MINIMIZE CONGESTION AND TRAFFIC IMPACTS**

**Policy C-9.1: Traffic Impacts Mitigation:** Require new development projects to mitigate off-site traffic impacts consistent with City policy and regulations.

**Policy C-9.2: Traffic Impact Analysis:** Require new developments to include a traffic impact analysis.

**Policy C-9.3: Cut-Through Traffic:** Design local and collector streets and apply appropriate enforcement and education programs to discourage cut-through traffic through residential neighborhoods.

**Policy C-9.4: Traffic Signals:** Require new development to install traffic signals at intersections or arterials which, based on individual study, are shown to satisfy traffic signal warrants.

**Policy C-9.5: Jurisdiction Consultation:** Consult with neighboring jurisdictions to ensure that the cumulative traffic impacts of development projects do not adversely impact the City of Santa Fe Springs.

## **GOAL C-11: IMPLEMENTING PROMISING TECHNOLOGICAL ADVANCES AND CHANGES IN USE OF MOBILITY SERVICES**

**Policy C-11.1: Traffic Signal Coordination:** Implement traffic signal coordination on arterial streets to the maximum extent practical and integrate signal coordination efforts with those of adjacent jurisdictions.

**Policy C-11.2: Mobile Technology.** Encourage the use of mobile or other electronic devices with similar on-demand hailing functions, particularly for seniors, the disabled, and other mobility challenged persons.

**Policy C-11.3: Intelligent transportation Systems.** Implement intelligent transportation systems strategies—such as adaptive signal controls, fiber optic communication equipment, closed circuit television cameras, real-time transit information, and real-time parking availability information—to reduce traffic delays, lower greenhouse gas emissions, improve travel times, and enhance safety for drivers, pedestrians, and cyclists.

**Policy C-11.4: Autonomous Vehicles.** Update, when warranted, existing transportation systems and policies as autonomous and automated vehicles and their attendant facilities are developed locally and regionally.

**Policy C-11.5: Performance Analysis Measures.** Utilize technology to create performance measures to interpret data metrics of vehicles, bicycling, walking, and transit usage within streets, sidewalks, and public facilities.

### **4.17.3 – SIGNIFICANCE THRESHOLDS**

As identified in Appendix F of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

- A. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- B. Conflict or be inconsistent with CEQA Guidelines section 15064.3<sup>1</sup> subdivision (b).
- C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- D. Result in inadequate emergency access.
- E. Cause substantial adverse cumulative impacts with respect to transportation and traffic.

In addition, the City of Santa Fe Springs has established the following significance thresholds for VMT transportation impacts for several types of land uses in future development projects:

- For land use plans: a Plan exceeds 15% below City and Sphere of Influence (SOI) Existing VMT for Total VMT per service population.
- For residential projects: a Project exceeds 15% below City and Sphere of Influence (SOI) Existing VMT for home-based VMT per capita.
- For office (commercial or light industrial) projects: a Project exceed 15% below City and Sphere of Influence (SOI) Existing VMT for home-based work VMT per employee.

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<sup>1</sup> CEQA Guidelines section 15064.3(c) provides that a lead agency “may elect to be governed by the provisions” of the section immediately; otherwise, the section’s provisions apply July 1, 2020. Here, the City has not elected to be governed by Section 15064.3. Accordingly, an analysis of vehicles miles traveled (VMT) is not necessary to determine whether the GPTZCU would have a significant transportation impact.

- For regional retail projects: a Project results in a net increase in total VMT in comparison to the City + SOI Cumulative Plus-Project VMT
- For mixed-use projects: Evaluate each project land use component separately using the criteria above.

For projects that do not meet any of the screening criteria, a VMT analysis is required and should rely on a reasonable standard of care to develop trip generation and trip length estimates for the project uses. For land use plans (e.g., Specific Plan or General Plan) and projects consisting of residential, office, or retail, the VMT analysis should be conducted using the SCAG regional Travel Demand Model. For other project types, such as a performing arts center or special event venues, the VMT analysis should be customized to determine the unique trip generation and trip length characteristics of the proposed uses. This approach should be determined in consultation with City staff.

VMT analysis should include ‘project generated VMT’ for the project Traffic Analysis Zone (TAZ or TAZs) and “project effect on VMT” estimates under the scenarios below - the project should be isolated from other uses within the project TAZ. Project generated VMT shall include the VMT generated by the site compared back to the CEQA threshold of significance, as identified in CEQA Guidelines section 15064.3, subdivision (b). The project effect on VMT is the link based VMT for a geographic region which is more appropriate to review to evaluate how these developments change travel behavior in the region.

#### **4.17.4 – IMPACTS AND MITIGATION MEASURES**

##### **Conflicts with Plans or Programs**

***Impact TRANS-1 – Would the GPTZCU conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.***

This section evaluates if the proposed GPTZCU is generally consistent with the goals and policies of the Circulation Element related to vehicular and non-vehicular circulation. A discussion of Vehicle Miles Traveled (VMT) impacts is presented in Section 4.17 Impact TRANS-2 following this section.

##### **Analysis of Impacts**

**Congestion Management.** Level of Service (LOS) congestion on local streets and intersections is no longer a CEQA significance threshold; however, the City uses LOS analyses to identify specific improvements that individual projects need to install or contribute to as part of maintaining and improving the overall circulation networks (e.g., road improvements may include sidewalks, bicycle lanes, or transit stops/shelters that improve the non-vehicular circulation network as well). In the past, projects were analyzed to determine if they were consistent with the Los Angeles County Congestion Management Plan (CMP). However, the County has chosen to no longer formally participate in the CMP program.

While the City will still consider the traffic generation and distribution of future development from a planning and engineering perspective, any analysis of LOS is no longer relevant to determining significant traffic impacts under CEQA.

**Non-Vehicular Plan Consistency.** Goal C-1 of the Circulation Element and its policies seek to provide a multi-modal mobility network throughout the City including vehicles and non-vehicular modes of transportation. Goal C-3 and its policies would develop an active access network for pedestrians and bicyclists. Goal C-4 and its policies address various aspects of transit while Goal C-6 focuses on improving pedestrian access. Goal C-5 and its policies address freight and truck movement. In these ways the GPTZCU will help support and encourage non-vehicular access in the Planning Area and surrounding region.

Emphasizing non-vehicular transportation is also a key element of SB 375 and SCAG's 2020-2045 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS)(now called "Connect SoCal"). Non-vehicular transportation includes pedestrians (sidewalks, trails), bicycles (on-road lanes or off-road paths), bus transit, and train transit.

**Pedestrian (sidewalks and trails).** Sidewalks are generally available on all major roadways within the City, especially within the future downtown area and connecting to commercial areas. The General Plan envisions that sidewalks will eventually be provided on all roadways where they do not presently exist as development of new uses or redevelopment of existing uses occurs (see previous Exhibit 4.17-6). Goal C-3 and its policies would develop an active access network for pedestrians while Goal C-6 focuses on improving pedestrian access.

**Bicycles.** Bicycle lanes are classified as follows:

Class I – separate off-road bikeway or path dedicated exclusively for bicycles and pedestrians;

Class II – on-road lane or route within the right-of-way with a painted lines and signage; and

Class III – on-road routes for bicycles that are not marked and share the roadway with cars.

The City has a number of existing bicycle lanes on City streets and eventually plans to add on- and off-street bicycle lanes to allow for efficient bicycle movement throughout the City, as shown in the previous Exhibit 4.17-5.

**Transit.** The proposed GPTZCU includes an update of the General Plan Circulation Element. At present there are a number of transit organizations that provide services to the City along major roads and to major destinations within the City, as shown in the previous Exhibits 4.17-2 and 4.17-3. A major goal of the City is for residents and employees of the City to be able to take advantage of these non-vehicular transportation options (i.e., sidewalks, bicycle lanes, or transit) as they so choose, although using them as a replacement for commuting will only be possible if residents and workers in the City live within a convenient distance to their places of employment, schools, commercial centers, entertainment, etc.

The many goals and policies of the Circulation Element cited above clearly indicate the GPTZCU will emphasize non-vehicular modes of transportation and helping maintain the existing network of streets and intersections. The GPTZCU also supports the various transportation-related goals of the 2020-2045 RTP/SCS ("Connect SoCal")(see Table 4.11-4 in Section 4.11, Land Use and Planning). Therefore, the GPTZCU would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Impacts will be less than significant.

### Key Opportunity Sites

Future development of the four key opportunity sites will require an analysis of VMT and other related transportation issues (i.e., pedestrian and bicycle access plus transit) consistent with CEQA and the Connect SoCal program by SCAG.

### General Plan Update

Goal C-1 of the Circulation Element and its policies seek to provide a multi-modal mobility network throughout the City including vehicles and non-vehicular modes of transportation. Goal C-2 and its policies address roads and intersections while Goal C-9 and its policies attempt to minimize congestion on local roadways. Goal C-3 and its policies would develop an active access network for pedestrians and bicyclists. Goal C-4 and its policies address various aspects of transit while Goal C-6 focuses on improving pedestrian access. Goal C-5 and its policies address freight and truck movement. Finally, Goal C-11 and its policies address future use of technology to improve the City's transportation network.

Based on the availability of non-vehicular transportation options outlined in the proposed GPTZCU Circulation Goals C-1 through C-11 and their attendant policies (shown above in Section 4.17.2), the proposed GPTZCU will not conflict with any applicable program, plan, or ordinance on the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Conflicts with New VMT Thresholds**

***Impact TRANS-2 – Would the GPTZCU conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)? [regarding VMT]***

### **Analysis of Impacts**

In the past, the CEQA analysis for traffic impacts focused on LOS which measures congestion at local intersections and roadway segments. The emphasis of these past studies was to assure the street grid network functioned well (i.e., were not congested past a certain point) and allowed for efficient movement of vehicles.

In the fall of 2013, Senate Bill 743 (SB 743) was passed by the legislature and signed into law by the governor. SB 743 requires that congestion or delay-based metrics such as roadway capacity and Level of Service (LOS) will no longer be the performance measures used for the determination of the transportation impacts of projects in studies conducted under CEQA. Instead, new performance measures such as Vehicle Miles Traveled (VMT) will be used.

For planning and engineering purposes, the GPTZCU Traffic Study focuses on LOS to identify congestion changes at local intersections and on local roadways as a result of traffic generated by future development in the Planning Area under a number of time-based scenarios (e.g., existing conditions, existing conditions plus GPTZCU, General Plan Buildout, etc.). However, as noted above the CEQA thresholds of significance for transportation and traffic impacts is to

encourage non-vehicular or active transportation (e.g., pedestrians, bicyclists, etc.) and transit, and to limit the increase in VMT by City residents and workers.

VMT growth associated with land use and transportation projects is part of the adopted regional transportation plans (RTPs), regional transportation plans/sustainable communities strategies (RTP/SCSs), and general plans. These plans typically consider the acceptability of VMT growth at a cumulative or programmatic level. Additional VMT reduction may be achieved at the project level especially through transportation demand management (TDM) strategies, which are not fully accounted for in regional level travel forecasting models.

Although VMT is focused on auto travel, the goal of a zero-or-less per capita VMT growth rate leads to an emphasis on the effects of development patterns (e.g., land use mix and density) together with pedestrian, bicycle, and transit infrastructure, given that all of these factors have an impact on the number and length of vehicle trips.

A detailed VMT analysis for the GPTZCU was prepared by Fehr & Peers in July 2021 (F&P 2021) consistent with the City's latest requirements.

The methodology for determining LOS transportation impacts in the City is contained in its previous General Plan, last updated in 1994, and are consistent with 1997 LA County Traffic Impact Analysis Guidelines. The City is currently in the process of developing revised Transportation Study Guidelines (TSG) which outline the following process for performing a VMT analysis:

- Determine if VMT analysis is necessary by comparing project characteristics for each land use to the County's screening criteria.
- If a project component does not meet any of the screening criteria, perform VMT analysis for only the component that does not meet the screening criteria to determine that component's VMT (using the appropriate metric based on land-use type).
- Compare the project component VMT to the significance criteria to determine if there is VMT transportation impact.
- If there is an impact, identify mitigation measures to reduce the project impact.

The Southern California Association of Government (SCAG) Regional Travel Demand Model (hereinafter, "SCAG Model") was used to estimate VMT in the City. VMT is presented in numerous different forms depending on the analysis being conducted. "Home-Based VMT" per capita is used for residential projects and "Home-Based Work VMT" per employee for office projects. For general plans, Total VMT per service population or Total VMT is used to determine potential impacts.

Pursuant to OPR and Santa Fe Springs's TSG, this VMT analysis includes 'project generated VMT' for the project TAZs and 'project effect on VMT' estimates under the following conditions.

- The Cumulative Base 2040 Conditions represent the 2016-2040 SCAG Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS). Cumulative Baseline VMT per Service Population is found in Exhibit 4.17-7 (2040 Cumulative Baseline VMT per Service Population).
- The Cumulative Plus Project 2040 Conditions represent the General Plan housing scenario. The amended General Plan land use is represented in the assumed growth of the cumulative year socioeconomic input data in the model. This is shown in Exhibit 4.17-8 (2040 Cumulative Plus-Project VMT per Service Population).

**Project-Generated VMT.** Project-generated VMT were extracted from the SCAG model by multiplying the origin-destination trip matrix by the final assignments under the Cumulative Plus Project 2040 Conditions. The summarized project generated VMT per service population is compared back to the thresholds of significance selected by the City of Santa Fe Springs. Santa Fe Springs's TSG provides that "Home-Based VMT" per capita to be prepared for residential projects and "Home-Based Work VMT" per employee for office projects, therefore this section also presents these two metrics along with Total VMT per service population, which are summarized in Table 4.17-2 (VMT Summary by Scenario).

Under Existing Conditions, the service population of 103,150 in the City and Sphere of Influence generates 3,414,318 vehicle miles traveled (VMT), including auto and trucks. This results in 33.1 VMT per service population, 17.2 Home-Based VMT per capita for residential land uses, and 18.1 Home-Based Work VMT per employee for employment land uses.

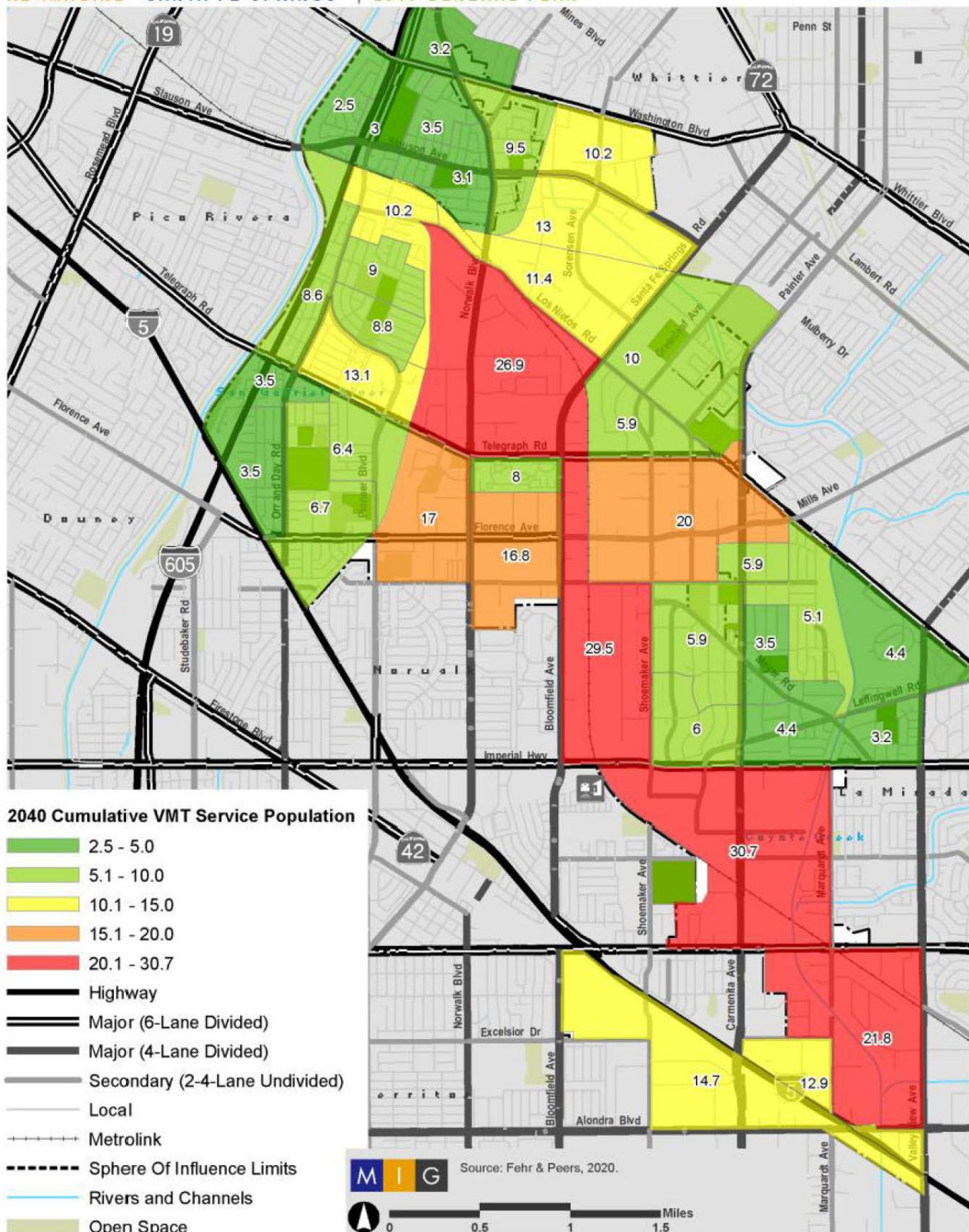
Under Cumulative Base 2040 Conditions, the service population of 112,084 shows a decrease in total VMT to 3,294,172. This results in 29.4 VMT per service population, 15.1 VMT per resident for residential land uses, and 17.2 VMT per employee for employment land uses.



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## 2040 Cumulative VMT per Service Population

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



**Exhibit 4.17-7 2040 Cumulative Baseline VMT per Service Population**

Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

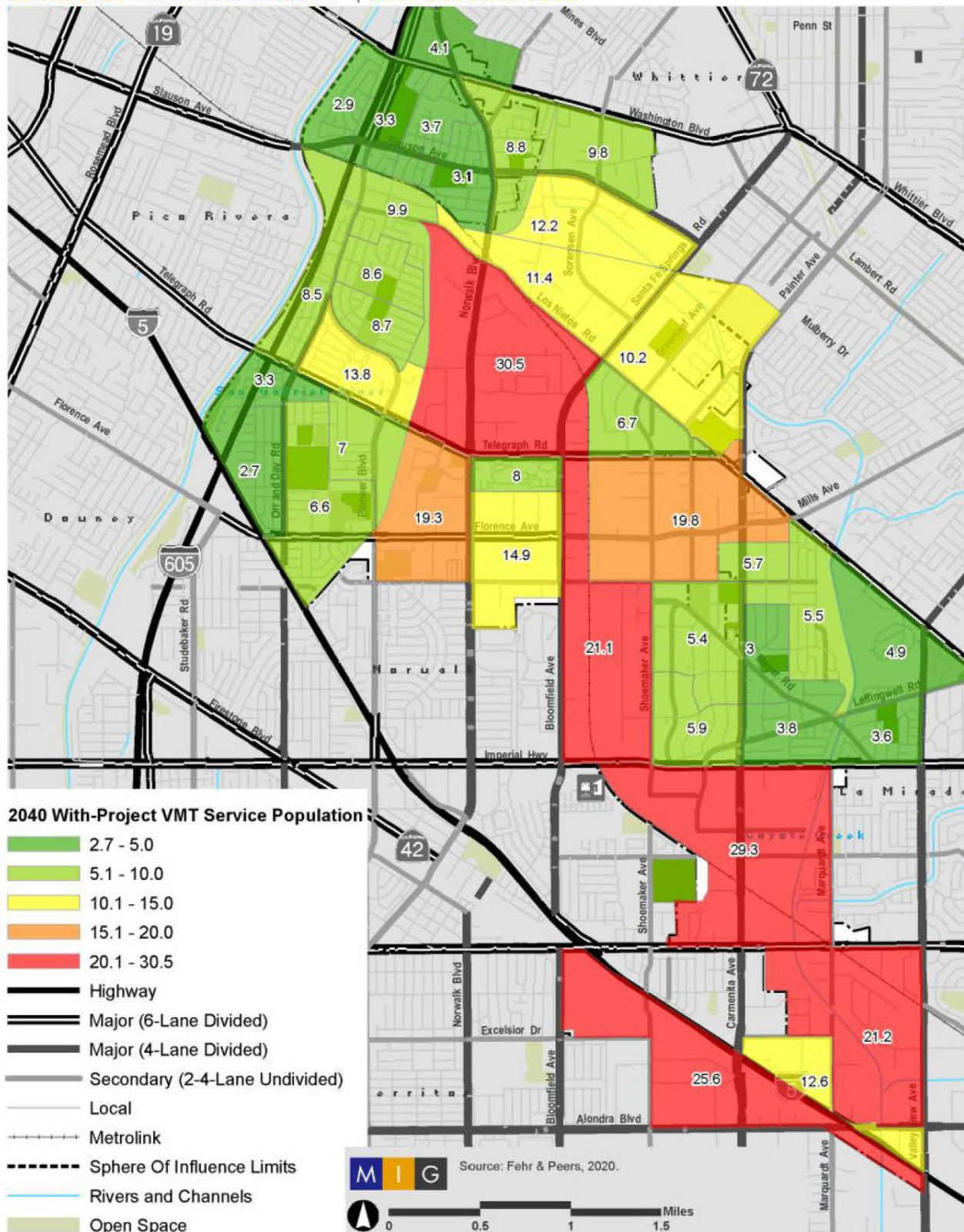


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# 2040 Cumulative Plus-Project VMT per Service Population

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



**Exhibit 4.17-8 2040 Cumulative Plus Project VMT per Service Population**



Santa Fe Springs General Plan and Targeted Zoning Code Update  
Santa Fe Springs, California

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Under the Cumulative Plus Project 2040 Conditions, VMT increases to reflect additional development in the City of Santa Fe Springs. The service population of 117,761, generates 3,345,193 total VMT. This results in 29.5 VMT per service population, 15.8 VMT per resident for residential land uses, and 17.3 VMT per employee for employment land uses.

**Table 4.17-2**  
**VMT Summary by Scenario**

SED/VMT Metrics	2020 Existing Conditions	Cumulative Base 2040 Conditions	Cumulative Plus Project 2040 Conditions
Population	46,915	53,350	59,005
Employment	56,235	58,734	58,756
Service Population	103,150	112,084	117,761
Total VMT (Include Auto and Trucks)	3,414,318	3,294,172	3,475,193
Home-Based VMT (Production)	806,373	806,463	933,259
Home-Based Work VMT (Attraction)	1,029,560	1,009,706	1,015,470
Total VMT per Service Population	33.1	29.4	29.5
Home-Based VMT per Capita	17.2	15.1	15.8
Home-Based Work VMT per Employee	18.3	17.2	17.3

Source: Table 1, Fehr & Peers, 2021

Project-effect on VMT were estimated using the City of Santa Fe Springs and Sphere of Influence boundary and extracting the total link-level VMT for the Cumulative Base 2040 Conditions and the Cumulative Plus Project 2040 Conditions. This method is comparing how the project changes VMT on the network looking at citywide VMT per service population comparing it to the no project condition.

As shown in Table 4.17-3 (Total Link-Level Boundary VMT by Scenario), additional auto VMT is generated in the City of Santa Fe Springs because of intensified new development anticipated by 2040. However, regional VMT is reduced because of the infill nature of this development and its proximity to high quality transit, which allows people more modal travel choices and shortens trip lengths.

**Table 4.17-3**  
**Total Link-Level (Boundary) VMT by Scenario**

Scenario	Santa Fe Springs and SOI (Auto)	Santa Fe Springs and SOI (Truck)
2040 Cumulative Baseline	3,329,563	738,432
2040 Cumulative Plus-Project	3,475,193	715,440
% Change	1.8%	-3.1%

Source: Table 2, Fehr & Peers, 2021

The estimated Project VMT was calculated based on the City of Santa Fe Springs and Sphere of Influence boundary, but the TAZs originally drawn in the SCAG model do not fully align with the Santa Fe Springs and Sphere of Influence boundary, with six TAZs split by the border. For three of these TAZs, the Sphere of Influence portion of the data continued to be assigned to the

original TAZ, and the rest of the data was added onto an adjacent TAZ outside the Sphere of Influence. For the other three TAZs, the non-Sphere of Influence data was retained in the original TAZ, and the rest of the data was added onto an adjacent TAZ within the Sphere of Influence. The exact splits were based on a variety of factors, with some from census data, others just based on the area inside and outside the Sphere of Influence. Table 4.17-4 (VMT Impact Thresholds) shows the 15% threshold targets when applied to existing VMT levels.

**Table 4.17-4**  
**VMT Impact Thresholds**

Scenario	Existing	Threshold
Total VMT per (SOI) Service Population	33.1	28.1
Home-Based VMT Per Capita	17.2	14.6
Home-Based Work VMT per Employee	18.3	15.6

Source: Table 3, Fehr & Peers, 2021

Overall, the analysis shows that the SCAG model predicts VMT per capita to decrease in the future due to increased development densities and transportation patterns. However, VMT per capita in California has continued to increase over the last several years and it is uncertain how much this trend will change over time.

Analysis of VMT per service population provides a coarse assessment of how trips, which are not all home-based, affect reported VMT efficiency. Precise methodologies for calculating this metric in traffic impact studies are still being developed and are therefore less reliable. The per service population metric includes all per capita trips, but also includes all trips into or out of the City, even if these do not originate from a home in the City. The per capita metric provides a measure of travel efficiency and helps depict whether people are traveling by vehicle more or less over time and can also be used to compare the VMT efficiency of different areas.

**At this time, the City of Santa Fe Springs cannot demonstrate that VMT will be reduced to the degree that it meets state goals related to VMT reduction.** VMT reduction depends on a variety of factors, such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute routes that are not under the City's jurisdiction, and transit provided by agencies other than the City.<sup>2</sup> Further, the California Air Resources Board (CARB), who has led much of the progress towards achieving emission reductions from the transportation sector, has not gathered sufficient data to determine the effectiveness of the assumed reductions. The feasibility and effectiveness of VMT mitigation measures such as a local or regional VMT impact bank or exchange is unknown at this time. Although the findings for the Project impacts indicates the Project is beneficial for VMT efficiency and meets is expected to produce VMT at a rate that would not result in a significant impact, as discussed above the model is not sensitive to many of the factors identified above that affect VMT per person. Given that this information, and the information presented by CARB related to the trend of VMT growth across the state (going up when the regional models predict that it should be decreasing) points to the uncertainty of the model in predicting VMT, therefore, the VMT impact is considered **significant and unavoidable**.

<sup>2</sup> "Travel behavior is influenced by a number of factors including personal income, the costs of owning and operating a vehicle, mobility options, the time cost of travel, urbanization, and highway capacity... Therefore, new mobility pricing policies are necessary to encourage more efficient driving behavior, including legislation to remove barriers for MPOs and locals to implement pricing." For more information, please see California Air Resources Board (CARB) 2018 (February). SB 375 Target Update Staff Report. Available: [https://ww3.arb.ca.gov/cc/sb375/sb375\\_target\\_update\\_final\\_staff\\_report\\_feb2018.pdf](https://ww3.arb.ca.gov/cc/sb375/sb375_target_update_final_staff_report_feb2018.pdf).

### Future Project Mitigation

Future projects consistent with the Housing Element will not require further VMT analysis, pursuant to the tiering provisions of CEQA. However, the significance threshold of 24.7 VMT/service population can be used for future land use amendments or other projects not within the scope of the EIR analysis. CEQA Guidelines Section 15064.3(b) allows lead agencies discretion to determine, in the context of a particular project, whether to rely on a qualitative analysis or performance-based standards. CEQA Guidelines Section 15064.7(b) allows lead agencies the discretion to select their own thresholds and allow for differences in thresholds based on context. Lead agencies also may need to balance multiple goals, such as accommodation of housing needs that may also contribute to VMT increases. Adding more impact mitigation costs to suburban housing projects may be counter to land use diversity and adequate/affordable housing goals.

The types of mitigation that affect VMT are those that reduce the number of single-occupant vehicles generated by the project. This can be accomplished by changing the land uses being proposed or by implementing Transportation Demand Management (TDM) strategies. TDM strategies have been determined to be among the most effective VMT impact mitigators. TDM strategies are reductions available from certain types of project site modifications, programming, and operational changes.

The effectiveness of identified TDM strategies is based primarily on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). The strategies described in the Table 4.17-5 (Transportation Demand Management Strategies) are a sample of the options most effective in areas like the City of Santa Fe Springs.

The CAPCOA document contains detailed equations on applying these TDM reductions given the land use type and built environment context. In addition, some TDM strategies have complementary benefits on reducing VMT and need to be considered in combination and not individually. Although SB 743 does not give guidance for assessing truck VMT and reduction strategies, Table 4.17-5 presents city-level TDM strategies that can help minimize VMT impacts.

Specific VMT mitigation strategies will need to be tailored to the project characteristics and their effectiveness needs to be analyzed and documented as part of the environmental review process to determine if impacts could be mitigated or if they would remain significant and unavoidable. Given that research on the effectiveness of TDM strategies is continuing to evolve, feasible mitigation measures should be considered based on the best data available at the time a project is being considered by the City and documented accordingly in the Transportation Study Guidelines. TDM strategies and their relationship to VMT reduction is found in Attachment D of the F&P 2021 Traffic Study (DEIR Appendix G).



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**Table 4.17-5  
Transportation Demand Management Strategies**

Strategy	Description	VMT Impact	Expected VMT Reduction	Estimated Total Cost <sup>3</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>4</sup>
<b>Adopted Plans</b>							
Provide Pedestrian Network Improvements	Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT.	Encourages people to walk within and to a Project.	CAPCOA <sup>5</sup> : 0%-2%  Adjusted <sup>6</sup> : 0.5%-5.7%	High <sup>7</sup>	High	High	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
Provide Traffic Calming Measures	Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements.	Encourages people to walk or bicycle, especially for shorter trips.	CAPCOA: 0.25%-1%  Adjusted: 0%-1.7%	Low	Low	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee

<sup>3</sup> Cost: Low if cost is thousands; Medium if cost is hundreds of thousands; High if cost is millions.

<sup>4</sup> means the strategy is applicable to the VMT metrics.

<sup>5</sup> Expected VMT reduction based on: *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), 2010.

<sup>6</sup> Adjusted expected VMT reduction based on new research conducted since publication of CAPCOA guidance in 2010.

<sup>7</sup> For Pedestrian Network Improvements, other improvements associated to rebuilding and providing sidewalks - such as lighting, landscape - may add up to the cost.

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Agency Coordination							
Expand Transit Network	Expanding the local transit network by adding or modifying existing transit service to enhance the service near the project site.	Reduction in vehicle trips due to increased transit service hours or coverage. Low end of reduction is typical of project-level implementation.	CAPCOA: 0.1%-8.2%  Adjusted: 0.1%-10.5%	High	High	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
Provide a Bus Rapid Transit System	Providing a Bus Rapid Transit (BRT) system with design features for high quality and cost-effective transit service.	Encourages people to use public transit and therefore reduce VMT.	CAPCOA: 0.02%-3.2%	High	High	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
Increase Transit Service Frequency/Speed	Reducing transit-passenger travel time through more reduced headways and increased speed and reliability.	Reduction in vehicle trips due to increased transit service hours or coverage. Low end of reduction is typical of project-level implementation.	CAPCOA: 0.02%-2.5%  Adjusted: 0.3%-6.3%	Medium/High <sup>8</sup>	Medium/High	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee

<sup>8</sup> Low/Medium cost, or Medium/High cost would depend on the program scale.

<b>Programs and Policies</b>							
Implement Commute Trip Reduction Programs - Voluntary	Implementing a voluntary Commute Trip Reduction (CTR) program with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. This strategy does not require monitoring, reporting, or established performance standards.	Encourages alternatives to commuting in single-occupancy vehicles.	CAPCOA: 1%-6.2%  Adjusted: 1%-6.0%	Medium	Medium	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
Implement Commute Trip Reduction Programs – Required Implementation/ Monitoring	Implementing a Commute Trip Reduction (CTR) ordinance. The intent of the ordinance will be to reduce drive-alone travel mode share and encourage alternative modes of travel. The critical components of this strategy are: <ul style="list-style-type: none"> <li>Established performance standards (e.g. trip reduction requirements)</li> <li>Required implementation</li> <li>Regular monitoring and reporting</li> </ul>	Commute VMT reduction due to employer-based mode shift program with required monitoring and reporting.	CAPCOA: 4.2%-21.0%	Medium	Medium	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
Implement Subsidized or Discounted Transit Program	Providing subsidized/discounted daily or monthly public transit passes or providing free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.	1] Reduction in vehicle trips in response to reduced cost of transit use, assuming that 10-50% of new bus trips replace vehicle trips.  2] Reduction in commute trip VMT due to employee benefits that include transit.  3] Reduction in all vehicle trips due to reduced transit fares system-wide, assuming 25% of new transit trips would have been vehicle trips.	CAPCOA: 0.3%-20%  Adjusted: 1] 0.3%-14% 2] 0-16% 3] 0.1%-6.9%	Low	Low	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee

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Provide Employer-Sponsored Vanpool/Shuttle	Implementing an employer-sponsored vanpool or shuttle. A vanpool will usually service employees' commute to work while a shuttle will service nearby transit stations and surrounding commercial centers.	<p>1] Reduction in commute vehicle trips due to implementing employer-sponsored vanpool and shuttle programs.</p> <p>2] Reduction in commute vehicle trips due to vanpool incentive programs.</p> <p>3] Reduction in commute vehicle trips due to employer shuttle programs.</p>	<p>CAPCOA: 0.3%-3.4%</p> <p>Adjusted:</p> <p>1] 0.5%-5.0%</p> <p>2] 0.3%-7.4%</p> <p>3] 1.4%-6.8%</p>	High on the Provider side.	<p>High if Public Provider.</p> <p>Low if Private provider.</p>	<p>Low if Public Provider.</p> <p>High if Private provider.</p>	<p>Total VMT per Service Population</p> <p>Home-Based VMT per Capita</p> <p>Home-Based Work VMT per Employee</p>
Encourage telecommuting and Alternative Work Schedules	Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered start times, flexible schedules, or compressed work weeks.	Reduces the number of days employees need to work and/or shifts commute time outside of peak periods to avoid adding congestion.	<p>CAPCOA: 0.07%-5.5%</p> <p>Adjusted: 0.2%-4.5%</p>	<p>Low IF less than 0.25% of current employees in Santa Fe Springs participate.</p> <p>Medium IF 0.25%-2.5% employees participate.</p> <p>High if &gt;2.5% employees participate.</p>	Depending on the program eligibility	Depending on the program eligibility	<p>Total VMT per Service Population</p> <p>Home-Based VMT per Capita</p> <p>Home-Based Work VMT per Employee</p>
<b>Parking Policy/Pricing</b>							
Limit Parking Supply	Projects can change parking requirements and types of supply within the Project site to encourage "smart growth" development and alternative transportation choices by project residents and employees.	Encourages alternatives to the use of single-occupancy vehicles.	<p>CAPCOA: 5%-12.5%</p> <p>Adjusted: 5%-30%<sup>9</sup></p>	Low	Low	Low	<p>Total VMT per Service Population</p> <p>Home-Based VMT per Capita</p> <p>Home-Based Work VMT per Employee</p>

<sup>9</sup> Newer research shows that VMT reductions for residential land use could be up to 30% in suburban locations. VMT reduction in the City of Santa Fe Springs would depend on local factors such as land use, built environment, and parking policies.

Unbundle Parking Costs from Property Cost	Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost.	Reduction in VMT, primarily for residential uses, based on a range of elasticities for vehicle ownership in response to increased residential parking fees. Does not account for self-selection. Only applies if the city does not require parking minimums and if on-street parking is priced and managed (i.e., residential parking permit districts).	CAPCOA: 2.6%-13%  Adjusted: 2%-12%	Low	Low	Low/Medium depending on specific parking policy.	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
<i>Supportive Infrastructure</i>							
Increase Transit Accessibility	Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT.	1] VMT reduction when a transit station is provided within 1/2 mile of development (compared to VMT for sites located outside a 1/2 mile radius of transit).  2] Reduction in vehicle trips due to implementing Transit Oriented Development (TOD).	CAPCOA: 0.5%-24.6%  Adjusted: 0%-5%.	Low	Low	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee
Implement Bike-Sharing Programs	Establishing a bike sharing program with stations at regular intervals throughout the project site. The number of bike-share kiosks throughout the project area should vary depending on the density of the project and surrounding area.	Has minimal impacts when implemented alone. This strategy's effectiveness is heavily dependent on the location and context. Should be combined with Bike Lane Street Design and Improve Design of Development.	Grouped strategy	Medium/High	Medium/High	Low	Total VMT per Service Population  Home-Based VMT per Capita  Home-Based Work VMT per Employee

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Provide Ride-Sharing Programs	<p>Promoting ride-sharing programs through a multi-faceted approach such as:</p> <ul style="list-style-type: none"> <li>• Designating a certain percentage of parking spaces for ride sharing vehicles;</li> <li>• Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles;</li> <li>• Providing an app or website for coordinating rides.</li> </ul>	Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT.	<p>CAPCOA: 1%-15%</p> <p>Adjusted: 2.5%-8.3%</p>	High on the Provider side.	High	Low	<p>Total VMT per Service Population</p> <p>Home-Based VMT per Capita</p> <p>Home-Based Work VMT per Employee</p>
Implement Commute Trip Reduction Marketing	Implementing marketing strategies to reduce commute trips through new employee orientation of trip reduction and alternative mode options, event promotions and publications.	<p>1] Vehicle trips reduction due to CTR marketing.</p> <p>2] Reduction in VMT from institutional trips due to targeted behavioral intervention programs.</p>	<p>CAPCOA: 0.8-4.0%</p> <p>Adjusted: 1] 0.9%-26%</p> <p>2] 1%-6%</p>	Low	Low	Low	<p>Total VMT per Service Population</p> <p>Home-Based VMT per Capita</p> <p>Home-Based Work VMT per Employee</p>
Implement Car-Sharing Program	Implementing car-sharing programs allows people to have on-demand access to a shared fleet of vehicles on an as-needed basis, as a supplement to trips made by non-SOV modes. Transit station-based programs focus on providing the “last-mile” solution and link transit with commuters’ final destinations. Residential-based programs work to substitute entire household based trips. Employer-based programs provide a means for business/day trips for alternative mode commuters and provide a guaranteed ride home option. The reduction shown here assumes a 1%-5% penetration rate.	Reduces need to own a vehicle or the number of household vehicles.	<p>CAPCOA: 0.4%-0.7%</p> <p>Adjusted: 0.3%-1.6%</p>	High on the provider side.	Low	High	<p>Total VMT per Service Population</p> <p>Home-Based VMT per Capita</p> <p>Home-Based Work VMT per Employee</p>

### Key Opportunity Sites

As future development projects, the four key opportunity sites will require an analysis of VMT and other related transportation issues (i.e., pedestrian and bicycle access plus transit) consistent with CEQA and the Connect SoCal program by SCAG.

### General Plan Update

Goal C-8 of the Circulation Element and its policies will support the City's efforts in the future to reduce and minimize additional VMT within the City and surrounding areas. Policy C-8.1 will help integrate transportation and land use decisions to reduce vehicle miles traveled and greenhouse gas emissions. Policy C-8.2 will identify the most appropriate transportation management strategies to reduce VMT. Policy C-8.3 will encourage businesses to provide employee incentives to utilize alternatives to conventional automobile travel (i.e., carpools, vanpools, buses, cycling, and walking). In addition, Policy C-8.4 will encourage the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's Regulations. Policy C-8.5 encourages employee work hour variability, Policy C-8.6 encourages ridesharing, and Policy C-8.7 requires the City to consult with Caltrans regarding freeway improvements that can affect City roadways and businesses.

Based on the availability of non-vehicular transportation options outlined in the proposed GPTZCU Circulation Goals C-1 through C-11 and their attendant policies (shown above in Section 4.17.2), the proposed GPTZCU will help reduce VMT within the City and Planning Area to the greatest extent feasible at this time. In the future, specific mitigation implemented on specific development projects may ultimately help reduce the City's VMT to below regional thresholds. However, at this time for this programmatic CEQA level analysis, the GPTZCU will conflict and be inconsistent with CEQA guidelines section 15064.3, subdivision (b) because it will not reduce City-wide VMT below regional thresholds. Therefore, impacts are potentially significant and unavoidable.

### **Level of Significance Before Mitigation**

Significant and Unavoidable (programmatic level).

### **Mitigation Measures**

None feasible at programmatic level.

### **Level of Significance After Mitigation**

Significant and Unavoidable (programmatic level).

### **Design Feature Hazards**

***Impact TRANS-3– Would the GPTZCU substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

### **Analysis of Impacts**

The City's street and intersection network is laid out in a grid pattern with a hierarchy of roadways by width and purpose. An overarching goal of the General Plan is to protect the health and safety of its residents and workers. The Circulation Element supports this effort by maintaining safe and efficient streets and intersections. Where traffic safety issues are



identified, the City works to correct any structural deficiencies in a timely manner to the degree practical. New housing projects under the GPTZCU would be required to comply with CEQA, and one of the transportation issues that must be addressed is to identify traffic hazards due to geometric design. The EIR for the GPTZCU has been prepared at a programmatic level, but future housing projects would be required to prepare project-level CEQA documentation. At that time any specific traffic hazards due to geometric design around the housing project site would be identified and mitigated to the extent possible or practical under CEQA.

#### Key Opportunity Sites

Future development of the four key opportunity sites will require an analysis of transportation issues including access and if there are any street or intersection geometrics that affect public safety.

#### General Plan Update

Goal C-1 of the Circulation Element and its policies seek to provide a safe mobility network throughout the City including vehicles and non-vehicular modes of transportation. Goal C-2 and its policies address roads and intersections while Goal C-9 and its policies attempt to minimize congestion on local roadways.

The City's development review process will also assure that future development under the GPTZCU will be consistent with these policies and thus prevent a significant increase in traffic hazards.

Based on the availability of non-vehicular transportation options outlined in the proposed GPTZCU Circulation Goals C-1 through C-11 and their attendant policies (shown above in Section 4.17.2), the proposed GPTZCU will help minimize street or intersection geometries that cause risks to public health or safety. Therefore, the GPTZCU will not substantially increase hazards due to any geometric design features. Impacts are less than significant in this regard.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Emergency Access**

#### ***Impact TRANS-4 – Would the GPTZCU result in inadequate emergency access?***

#### **Analysis of Impacts**

##### City-wide

As outlined in Impact TRANS-3 above, the City's streets and intersections are laid out in a grid pattern with a hierarchy of roadways by width and purpose. An overarching goal of the General Plan is to protect the health and safety of its residents and workers, which includes efficient access for emergency vehicles. The Circulation Element supports this effort by maintaining safe and efficient streets and intersections.

New housing projects under the GPTZCU would be required to comply with CEQA and one transportation issue (as outlined above) is to determine if the project would result in inadequate emergency access. The EIR for the GPTZCU has been prepared at a programmatic level, but

future housing projects would be required to prepare project-level CEQA documentation. At that time, any specific improvements needed to maintain adequate emergency access would be identified and required of the development to the extent possible or practical under CEQA.

#### Key Opportunity Sites

Future development of the four key opportunity sites will require an analysis of transportation issues including regular and emergency access and if there are any street or intersection limitations that could affect public safety.

#### General Plan Update

Goal C-1 of the Circulation Element and its policies seek to provide a safe mobility network throughout the City including vehicles and non-vehicular modes of transportation. Goal C-2 and its policies address roads and intersections while Goal C-9 and its policies attempt to minimize congestion on local roadways.

The City's development review process will also assure that future development under the GPTZCU will be consistent with these policies and thus allow for adequate emergency access.

Based on the proposed GPTZCU Circulation Goals C-1 through C-11 and their attendant policies (shown above in Section 4.17.2), the proposed GPTZCU will help maintain adequate emergency access to future development, including the four key opportunity sites. Therefore, the GPTZCU will not result in inadequate emergency access. Impacts are less than significant in this regard.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Cumulative Impacts**

***Impact TRANS-4 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to transportation and traffic?***

#### **Analysis of Impacts**

Future development under the GPTZCU will add housing in a jobs rich area but may nonetheless contribute additional traffic on local and regional networks and hinder compliance with the state and regional VMT reduction goals outlined in SCAG's RTP/SCS ("Connect SoCal") as outlined in Impact TRANS 2 above. Future regional transportation network improvements and transportation demand management (TDM) factors that SCAG has assumed for 2040 will incrementally help reduce regional VMT in the coming years as the SCAG RTP/SCS are implemented at the local level, including the City of Santa Fe Springs. For example, increased Metrolink transit opportunities will help support a mode shift from autos to transit. In addition, SCAG's RTP/SCS assumes that several TDM factors, such as increased auto ownership costs, shifts to telecommuting, and further implementation of regional trip reduction strategies, will help contribute to this mode shift as well.

However, Impact TRANS-2 above did conclude the GPTZCU could have significant and unavoidable VMT impacts and there were no feasible programmatic mitigation measures that were applicable to the GPTZCU at this time. To the degree practical, VMT mitigation measures

#### *4.17 – Transportation*

as appropriate will be applied to specific development projects in the future, including the four key opportunity sites. With this future site-specific mitigation, the GPTZCU will not make a significant contribution to any cumulatively considerable transportation impacts, including VMT.

#### **Level of Significance Before Mitigation**

Significant and Unavoidable (increased VMT).

#### **Mitigation Measures**

Significant and Unavoidable (increased VMT).

#### **4.17.5 – REFERENCES**

City of Santa Fe Springs. City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan. Prepared by MIG. August 2020.

Fehr & Peers (F&P 2021). Santa Fe Springs General Plan Update, Transportation Report. Fehr and Peers, June 25, 2021.

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## 14.18 – Tribal Cultural Resources

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This section addresses potential impacts to Tribal Cultural Resources (TCR) associated with the General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are impacts to Native American sites, features, places, cultural landscapes, sacred places, and objects with cultural value to Native American tribes that are identified within CEQA Guidelines: whether the GPTZCU will cause a substantial adverse change in the significance of a tribal cultural resources, or objects with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, or a resources determined by the Lead Agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

### 4.18.1 – ENVIRONMENTAL SETTING

Tribal Cultural Resources are the physical artifacts associated with the spiritual and religious lives of Native people that ties them together with their environment, each other, and their place in the universe. Before the arrival of Spanish settlers in the 1700s, the area that would later become Santa Fe Springs consisted of Tongva People that inhabited a village called Sejatnga near the current City of Whittier and the San Gabriel River. By 1806, the Tongva were providing labor for Spanish missions. The area was part of the early Spanish rancho of Jose Manuel Nieto, the holder of the largest Spanish land grant in California, stretching from the Pacific Ocean to the Puente Hills. Puente Hills, located in the largely unincorporated area just north of the City of Whittier, contains archaeological and paleontological resources that pre-date Spanish and Mexican land grants, dating back thousands of years and reflecting Native American settlement patterns (Santa Fe Springs, 2020). Given the long history of Native American settlement in the region, there is a high probability of finding archaeological resources in the Planning Area.

### 4.18.2 – REGULATORY FRAMEWORK

#### Federal

**National Historic Preservation Act of 1966.** Enacted in 1966, the National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings.

**Section 106 of the Federal Guidelines.** Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings. The Section 106 process also gives

Federally recognized Native American Tribes the chance to consult and comment on the project before it can be finalized.

**Native American Graves Protection and Repatriation Act of 1990.** The NAGPRA of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

#### **State**

**Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991.** Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

**California Native American Graves Protection and Repatriation Act of 2001.** Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to “provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect,” the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

**California Assembly Bill 52.** AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

**Senate Bill (SB) 18.** California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission’s SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

## Local

### 2021 General Plan Update

The GPTZCU contains the following goals and policies to help identify and protect tribal cultural resources within the Planning Area:

#### *Land Use Element*

**Goal LU-12: City’s historical and cultural assets are protected, preserved, and celebrated.**

**Policy LU-12.3: Archaeological Resources.** Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.

**Policy LU-12.4: Cultural Resources.** Review all development and redevelopment proposals for the possibility of cultural resources, including the need for individual cultural resource studies, including subsurface investigations.

### 4.18.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

- A. Causes a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
  - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

- B. Would the project cause substantial adverse cumulative impacts with respect to tribal cultural resources.

#### 4.18.4 – IMPACTS AND MITIGATION MEASURES

***Impact TRC-1 – Would the GPTZCU cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k),***

##### **Analysis of Impacts**

###### City-wide

The definition for a Tribal Cultural Resource (TCR) is described in Section 4.18.3, above. There are no known TCRs in the City of Santa Fe Spring that are not archaeological in nature. This means that there are no landscapes, places that are not archaeological sites, or other non-archaeological features that could be a TCR within the Planning Area. Analysis, therefore, will consider impacts to TCRs in a similar way as to prehistoric archaeological resources.

Prior to European contact, the Planning Area was inhabited by the Gabrieleño Indian Tribe for many thousands of years. Development began in the Santa Fe Springs area in the first half of the 19<sup>th</sup> century, but the surrounding area is known to contain archaeological resources that pre-date Spanish and Mexican land grants. Additionally, the Planning Area is located adjacent to the modern route of the San Gabriel River. The river in prehistory changed its course with winter floods and would have flowed over the alluvial soils in the planning area. Native Americans would have used the natural resources of the San Gabriel River and its tributaries as a source of water and food. It is almost certain the planning area would have been utilized heavily by the indigenous people living in this area for thousands of years.

Much of the City is heavily developed, greatly reducing the potential for the discovery of TCRs. Areas that could have potential for discovery include undeveloped land, and prior development with shallow foundations.

###### Key Opportunity Sites

Three of the four opportunity sites are developed and all are in urbanized settings - only the MC&C site is currently vacant. None of these sites contain any identified archaeological or tribal cultural resources. Due to their past level of disturbance, it is unlikely that development of the sites would require cultural resource assessments. However, due to the long history of Native American occupation in the Los Angeles basin, developers of these sites should enter into grading monitoring agreements with the appropriate Native American tribal representatives.

###### Native American Consultation

Native American Consultation is required per SB18 when a General Plan, or General Plan Update is prepared, and must be conducted before the General Plan Update is adopted. On February 17, 2021, the City sent notices to the following nine (9) Native American Tribes/Tribal Representatives for both SB 18 and AB 52 to determine if they wished to consult with the City regarding the GPTZCU:

**Native American Tribal Group**

Gabrieleno Band of Mission Indians - Kizh Nation  
 Gabrieleno/Tongva San Gabriel Band of Mission Indians  
 Gabrielino /Tongva Nation  
 Gabrielino Tongva Indians of California Tribal Council  
 Gabrielino-Tongva Tribe  
 Juaneno Band of Mission Indians - Acjachemen Nation  
 Santa Rosa Band of Cahuilla Indians  
 Soboba Band of Luiseno Indians  
 Soboba Band of Luiseno Indians

**Tribal Representative**

Andrew Salas, Chairperson  
 Anthony Morales, Chairperson  
 Sandonne Goad, Chairperson  
 Robert Dorame, Chairperson  
 Charles Alvarez  
 Matias Belardes, Chairperson  
 Lovina Redner, Tribal Chair  
 Scott Cozart, Chairperson  
 Joe Ontiveros

As of publication of this Draft EIR, the 30-day AB 52 and the 90-day SB 18 consultation periods had expired and only the Gabrieleno Band of Mission Indians - Kizh Nation initially indicated a desire to consult with the City on the GPTZCU. However, upon learning there was no specific ground disturbance proposed, Ms. Brandy Salas with that tribe indicated in an email to Mrs. Anh Wood with the City dated May 11, 2021 that they no longer needed to consult regarding the GPTZCU but would want to consult with the City on any future actions that did result in ground disturbance. This information is also included in Section 4.5 (Cultural Resources).

**General Plan Update**

Even with the heavily developed nature of the City, the Land Use Element of the proposed GPTZCU does contain Goal LU-12 which emphasizes protecting and preserving the City's cultural heritage. Its supporting Policy LU-12.3 will assure that all development addresses the potential for subsurface archeological deposits (which may or may not be tribal cultural resources) by requiring archaeological surveys during the development review process when appropriate.

In addition, Section 7050.5 of the California Health and Safety Code requires that, if human remains are discovered during grading or earthmoving, work must be halted and the coroner contacted to determine the Most Likely Descendant (MLD). If the MLD is Native American, tribal representatives will be contacted to consult on the appropriate disposition of the remains. CEQA requires the City and any project developer, including the City if it is a public works or other City-sponsored project, to comply with state law if human remains are found during excavation.

The General Plan Update goals and policies serve to protect existing tribal resources by analyzing all proposed projects for the need for cultural resources surveys at the proposal stage. With these goals and policies, the City's development requirements to review CEQA documents for impacts to archaeological resources and required AB52 consultation for Negative Declarations, Mitigated Negative Declarations, and EIRs, potential impacts to tribal cultural resources by future development within the Planning Area, including the four key opportunity sites, will be less than significant.

**Level of Significance Before Mitigation**

Less than significant.

**Mitigation Measures**

None Required.



### Change TCR Significance

***Impact TRC-2 – Would the GPTZCU cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

### Analysis of Impacts

#### City-wide

The definition for a Tribal Cultural Resource (TCR) is described in Section 4.18.3, above. This includes all cultural resources, with cultural value to a California Native American tribe that meets the criteria for inclusion on the California Register of Historical Resources (CRHR).

This definition excludes cultural resources that ordinarily would be ineligible for inclusion on the CRHR. This impact considers TCRs that are not eligible for inclusion on the CRHR (i.e., if there is not a demonstrable public interest in that information, it does not possess a special and particular quality such as being the oldest of its type or the best available example of its type, and it is not directly associated with a scientifically recognized important prehistoric event or person).

#### Key Opportunity Sites

Three of the four opportunity sites are developed and all are in urbanized settings - only the MC&C site is currently vacant. None of these sites contain any identified archaeological or tribal cultural resources. Due to their past level of disturbance, it is unlikely that development of the sites would require cultural resource assessments. However, due to the long history of Native American occupation in the Los Angeles basin and the nearby Puente Hills, developers of these sites should enter into grading monitoring agreements with the appropriate Native American tribal representatives.

#### General Plan Update

Even with the heavily developed nature of the City, the Land Use Element of the proposed GPTZCU does contain Goal LU-12 which emphasizes protecting and preserving the City's cultural heritage. Its supporting Policy LU-12.3 will assure that all development addresses the potential for subsurface archeological deposits (although they may or may not be the same as tribal cultural resources) by requiring archaeological surveys during the development review process when appropriate.

In addition, Section 7050.5 of the California Health and Safety Code requires that, if human remains are discovered during grading or earthmoving, work must be halted and the coroner contacted to determine the Most Likely Descendant (MLD). If the MLD is Native American, tribal representatives will be contacted to consult on the appropriate disposition of the remains. CEQA requires the City and any project developer, including the City if it is a public works project, to comply with state law if human remains are found during excavation.

Native American consultation, as prescribed by SB18 and AB52 helps prevent impacts to cultural resources that are ordinarily not eligible for protection under CEQA. Additionally, Public Resources Code section 5024.1, ensures that the lead agency shall consider the significance of the resource to a California Native American tribe.

The General Plan Update goals and policies serve to protect existing resources by analyzing proposed projects for the need for cultural resources surveys at the proposal stage. By following these goals and policies, complying with existing regulations in Public Resources Code section 5024.1, potential impacts to tribal cultural resources within the Planning Area will be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Cumulative Impacts**

***Impact TCR-3 - Would the GPTZCU cause substantial adverse cumulative impacts with respect to tribal cultural resources?***

#### **Analysis of Impacts**

Prior to European contact, the Planning Area was inhabited by the Gabrieleño Indian Tribe for many thousands of years. The Planning Area is located adjacent to the modern route of the San Gabriel River. The river in prehistory changed its course with winter floods and would have flowed over the alluvial soils in the Planning Area. Native Americans would have used the natural resources of the San Gabriel River and its tributaries as a source of water and food. It is almost certain the Planning Area would have been utilized heavily by the indigenous people living in this area for thousands of years.

There is a potential for archaeological/Tribal Cultural Resources (TCRs) to exist within the Planning Area, particularly in the few remaining undeveloped areas of the City, or where existing older foundations are shallow, and where archaeological resources, including human remains, could remain below the prior level of disturbance. Therefore, it is possible that earthwork within the City or surrounding jurisdictions may disturb Native American tribal cultural or archaeological resources. State law requires local jurisdictions, including the City, to consult with local Native American tribal representatives when development or public works projects may affect tribal cultural resources (i.e., SB 18 and AB 52). This government-to-government consultation process is critical to identifying actions that could have significant impacts on tribal cultural resources before any ground disturbance occurs in the surrounding region.

On a cumulative level, impacts to tribal cultural resources from both the Planning Area and the surrounding jurisdictions (i.e. the cities of Norwalk, Downey, Pico Rivera, Whittier, La Mirada, Cerritos, and unincorporated Los Angeles County) should be considered. These jurisdictions contain TCRs which, as with all cultural resources, are non-renewable. Damaging, disturbing, or destroying TCRs results in a permanent loss of resources that can never be replaced, and future projects with impacts to cultural resources from all surrounding jurisdictions contribute to the cumulative impact to TCRs.

The Land Use Element of the proposed GPTZCU contains Goal LU-12 and its Policy LU-12.3 which will identify, preserve, and protect the City's TCRs and ensure that potential resources are analyzed and protected (as outlined in Impacts TCR-1 and TCR-2).

Existing regulations ensure that the City considers the significance of all cultural resources which have cultural value to a Native American tribe. Incorporating this regulation into the development process helps ensure that TCRs are protected where they would otherwise not be by CEQA.

Consistent with federal and state laws, the General Plans of the surrounding jurisdictions have similar goals and policies to protect cultural resources within their boundaries as well. Finally, state law requires the City and surrounding jurisdictions to notify Native American representatives if tribal human remains are found.

By adopting the General Plan Update goals and policies, following required laws and regulations, and continuation of the City's required CEQA review of all development projects, the potential cumulative impacts to cultural resources will be minimized, and future development in the City of Santa Fe Springs under the GPTZCU will not make a significant contribution to any cumulative regional impacts on cultural resources.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **4.18.5 – REFERENCES**

California Health and Safety Code, Section 7050.5.

Public Resources Code section 5024.1

California Public Resources Code Section 5097.

California State Parks, 2021. *California Register of Historical Resources*.  
<https://ohp.parks.ca.gov/ListedResources/> website (accessed March 12, 2021)

City of Santa Fe Springs, 1994. *The General Plan of Santa Fe Springs, Open Space Conservation Element*.  
(<https://www.santafesprings.org/civicax/filebank/blobdload.aspx?blobid=7152> website accessed March 12, 2021).

City of Santa Fe Springs, 2020. Public Draft *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*.  
([https://www.reimaginesantafesprings.org/files/managed/Document/69/SFS\\_GenPlan\\_Exist\\_CondsRprt\\_08-2020.pdf](https://www.reimaginesantafesprings.org/files/managed/Document/69/SFS_GenPlan_Exist_CondsRprt_08-2020.pdf) website accessed March 12, 2021).

National Park Service, 2021. *National Register of Historic Places*  
<https://www.nps.gov/subjects/nationalregister/database-research.htm> website (accessed March 12, 2021)

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## 4.19 – Utilities and Service Systems

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This EIR chapter addresses utilities and service systems impacts associated with the proposed General Plan and Targeted Zoning Code Update (GPTZCU). Issues of interest are utilities and service systems impacts identified by the CEQA Guidelines: whether the GPTZCU will require or result in the relocation or construction of new or expanded water, wastewater treatment, or other facilities; will have sufficient water supplies; will result in a determination by the wastewater treatment provider that it has adequate capacity to serve the Project's demand in addition to existing commitments; will generate solid waste in excess of standards; and will comply with regulations related to solid waste.

### 4.19.1 – ENVIRONMENTAL SETTING

This section addresses how water and sewer service and flood control infrastructure are provided through public utilities and contract services.

#### Water Service

Five water providers/districts serve the Planning Area, as shown in Exhibit 4.19-1, Water Facilities, and described in detail below.

**City of Santa Fe Springs Water Utility Authority.** The City of Santa Fe Springs Water Utility Authority is the retail water supplier that provides service for most of the City, covering approximately 90% of the land area within the City. The service area is approximately 85% commercial and industrial, and 15% residential. The City's historical water supply sources include local groundwater pumped from City wells, treated groundwater through the Water Quality Protection Program, treated imported water purchased from Metropolitan Water District through Central Basin Municipal Water District (CBMWD), and recycled water supplies provided by CBMWD.

**Golden State Water Company.** Golden State Water Company is a public utility water company that serves primarily residential customers in unincorporated portions east of the City (within the Sphere of Influence).

**Orchard Dale Water District.** The Orchard Dale Water District primarily serves residential customers in unincorporated neighborhoods east of the City. Most water is drawn from aquifers in the San Gabriel Main Basin and Coastal Plain of the Los Angeles Central Basin.

**San Gabriel Valley Water Company.** The San Gabriel Valley Water Company is an investor-owned water utility that provides water service to the northern section of the City and adjacent unincorporated areas.

**Suburban Water Systems.** Suburban Water Systems is a public utility water company that provides water service primarily to residential customers in unincorporated areas east of the City. Most water is drawn from groundwater through the City of Whittier from active deep wells located in the Whittier Narrows area.

Service providers serving Santa Fe Springs and surrounding unincorporated areas also receive groundwater from the Central Basin Water Quality Protection Program facility located in the

Central Basin, and surface water distributed by Metropolitan Water District of Southern California sourced from the Colorado River and the State Water Project in Northern California. Recycled water is used within the City's service area for landscape irrigation at parks, schools, athletic fields, roadway medians, and business complexes, and for industrial purposes.

Since the majority of the Planning Area is built out, the Urban Water Management Plans of the water service providers do not anticipate significant population growth and demand increases. The City's 2015 Urban Water Management Plan indicates sufficient water supply for projections through 2040, based on the existing general plan. Planned infrastructure improvements include a water treatment facility to treat iron, manganese, hydrogen sulfite and water color, and to reintroduce a City well that has not been in use since 2014 due to contaminants. Planned capacity improvements within Santa Fe Springs are primarily to update existing infrastructure and maintain adequate fire flows. To promote water conservation, the City encourages replacing existing lawn with drought-tolerant landscaping and other modes of water conservation.

### **Groundwater**

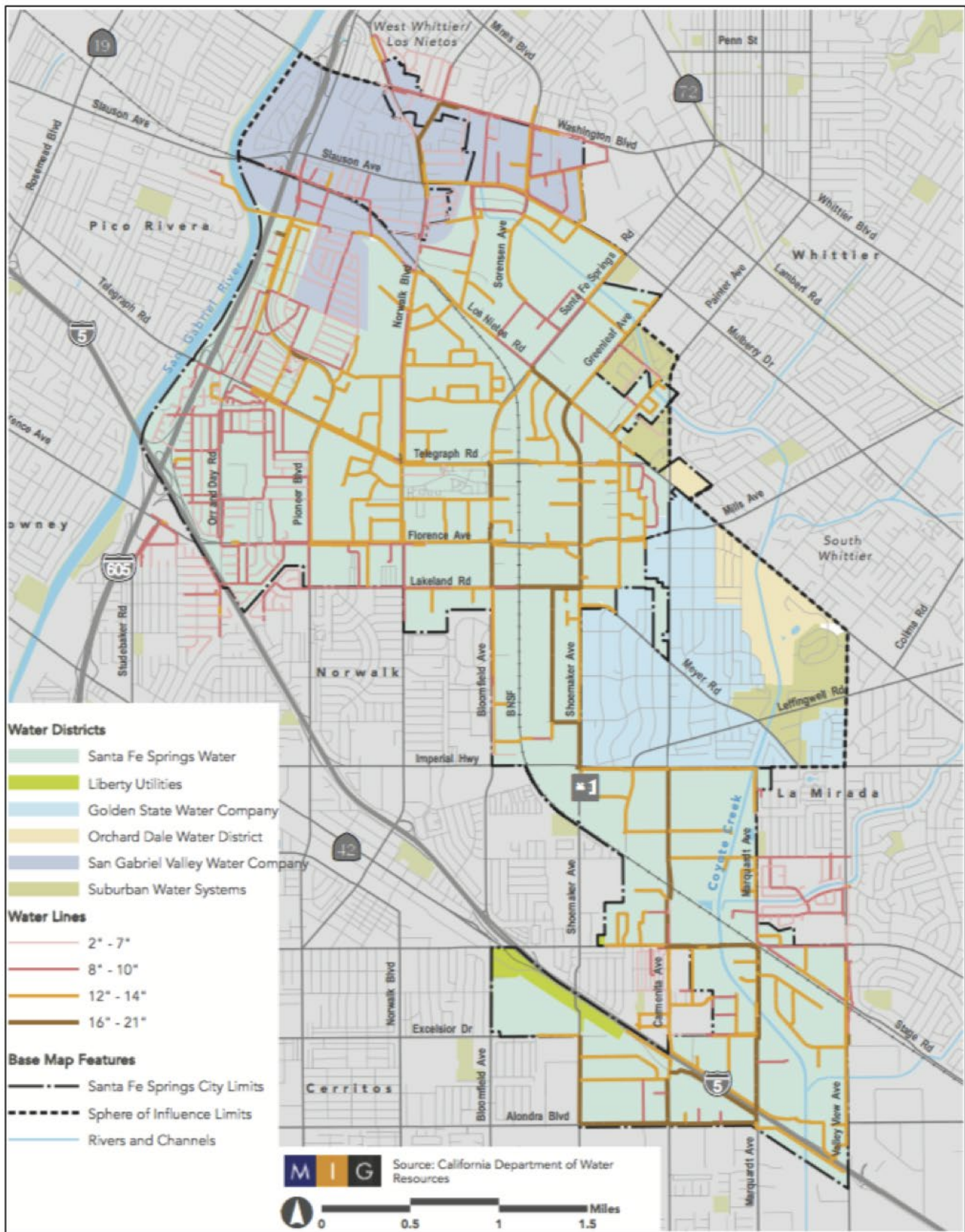
Santa Fe Springs is located over the Central Basin groundwater basin. On its north, the Central Basin is bounded by the Hollywood Basin, and that boundary runs through the City of Los Angeles. The remainder of the northern boundary of the Central Basin extends along the Merced Hills, across Whittier Narrows, and then along Puente Hills. The Central Basin consists of four sections: the Los Angeles Forebay, the Montebello Forebay, the Whittier Area, and the Pressure Area. The California Department of Water Resources does not identify the Central Basin as being in overdraft (as of 2020). The City owns three wells: Wells No. 1, 2, and 12. Well No. 1 was placed on standby in 2014 as a result of poor water quality. Well No. 2 has been on standby since 2008 due to water quality problems. Well No. 12 was drilled in 2013 and has been inactive since 2013 due to water quality issues. Wells No. 2 and No. 12 have production capacities of 1,900 and 2,000 gallons per minute, respectively. Water treatment facilities are planned for Wells No. 2 and No. 12. The City produced groundwater from the Central Basin from 2009 to 2014 from Well No. 1. The City has not pumped any groundwater from its wells since 2015.

### **Wastewater**

The local wastewater collection system is owned and operated by Los Angeles County Sanitation Districts (LACSD) and maintained by Consolidated Sewer Maintenance District (CSMD). The wastewater collection system consists of approximately 84 miles of sewer mains providing wastewater pipelines to homes, businesses, and institutions, as shown in Exhibit 4.19-2, Wastewater Facilities. Wastewater collected from businesses and residences within the City is treated at LACSD's Los Coyotes Water Reclamation Plant (LCWRP) and Long Beach Water Reclamation Plant (LBWRP); after treatment, the wastewater is recycled for further use or discharged into the San Gabriel River.

### **Stormwater**

The storm drain system in Santa Fe Springs is maintained by the Los Angeles County Flood Control District (LACFCD) which conveys stormwater through a network of mains and catch basins until it is eventually discharged in the Pacific Ocean via the San Gabriel River and its tributaries, such as Coyote Creek. Exhibit 4.19-3 shows the stormwater facilities.



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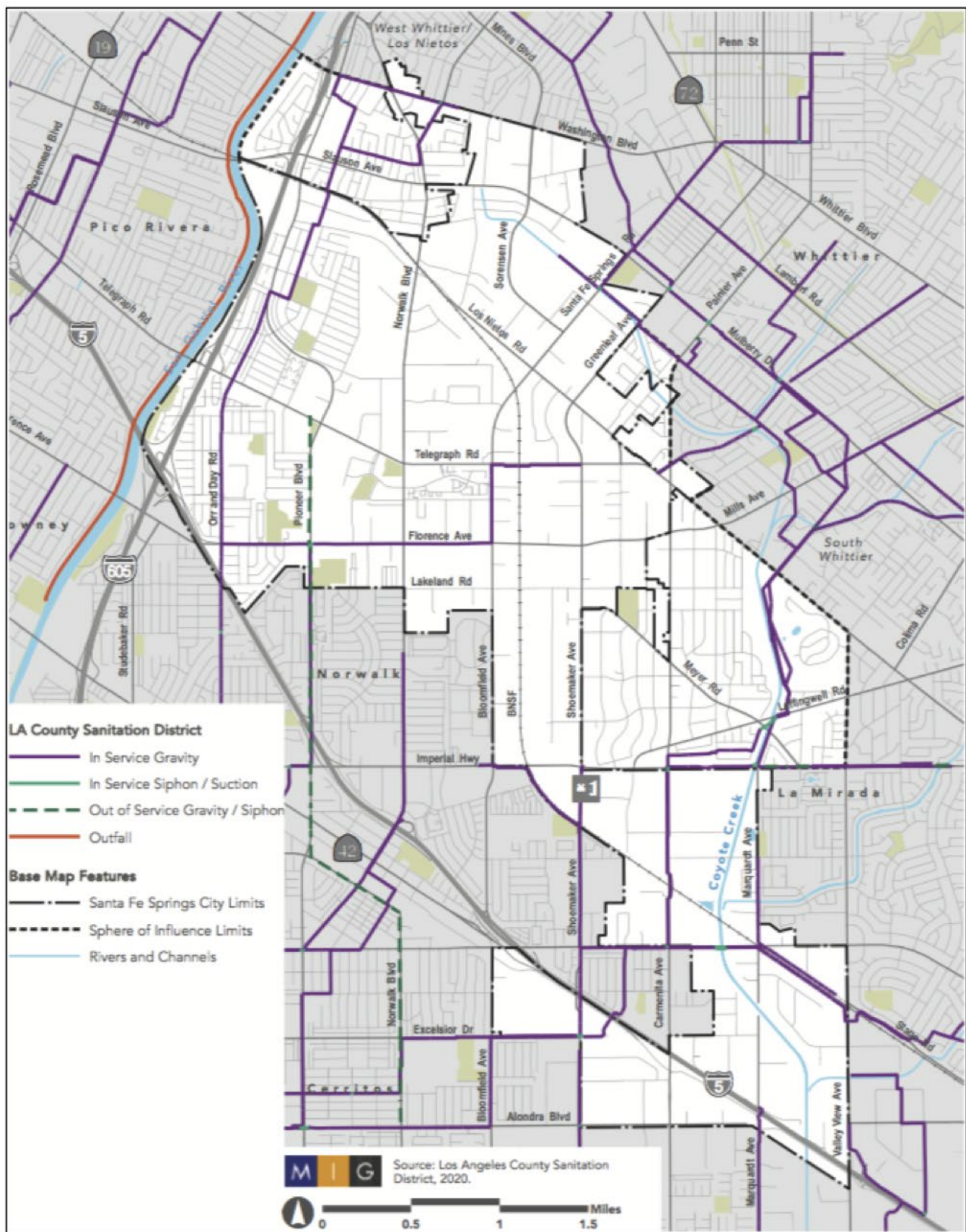
## Exhibit 4.19-1 Water Facilities

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

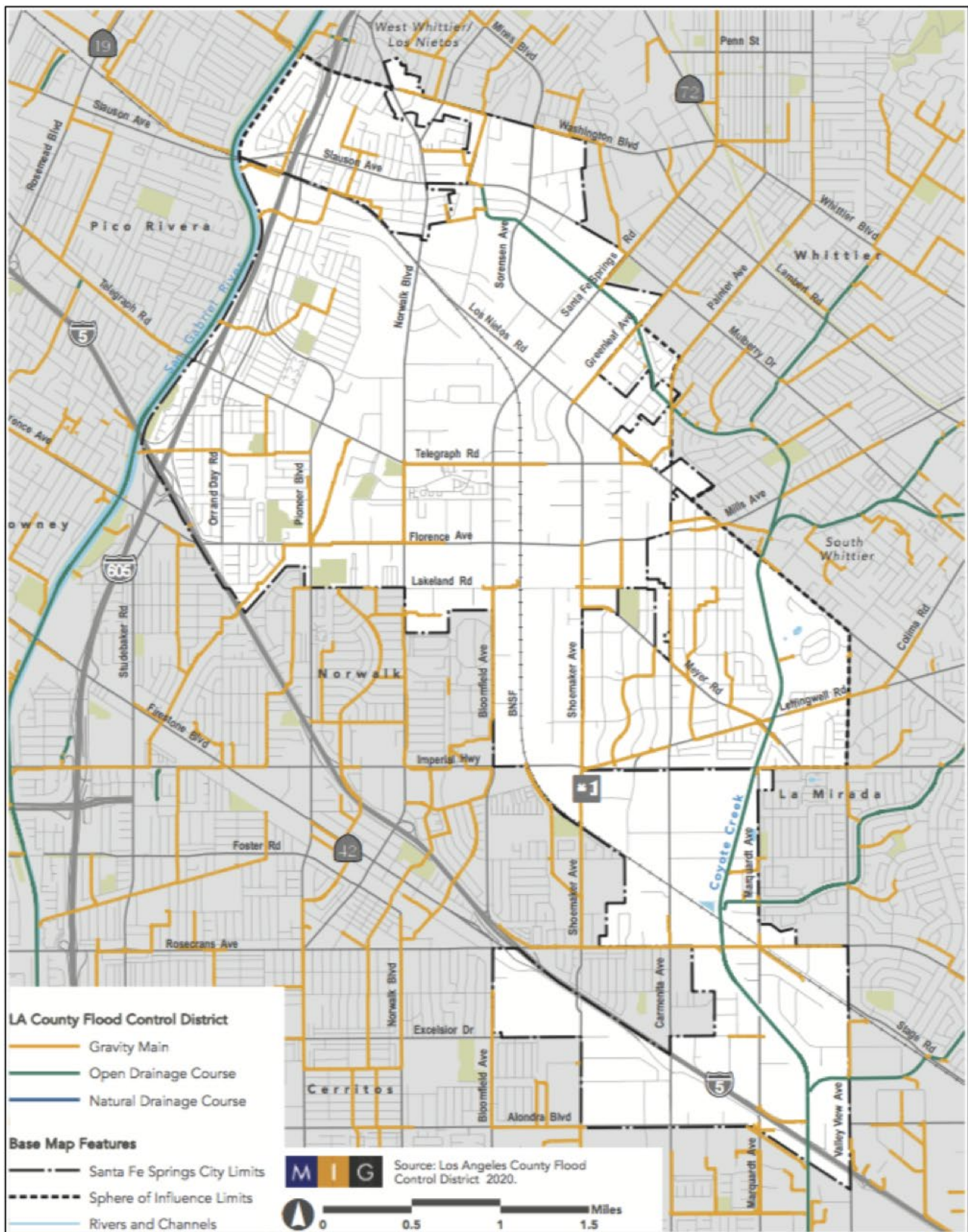
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## Exhibit 4.19-3 Stormwater Facilities

### Santa Fe Springs General Plan and Targeted Zoning Code Update

Santa Fe Springs, California

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High concentrations of impervious surfaces in intensive urban areas, like Santa Fe Springs and surrounding vicinities, have contributed to poor water quality from polluted stormwater runoff. Key sources of contamination include sediment, nutrients, pesticides, metals, oil and grease, and pathogens. The San Gabriel River is impaired by pollutants, including selenium and metals, such as copper, lead, and zinc. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials, such as galvanized steel, that are exposed to rain.

Santa Fe Springs, along with 12 other local cities and the LAFCD, formed the Lower San Gabriel River Watershed Management Group. The group attained a Los Angeles County National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit in 2013 and created a Watershed Management Program in 2015 to implement watershed control measures and reduce discharge of stormwater pollutants. In accordance with the Watershed Management Program, Santa Fe Springs set a final compliance milestone to capture and treat 2.1 acre-feet of stormwater in the Coyote Creek Watershed and 4.9 acre-feet of stormwater in the San Gabriel River Watershed by 2026.

**National Pollutant Discharge Elimination System (NPDES) Compliance.** The National Pollutant Discharge Elimination System (NPDES) permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created in 1972 by the federal Clean Water Act, the NPDES permit program authorizes state governments to perform many permitting, administrative, and enforcement aspects of the program. To comply with the NPDES permit and reduce stormwater pollution, the City has implemented the following measures detailed below as part of their Gateway Proposition 84 Project:

- Plan Review and Implementation of Construction and Post-Construction Water Quality Best Management Practices (BMPs) for Development and Redevelopment;
- Low Impact Development (LID);
- Regenerative Street Sweeping; and
- Participation in the Gateway Region of Los Angeles LID BMP Program (installation of two tree box filters on the eastside of Norwalk Boulevard, south of Hawkins street, and on Shoemaker Avenue, north of Sandoval Street).

**Best Management Practice for Water Pollution.** Best management practices (BMPs) is a term used to describe a type of water pollution control. Stormwater management BMPs are control measures taken to mitigate changes to both quantity and quality of urban runoff caused through changes to land use. Generally, BMPs focus on water quality problems caused by increased impervious surfaces from land development. BMPs are designed to reduce stormwater volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, and filtration or biological and chemical actions. Types of BMPs include infiltration basin, bioretention, constructed wetlands, cistern, bioswales, green roof, and porous pavement. The City is evaluating opportunities to install regional water quality BMPs within the Coyote Creek Watershed, utility corridors, parks, and schools in the City.

### **Solid Waste and Recycling Services**

Solid waste collection, disposal, and recycling services in the Planning Area are provided under contract to the City by CR&R Environmental Services for residential uses and Republic Services and Serv-well Disposal for non-residential uses. These franchise haulers are responsible for collection, transfer/sorting, recycling, and ultimately disposal at Los Angeles County landfill

facilities. A major goal of the City's waste management programs is to reduce the volume of waste dumped in our local landfills and to conserve our natural resources. CR&R services allow local residents to significantly help decrease the amount of trash buried in local landfills and to help the City comply with the state's strict recycling laws. CR&R also allows the City to recycle many types and quantities of recyclable items and yard waste, instead of dumping it in landfills.

The Savage Canyon Landfill is located north of the Planning Area in the Puente Hills. Savage Canyon Landfill is approximately 129 acres and has a maximum permitted capacity of 19,337,450 cubic yards (CY), a maximum permitted daily throughput of 3,350 tons per day, and remaining capacity of 9,510,833 CY. The Savage Canyon Landfill has an estimated closure date of December 31, 2055 (CalRecycle, 2020).

### **Energy Services**

Electrical services to the Planning Area are provided by Southern California Edison (SCE) while natural gas is supplied by the Southern California Gas Company (SCGC).

### **Telecommunications Service**

Telecommunication services are provided by Time Warner, Charter Spectrum, AT&T, Verizon, or other service providers in the area.

## **4.19.2 – REGULATORY FRAMEWORK**

### **Federal**

**Clean Water Act (CWA).** The CWA is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the Federal CWA.

**National Pollution Discharge Elimination System (NPDES).** This is a program created for consistency with the Clean Water Act. The Act prohibits discharging "pollutants" through a "point source" into a "water of the United States" unless they have an NPDES permit. The permit contains limits on what can be discharged, creates monitoring and reporting requirements, and other provisions to ensure the discharge does not diminish water quality and/or people's health.

### **State**

**California Safe Drinking Water Act.** The Safe Drinking Water Act (SDWA), administered by EPA in coordination with the California Department of Public Health (CDPH), is the main Federal law that ensures the quality of drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

**California Department of Resources, Recycling, and Recovery (CalRecycle).** CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and

non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016 (see below).

**Assembly Bill 939 (AB 939) (Public Resources Code 41780).** The California Integrated Waste Management Act Requires cities and counties to prepare integrated waste management plans (IWMPs) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of the IWMP. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

**Senate Bill (SB) 1016.** This requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's IWMP. The CalRecycle Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source reduction and recycling element and hazardous waste element every two years.

**Senate Bills 610 and 221, Water Supply Assessment and Verification.** Senate Bills (SB) 610 and 221 amended State law to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability (water supply assessment or WSA) to be provided to city and county decision-makers prior to approval of specified large development projects (projects greater than 500 dwelling units, or an equivalent water demand). Both statutes require this detailed information to be included in the administrative record. Under SB 610, WSAs must be furnished to local governments for inclusion in the environmental document for certain projects, as defined in Water Code 10912, subject to the California Environmental Quality Act (CEQA). Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. The City's General Plan does not require WSAs but individual future projects within the City that are subject to SB 610 and SB 221 will require WSAs.

**Statewide Water Conservation Act of 2009 (Senate Bill X7-7).** In November 2009, the California State legislature passed, and the Governor approved, a comprehensive package of water legislation, including Senate Bill (SB) X7-7 addressing water conservation. In general SB X7-7 requires a 20 percent reduction in per capita urban water use by 2020, with an interim 10 percent target in 2015. The legislation requires urban water users to develop consistent water use targets and to use those targets in their Urban Water Management Plans (UWMPs). SB X7-7 also requires certain agricultural water supplies to implement a variety of water conservation and management practices and to submit Agricultural Water Management Plans.

**State Water Resources Control Board.** The SWRCB, in coordination with nine Regional Water Quality Control Boards, performs functions related to water quality, including issuance and oversight of wastewater discharge permits (e.g., NPDES), other programs regulating stormwater runoff, and underground and above-ground storage tanks. The SWRCB has also issued statewide waste discharge requirements for sanitary sewer systems, which include requirements for development of a sewer system management plan (SSMP).

**Title 22 of California Code of Regulations.** Title 22 regulates the use of reclaimed wastewater. In most cases, only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping,

and other non-agricultural irrigation. Regulation of reclaimed water is governed by the nine RWQCBs and the California Department of Public Health (CDPH).

**Urban Water Management Planning Act.** In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Section 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet (AF) annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an urban water management plan at least once every five years and submit it to the Department of Water Resources. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24 or Division 26 of the California Water Code, or receive drought assistance from the State, until the urban water management plan (UWMP) is submitted and deemed complete pursuant to the Urban Water Management Planning Act.

### **Regional**

**Los Angeles Basin MS4 Permit.** Municipal separate storm sewer systems (MS4) are issued permits based on the size of the municipality. MS4 permit requirements include reduction of pollutant discharges to the “maximum extent practicable” and protection of water quality. Requirements also include identification of major outfalls and pollutant loads and control of discharges from new development and redevelopment. To address these objectives, municipalities are required to prepare stormwater management plans. Although the NPDES program does not regulate nonpoint sources of pollution, the Los Angeles Basin RWQCB has other programs in place to address nonpoint sources. The MS4 Permit also contains requirements that are necessary to improve efforts to reduce the discharge of pollutants in stormwater runoff to the maximum extent practicable and achieve water quality standards. The stormwater management programs have been guided by the following principles:

- 1) Utilize existing municipal departments/programs to meet Permit requirements whenever possible.
- 2) Minimize duplication of effort through coordinated Permittee compliance actions.
- 3) When necessary, develop new or enhanced stormwater management programs that are both cost-effective and acceptable to the public.

The MS4 permit requires developments and redevelopments to implement Best Management Practices (BMPs) to control pollution in runoff from permitted sites. The BMPs that are required include the following programs:

- Litter, debris and trash control
- Incident response investigation and reporting
- New development and redevelopment
- Private construction activities
- Permittee activities (for sewage, streets and roads, and MS4 facilities)
- Public education and outreach
- Implementation of Total Maximum Daily Loads
- Reporting Requirements and Notifications



**Los Angeles Countywide Integrated Waste Management Plan.** Pursuant to AB939, the County prepared the 1996 Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling. The CIWMP, is comprised of five key elements, the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE) and the Non-Disposal Facility Element (NDFE).

- **Countywide Summary Plan:** The Countywide Summary Plan contains goals and policies, and a summary of issues faced by the County and its cities. The Summary Plan provides steps needed for all cities to do to meet the 50% diversion mandate.
- **Countywide Siting Element:** The Siting Element provides evidence that there is at least 15 years of remaining capacity to hold waste for the County and its cities. If there is not adequate capacity, the Siting Element contains discussion of alternative disposal sites and additional diversion programs.
- **Source Reduction and Recycling Element (SRRE):** The SRRE provides analysis of the local waste stream to determine where to focus diversion efforts.
- **Household Hazardous Waste Element (HHWE):** The HHWE details programs that assist in recycling, treatment and disposal practices for Household Hazardous Waste programs.
- **Non-Disposal Facility Element (NDFE):** The NDFE goal is to identify existing and proposed waste management facilities that would require a solid waste permit to be operationally compliant.

## **Local**

### **2021 General Plan Update**

The GPTZCU contains the following goals and policies related to utilities:

#### *Circulation Element*

#### **Goal C-12: A sustainable and reliable water supply.**

**Policy C-12.1: Adequate Water Supply:** Ensure adequate sources of water supply sufficient to serve existing and future development, and consider long-term climate change impacts to water demand and supply.

**Policy C-12.2: Water Conservation.** Enforce conservation measures that eliminate or penalize wasteful uses of water as a response to drought, climate change, and other threats to adequate water supply.

**Policy C-12.3: Reclaimed Water:** Continue the development of the reclaimed water system to serve landscaped areas and industrial uses when financially feasible.

**Policy C-12.4: Water Rates:** Derive water rates that are fair and equitable to make certain financial sufficiency to fully fund operating and capital costs and meet water reserve requirements.

**Policy C-12.5: Water Quality.** Comply with all applicable water quality standards.

**Policy C-12.6: Water Mains Repair:** Maintain a program to replace leaking water mains and test and replace old water meters as needed.

**Policy C-12.7: Urban Water Management Plan:** Update the Urban Water Management Plan in accordance with the California Urban Water Management Planning Act.



**Policy C-12.8: Water Infrastructure:** Identify and prioritize capital improvements to construct new and replace wells, pumping plants, and reservoirs consistent with applicable master plans.

**Policy C-12.9: Water Conservation:** Promote cost-effective conservation strategies and programs that increase water use efficiency.

**Policy C-12.10: Emergency Water Connections:** Maintain emergency connections with local and regional water suppliers in the event of delivery disruption or natural disaster.

**Goal C-13: A sanitary sewer system with capacity to accommodate future growth.**

**Policy C-13.1: Wastewater Capacity:** Monitor and analyze wastewater systems capacity and determine costs to construct relief wastewater systems as needed.

**Policy C-13.2: Sanitation District Consultation:** Consult with Los Angeles County Sanitation Districts to ensure all trunk sewers are maintained.

**Policy C-13.3: Industrial Waste Inspection:** Maintain an Industrial Waste Inspection and Regulation Program with all costs paid by industrial waste dischargers.

**Policy C-13.4: Unacceptable Waste Discharge.** Prevent unacceptable wastes from being discharged into the wastewater system.

**Policy C-13.5: Wastewater Technology.** Explore new technologies that treat and process wastewater onsite to reduce overall capacity needs of the centralized wastewater system.

**Goal C-14: A sustainable and resilient stormwater system.**

**Policy C-14.1: Green Infrastructure.** Promote green infrastructure projects that capture stormwater for reuse, improved water quality, and reduced flooding risk, including but not limited to permeable pavements, rain gardens, bioswales, vegetative swales, infiltration trenches, green roofs, planter boxes, and rainwater harvesting/rain barrels or cisterns for public and private projects.

**Policy C-14.2: Storm Drain.** Expand and maintain local storm drain facilities to accommodate the needs of existing and planned development and with capacity to withstand more frequent and intense storms and extreme flooding events; prioritize areas that have known drainage capacity issues.

**Policy C-14.3: Storm Drain Pollution.** Implement all appropriate programs and requirements to reduce the amount of pollution entering the storm drain system and waterways.

**Policy C-14.4: Surface Water Infiltration.** Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

**Policy C-14.5: Permeable Surfaces.** Utilize permeable materials and similar approaches to reduce expansive asphalt and impervious surface area, such as parking areas, enforcing low-impact development and best management practices treatment methods, and increasing greenery, and increasing the City's inventory of green spaces.

**Goal C-15: Modernized communication systems that meet the community needs.**

**Policy C-15.1: Wi-Fi at Public Spaces.** Encourage wi-fi connectivity at community facilities, public spaces, and parks to promote and encourage and expand internet access.

**Policy C-15.2: Telecommunications Partnerships.** Partner with service providers to ensure access to a wide range of state-of-the-art telecommunication systems and services for households, businesses, institutions, and public agencies.

**Policy C-15.3: Modernization.** Pursue technological modernization of City operations, equipment, and facilities to improve efficiencies and services, as feasible.

**Policy C-15.4: Broadband.** Expand and modernize broadband and related infrastructure for all areas in the City.

*Open Space and Conservation Element*

**Goal COS-4: Clean Surface Water, Drainages, and Groundwater**

**Policy COS-4.1: Groundwater Supply Remediation:** Work with appropriate agencies and seek funding as appropriate to clean local groundwater to safe conditions.

**Policy COS-4.2: Contaminated Soils.** Coordinate with responsible agencies to avoid threats that contaminated soils pose to groundwater quality.

**Policy COS-4.3: Groundwater Contamination.** Evaluate all proposed non-residential development plans, activities, and uses for their potential to create groundwater contamination hazards from point and non-point sources and confer with other appropriate agencies to assure adequate review.

**Policy COS-4.4: Runoff Pollution Prevention.** Require that new developments incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins.

*Safety Element*

**Goal S-1: A community well-prepared to respond to earthquakes.**

**Policy S-1.7: Infrastructure Resiliency.** Establish City plans and work with utility providers to ensure programs and systems are in place for continued functionality of water, sewer, electric power, natural gas, and communications infrastructure during and after a major earthquake.

**Goal S-2. Protection from Flood and Dam Inundation Hazards**

**Policy S-2.1: Storm Drainage System.** Consult with Los Angeles County Public Works to ensure that existing and future regional storm drain facilities within and adjacent to Santa Fe Springs are designed, operated, and maintained to accommodate projected drainage needs associated with major storm events and climate change effects.

**Policy S-2.2: Localized Ponding Mitigation.** Require developers to address localized ponding, where it may exist, as part of site improvements.

**Policy S-2.3: Dam Inundation.** Consult with appropriate agencies and monitor the upgrade/retrofit of the Whittier Narrows Dam to protect the community against catastrophic damage that could result from a combination of an extreme weather, seismic, and/or climate change event.

**Policy S-2.4: Shelters.** Seek ways to enhance the City's sheltering facilities outside of the potential dam inundation area, including places of worship, schools, and public buildings.

### 4.19.3 – SIGNIFICANCE THRESHOLDS

As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the GPTZCU could result in a significant impact if it would:

- A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- B. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- C. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- D. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- E. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.
- F. Would the project cause substantial adverse cumulative impacts with respect to utilities and service systems.

### 4.19.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to utilities and service systems which could result from the implementation of the GPTZCU and recommends mitigation measures as needed to reduce significant impacts.

#### **New or Expanded Facilities**

***Impact UTIL-1 – Would the GPTZCU require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

#### **Analysis of Impacts**

##### City-wide

The GPTZCU includes the potential for population growth resulting primarily from future residential and mixed-use developments. This growth would require the expansion of existing infrastructure along with the likely development of new facilities related to utility infrastructure. This GPTZCU does not include any specific proposals for new facilities, although new facilities would result from the projected population growth associated with implementation of the plan. All future implementing developments and/or infrastructure projects subject to CEQA would be required to undergo environmental review with respect to their discrete impacts at the time of their proposal.

**Water.** The implementation of the GPTZCU would likely result in both new and expanded water supply and distribution facilities. The City's water supply comes from five different water

purveyors which include both groundwater and imported surface water supplies. The City of Santa Fe Springs Water Utility Authority serves the largest number of City residents.

According to the City's Urban Water Management Plan (UWMP), the City provides water service to an area with a 2015 population of about 14,700. The UWMP also estimated the City was projected to have a population of approximately 18,000 by 2040 (note the actual 2020 population is already estimated at 18,292 persons). The estimated future population for the City's service area was based on projections obtained from the Southern California Association of Governments (SCAG). The SCAG data incorporates demographic trends, existing land use, general plan land use policies, and input and projections from the Department of Finance (DOF) and the US Census Bureau at the time those documents were prepared (circa 2015). The UWMP indicated these population estimates were used to prepare its water consumption estimates (p. 3-5, CSFS 2017).

Table 3-2 in Section 3, Project Description, provides a comparison of existing City characteristics from 2020 and those estimated for 2040. Table 3-2 estimates the City's population will increase to 30,351 by 2040 which is far in excess of that estimated in the 2015 UWMP to adequately supply future growth. In addition, Table 3-2 estimates the total population of the Planning Area will be on the order of 60,808 persons by 2040. Since most of the City's water supply comes from groundwater sources, the growth represented by the proposed GPTZCU exceeds that upon which the UWMP was developed. Therefore, groundwater supply is a potentially significant impact that requires mitigation.

Since the last UWMP update in 2015, southern California's urban water demand has been largely shaped by water conservation efforts to comply with the SBx7-7. This law requires all California retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve a 20 percent water demand reduction (from a historical baseline) by 2020. The City had been actively engaged in efforts to reduce water use in its service area to meet the 2015 interim 10 percent reduction and the 2020 final water use target. Meeting this target is critical to ensure the City's eligibility to receive future state water grants and loans.

In April 2015 Governor Brown issued an Emergency Drought Mandate as a result of one of the most severe droughts in California's history, requiring a collective reduction in statewide urban water use of 25 percent by February 2016, with each agency in the state given a specific reduction target by DWR.

Even with recent water conservation efforts, long-term local groundwater supply is a potentially significant impact that requires mitigation.

In addition to overall groundwater supply, there is also a plume of groundwater contamination of PCE and TCE beneath the region including the City that has significantly affected local groundwater quality (i.e., the City had to cease operation of its potable water wells). Since local wells are not being used for potable water service, this further restricts the amount of readily available local groundwater that can be used by the City.

Future development within the Planning Area under the GPTZCU may also result in increased runoff and pollutant contributions to local groundwater supplies. As stated above, the 1994 General Plan did not contain any specific policies relating to actions to avoid substantially degrading groundwater supply. However, the 1994 General Plan did reference the continuation of several other regulatory/agency mechanisms by which the surface and groundwater are protected by law and policy (See Section 4.10.2). Since 1994, many of these laws and policies have been updated or given additional support to provide more stringent measures to protect

surface and groundwater supplies given the historic droughts that have occurred in California since the last City General Plan.

Future development under the GPTZCU will comply with the following: General Plan goals and policies regarding water supply and quality; state and regional regulatory requirements; the City's development review process; and City Municipal Code requirements. Even with this compliance, long-term local groundwater supply is a potentially significant impact that requires mitigation due to the expected level of growth by 2040.

**Mitigation Measure UTL-1** is recommended to help assure there will be adequate groundwater supplies for future City and Planning Area residents.

#### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may incrementally use additional water supplies and reduce runoff and groundwater recharge, and contribute urban pollutants to local groundwater over both the short- and long-term. However, compliance with General Plan goals and policies regarding water supply and quality and continued adherence to state and regional regulatory requirements, will assure that future development in these sites will not have significant groundwater supply/quality impacts.

#### General Plan Update

The infrastructure portion of the Circulation Element contains Goal C-12 which indicates the City's desire for a sustainable and reliable water supply. Policy C-12.1 emphasizes maintaining an adequate water supply including resilience against climate change conditions. Policies C-12.2 and 12.9 encourage water conservation, while Policy C-12-7 supports updating local UWMPs as needed to accommodate planned growth. Policy C-12-3 focuses on expanding the use of reclaimed water to free up potable supplies, and Policies C-12.6 and 12.8 require the City to maintain and upgrade its water infrastructure as necessary for future growth. Water conservation helps reduce overall water consumption and reduce potential urban contamination that reaches the groundwater.

By helping remediate existing groundwater contamination, the City will help secure its groundwater supply in the future. The Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-4 which strives to achieve clean groundwater supplies. In support of that goal, Policy COS-4.1 focuses on helping clean up the groundwater contamination plume currently beneath the City, while Policies COS-4.2 and COS-4.3 address cleaning up contaminated soils and regulating future land uses to help improve future groundwater quality. Policy COS-4.4 requires that new development incorporate water quality features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events which will also help improve groundwater quality.

Safety Element Goal S-1 and its supporting Policy S-1.7 indicates the City will strive to maintain its utility infrastructure including its water lines.

With implementation of **Mitigation Measure UTL-1** and these General Plan goals and policies, and continued regulatory compliance with state and regional water quality standards, development within the Planning Area under the GPTZCU, including the key opportunity sites, will not result in significant impacts related to groundwater supply.

### **Level of Significance Before Mitigation**

Potentially significant.

### **Mitigation Measures**

**UTL-1 Water Demand Management.** New developments under the GPTZCU that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plans for the involved local water providers.

### **Level of Significance After Mitigation**

Less than significant.

**Wastewater.** The local wastewater collection system is owned and operated by Los Angeles County Sanitation Districts (LACSD) and maintained by Consolidated Sewer Maintenance District (CSMD). The wastewater collection system consists of approximately 84 miles of sewer mains providing wastewater pipelines to homes, businesses, and institutions. Wastewater collected from businesses and residences within the City is treated at LACSD's Los Coyotes Water Reclamation Plant (LCWRP) and Long Beach Water Reclamation Plant (LBWRP); after treatment, the wastewater is recycled for further use or discharged into the San Gabriel River. It is possible that anticipated population growth under the GPTZCU may require incrementally expanded or modified wastewater facilities or treatment processes to adequately meet the demand from anticipated population growth.

#### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may generate an incremental amount of wastewater that must be conveyed and treated. However, compliance with General Plan goals and policies regarding wastewater and the local sewer system, compliance with state and regional regulatory requirements, and compliance with the City's development review process and Municipal Code requirements will assure that future development in these sites will not have significant impacts regarding wastewater treatment or disposal.

#### General Plan Update

The Infrastructure portion of the Circulation Element contains Goal C-13 which indicates the City desires a sewer system that can accommodate future growth. Policy C-13.1 directs the City to monitor and identify costs to provide adequate sewer service in the future. Policy C-13.2 encourages the City to coordinate with the County relative to regional wastewater treatment. Policies C-13.3 and -13.4 focus on industrial wastes and unacceptable waste discharges. Policy C-13.5 calls for the City to explore new technologies that can treat and process wastewater onsite to reduce overall capacity needs of the centralized wastewater system.

Safety Element Goal S-1 and its supporting Policy S-1.7 indicates the City will strive to maintain its utility infrastructure including its sewer lines. Goal S-2 and its policies S-2.1 through S-2.4 strive to protect the City from flooding and inundation from dam collapse.

In addition, the Circulation Element of the GPTZCU contains Goal C-12 and its Policies C-12.2 and 12.9 that encourage water conservation which decreases water demand in the Planning Area and contributes to a wastewater system that supports growth in the future.

Therefore, with continued implementation of fees to fund wastewater infrastructure expansion, the proposed GPTZCU would not directly require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. Impacts to wastewater facilities from new development, including the key opportunity sites, will be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

**Stormwater.** The storm drain system in Santa Fe Springs is maintained by the Los Angeles County Flood Control District (LACFCD), and conveys stormwater through a network of mains and catch basins until it is eventually discharged in the Pacific Ocean via the San Gabriel River and its tributaries, such as Coyote Creek. Development within the Planning Area would result in an increase in impermeable surfaces leading to the potential for increased stormwater runoff.

The GPTZCU does not include any specific development or project that would substantially alter existing drainage patterns in the Planning Area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces. However, future development will be assessed at a site-specific project-level when proposed. Any future projects within the Planning Area under the GPTZCU would be required to adhere to local, state, and federal law and policy (See Section 4.10.2) regulating impacts to streams, rivers, and drainage patterns through the area that may also lead to the increase in impervious surfaces. Any impacts would be required to be analyzed in subsequent project-level CEQA documentation, wherein any potentially significant impacts would be required to be mitigated to less than significant level.

The Planning Area is characteristically flat and highly developed and non-developed areas include City parks, school fields, and landscaping around buildings. There is no significant anticipated risk of erosion resulting from steep slopes or from wind and rain in areas of exposed soils within the Planning Area. Future development resulting from implementation of the GPTZCU has the potential to expose surficial soils and, as a result, local soils may be subject to erosion or loss of topsoil during development as a result of the GPTZCU. Development may also increase downstream runoff by increasing impervious surfaces on specific sites.

The Regional Water Quality Control Board (RWQCB) regulates the discharge of storm water from municipalities and activities within their jurisdiction including construction. The City is a signatory of the Los Angeles County Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharge. The requirements include guidance and regulations for construction related erosion control, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for projects which would disturb one or more acres. The requirements also include appropriate best management practices (BMPs) that should be included to help prevent substantial soil erosion or the loss of topsoil.

In addition, the City's development review process examines potential increases in runoff from development sites and requires post-development runoff to not exceed pre-development levels through project design such as the use of detention basins. With these protections potential impacts are less than significant and no mitigation is required.

### Key Opportunity Sites

Similar to the rest of the City, the four opportunity sites are flat and subject to the same state and regional water quality regulations including prevention of increased downstream runoff. Through the City's development review process development on these four sites will comply with the various requirements regarding erosion and flood control. Impacts would be less than significant.

### General Plan Update

The Infrastructure section of the Circulation Element contains Goal C-14 which addresses the local storm drain system. Policies C-14.1 through C-14.5 all focus on different aspects of maintaining and improving the local storm drain system to achieve adequate capacity and minimize surface and groundwater quality impacts, including using the most current best management practices (BMPs) and storm water control project designs to minimize runoff.

In addition, the Open Space and Conservation Element of the proposed GPTZCU contains Goal COS-4 and Policy COS-4.4 which requires new development to incorporate design features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

Safety Element Goal S-1 and its supporting Policy S-1.7 indicates the City will strive to maintain its utility infrastructure including its storm drain lines. Goal S-2 and its policies S-2.1 through S-2.4 strive to protect the City from flooding and inundation from dam collapse.

In addition, the City's Municipal Code, Chapter 154.17 ensures the City will review all project plans and impose conditions as required to maintain adequate storm drain capacity and to safeguard water quality and erosion control prior to the issuance of either a building permit or grading plan approval. The City's development review process will evaluate proposed development against established BMPs and other water quality-related guidelines, many of which are designed to control runoff and erosion.

With implementation of this General Plan goal and policy, continued regulatory compliance with state and regional water quality standards, and guidelines for erosion control in the Municipal Code, development within the Planning Area under the GPTZCU, including the key opportunity sites, will not result in significant impacts related to the local storm drain system.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

**Electric Power, Natural Gas and Telecommunications.** There are no plans at present to relocate or expand electric power, natural gas, and telecommunication facilities within the City. However, implementation of the GPTZCU would lead to demand-driven expansion of facilities and, subsequently, the possibility of physical environmental impacts covered under CEQA. These projects would be subject to environmental review at the time of proposal. These facilities are provided by private organizations and the infrastructure would be covered by service fees.

The GPTZCU contains Safety Element Goal S-1 and its supporting Policy S-1.7 which indicates the City will strive to maintain its utility infrastructure including its electric, natural gas, and communications lines during and after a major earthquake. Goal S-2 and its policies S-2.1



through S.2-4 strive to protect the City from flooding and inundation from dam collapse. Any impacts from new development, including the key opportunity sites, will be less than significant.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

None required.

#### **Water Supplies**

***Impact UTIL-2 – Would there be sufficient water supplies available to serve reasonably foreseeable future development in the Planning Area during normal, dry and multiple dry years?***

#### **Analysis of Impacts**

##### City-wide

The availability of water supplies is discussed in Impact UTL-1. The implementation of the GPTZCU would likely result in both new and expanded water supply and distribution facilities. The City's water supply comes from five different water purveyors which include both groundwater and imported surface water supplies. The City of Santa Fe Springs Water Utility Authority serves the largest number of City residents.

According to the City's Urban Water Management Plan (UWMP), the City provides water service to an area with a 2015 population of about 14,700. The UWMP also estimated the City was projected to have a population of approximately 18,000 by 2040 (note the actual 2020 population is already estimated at 18,292 persons). The estimated future population for the City's service area was based on projections obtained from the Southern California Association of Governments (SCAG). The SCAG data incorporates demographic trends, existing land use, general plan land use policies, and input and projections from the Department of Finance (DOF) and the US Census Bureau at the time those documents were prepared (circa 2015). The UWMP indicated these population estimates were used to prepare its water consumption estimates (p. 3-5, CSFS 2017).

Table 3-2 in Section 3, Project Description, provides a comparison of existing City characteristics from 2020 and those estimated for 2040. Table 3-2 estimates the City's population will increase to 30,351 by 2040 which is far in excess of that estimated in the UWMP to adequately supply future growth. In addition, Table 3-2 estimates the total population of the Planning Area will be on the order of 60,808 persons by 2040. Since most of the City's water supply comes from groundwater sources, the growth represented by the proposed GPTZCU exceeds that upon which the UWMP was developed. Therefore, groundwater supply is a potentially significant impact that requires mitigation.

Since the last UWMP update in 2015, Southern California's urban water demand has been largely shaped by water conservation efforts to comply with the SBx7-7. This law requires all California retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve a 20 percent water demand reduction (from a historical baseline) by 2020. The City has been actively engaged in efforts to reduce water use in its service area to meet the 2015 interim 10 percent reduction and the 2020 final water use target. Meeting this target is critical to ensure the City's eligibility to receive future state water grants

and loans. Even with recent water conservation efforts, long-term local groundwater supply is a potentially significant impact that requires mitigation.

In addition to overall groundwater supply, there is also a plume of groundwater contamination of PCE and TCE beneath the City that has significantly affected groundwater quality (i.e., the City had to cease operation of its potable water wells). Since local wells are not being used for potable water service, this further restricts the amount of readily available local groundwater that can be used by the City.

Future development within the Planning Area under the GPTZCU may also result in increased runoff and pollutant contributions to local groundwater supplies. The 1994 General Plan did not contain any specific policies relating to actions to avoid substantially degrading groundwater supply. However, the 1994 General Plan did reference the continuation of several other regulatory/agency mechanisms by which the surface and groundwater are protected by law and policy (See Section 4.10.2). Since 1994, many of these laws and policies have been updated or given additional support to provide more stringent measures to protect surface and groundwater supplies given the historic droughts that have occurred in California since the last City General Plan in 1993. One of the most specific regarding groundwater, is the Sustainable Groundwater Management Act signed into law in 2014.

Future development under the GPTZCU will comply with the following: General Plan goals and policies regarding water supply and quality; state and regional regulatory requirements; the City's development review process; and City Municipal Code requirements. Even with this compliance, long-term local groundwater supply is a potentially significant impact that requires mitigation.

**Mitigation Measure UTL-1** is recommended to help assure there will be adequate groundwater supplies for future City and Planning Area residents.

#### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may incrementally use additional water supplies and reduce runoff and groundwater recharge, and contribute urban pollutants to local groundwater over both the short- and long-term. However, compliance with General Plan goals and policies regarding water supply and quality, compliance with state and regional regulatory requirements, compliance with the City's development review process and Municipal Code requirements, and implementation of Mitigation Measure UTL-1 will assure that future development on these sites will not have significant impacts regarding groundwater supplies or quality.

#### General Plan Update

The Infrastructure portion of the Circulation Element contains Goal C-12 which indicates the City desires a sustainable and reliable water supply. Policy C-12.1 emphasizes maintaining an adequate water supply including resilience against climate change conditions. Policies C-12.2 and 12.9 encourage water conservation, while Policy C-12-7 supports updating local UWMPs as needed to accommodate planned growth. Policy C-12-3 focuses on expanding the use of reclaimed water to free up potable supplies, and Policies C-12.6 and 12.8 require the City to maintain and upgrade its water infrastructure as necessary for future growth. Water conservation helps reduce overall water consumption and reduce potential urban contamination that reaches the groundwater.

By helping remediate existing groundwater contamination, the City will help secure its groundwater supply in the future. The Open Space and Conservation Element of the proposed

GPTZCU contains Goal COS-4 which strives to achieve clean groundwater supplies. In support of that goal, Policy COS-4.1 focuses on helping clean up the groundwater contamination plume currently beneath the City, while Policies COS-4.2 and COS-4.3 address cleaning up contaminated soils and regulating future land uses to help improve future groundwater quality. Policy OSC-6.4 requires that new development incorporate water quality features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events which will also help improve groundwater quality.

Safety Element Goal S-1 and its supporting Policy S-1.7 indicates the City will strive to maintain its utility infrastructure including its water lines. Goal S-2 and its policies S-2.1 through S-2.4 strive to protect the City from flooding and inundation from dam collapse.

With implementation of **Mitigation Measure UTL-1**, the new General Plan goals and policies, and continued regulatory compliance with state and regional water quality standards, development within the Planning Area under the GPTZCU, including the key opportunity sites, will not result in significant impacts related to groundwater supply.

#### **Level of Significance Before Mitigation**

Potentially significant.

#### **Mitigation Measures**

**UTL-1 Water Demand Management.** New developments under the GPTZCU that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plans for the involved local water providers.

#### **Level of Significance After Mitigation**

Less than significant.

#### **Wastewater Treatment**

***Impact UTIL-3 – Would the GPTZCU result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

#### **Analysis of Impacts**

##### City-wide

As mentioned in Impact UTIL-1 above, anticipated population growth under the GPTZCU would be substantial and may require expanded wastewater facilities to meet the demand from anticipated population growth. The local wastewater collection system is owned and operated by Los Angeles County Sanitation Districts (LACSD) and maintained by Consolidated Sewer Maintenance District (CSMD). The wastewater collection system consists of approximately 84 miles of sewer mains providing wastewater pipelines to homes, businesses, and institutions. Wastewater collected from businesses and residences within the City is treated at LACSD's Los Coyotes Water Reclamation Plant (LCWRP) and Long Beach Water Reclamation Plant (LBWRP); after treatment, the wastewater is recycled for further use or discharged into the San Gabriel River. It is possible that anticipated population growth under the GPTZCU may require incrementally expanded or modified wastewater facilities or treatment processes to adequately meet the demand from anticipated population growth.

### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may generate an incremental amount of wastewater that must be conveyed and treated. However, compliance with General Plan goals and policies regarding wastewater and the local sewer system, compliance with state and regional regulatory requirements, and compliance with the City's development review process and Municipal Code requirements will assure that future development on these sites will not have significant impacts regarding wastewater treatment or disposal.

### General Plan Update

The Infrastructure portion of the Circulation Element contains Goal C-13 which indicates the City desires a sewer system that can accommodate future growth. Policy C-13.1 directs the City to monitor and identify costs to provide adequate sewer service in the future. Policy C-13.2 encourages the City to coordinate with the County relative to regional wastewater treatment. Policies C-13.3 and C-13.4 focus on industrial wastes and unacceptable waste discharges. Policy C-13.5 suggests the City explore new technologies that can treat and process wastewater onsite to reduce overall capacity needs of the centralized wastewater system.

Safety Element Goal S-1 and its supporting Policy S-1.7 indicates the City will strive to maintain its utility infrastructure including its sewer lines. Goal S-2 and its policies S-2.1 through S-2.4 strive to protect the City from flooding and inundation from dam collapse.

In addition, the Circulation Element of the GPTZCU contains Goal C-12 and its Policies C-12.2 and C-12.9 that encourage water conservation which decreases water demand in the Planning Area and contributes to a wastewater system that supports growth in the future.

Therefore, with continued payment of fees to fund wastewater infrastructure expansion, the proposed GPTZCU would not directly require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. Impacts to wastewater facilities from new development, including the key opportunity sites, will be less than significant.

### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **Solid Waste**

***Impact UTIL-4 – Would the GPTZCU generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

### **Analysis of Impacts**

#### City-wide

By 2040, development within the Planning Area is estimated to result in an increase of approximately 4,572 dwelling units and 13,890 residents during the 20-year period. As the City grows, so will its need for solid waste services. Under the GPTZCU, the Planning Area is

expected to accommodate more residential, commercial, mixed use, industrial, public uses, and open space/recreation land uses. In order to estimate solid waste generation under the GPTZCU, per-capita waste generation rates for the City were used (pounds per day per resident).

It is estimated the additional 13,890 residents would generate an additional 138,900 pounds or 69.5 tons of inorganic waste per day in 2040 based on an average rate of 10 pounds per person per day for residential uses (CIWMB 2020). This estimate does not take into account recent organic waste mandates or the additional businesses, employees, or students in the Planning Area by 2040. This additional amount of inorganic solid waste (65.9 tons) represents 2 percent of the Savage Canyon Landfill's maximum permitted daily throughput of 3,350 tons per day (CalRecycle 2020). It should be noted the City has a Material Recycling Facility (MRF) and a transfer station within its boundaries.

#### Key Opportunity Sites

Similar to city-wide conditions, future development of the four opportunity sites may generate an incremental amount of solid waste which must be conveyed and disposed of at a local landfill. However, compliance with General Plan goals and policies regarding solid waste reduction and recycling, compliance with state and regional regulatory requirements, and compliance with the City's development review process and Municipal Code requirements will assure that future development on these sites will not have significant impacts regarding solid waste conveyance or disposal.

#### General Plan Update

The GPTZCU has no specific goals or policies related to solid waste management. However, the City must comply with a variety of state and regional laws and regulations regarding solid waste recycling and must coordinate with Los Angeles County regarding solid waste disposal. Compliance with these laws and regulations help control the amount of waste produced within the Planning Area over the life of the GPTZCU and reduce potential impacts to less than significant levels.

#### **Level of Significance Before Mitigation**

Less than significant.

#### **Mitigation Measures**

No mitigation is required.

#### ***Impact UTIL-5 – Would the GPTZCU comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

#### **Analysis of Impacts**

Any future project completed under the proposed GPTZCU would be required to comply with all applicable Federal, State, and Local statutes and regulations related to solid waste management and reduction. The City will continue to comply with established laws and regulations regarding solid waste minimization and recycling. Therefore, the proposed GPTZCU will not interfere with the City's compliance with federal, state, and local management and reduction statutes and regulations related to solid waste. This includes any future development on the four key opportunity sites as well.

The GPTZCU does not contain any goals or policies that specifically address solid waste management. However, the City must comply with a variety of state and regional laws and regulations regarding solid waste recycling and minimization (e.g., AB 939).

**Level of Significance Before Mitigation:**

Less than significant.

**Mitigation Measures**

No mitigation is required.

**Cumulative Impacts**

***Impact UTIL-6 – Would the GPTZCU cause substantial adverse cumulative impacts with respect to utilities and service systems?***

**Analysis of Impacts**

Development that results from the proposed GPTZCU, in combination with other cumulative development in neighboring areas would increase the demand for utilities. Utilities can be potentially impacted by increased population, especially when new facilities are not built to meet population increases or when existing facilities are not adequately maintained. Alternatively, impacts may also occur when new facilities are built, resulting in physical impacts to existing resources. Overall, the GPTZCU accounts for both these scenarios. The GPTZCU includes policies to mitigate potential negative environmental impacts. Additionally, new facilities are subject to both the provisions of the GPTZCU and compliance with CEQA, when required. Environmental review would identify site-specific conditions and physical changes resulting from utility services expansion. Typical impacts associated with new facilities include short-term construction activities related to air quality pollutant emissions, temporary traffic detours, changes in traffic distribution, and noise.

It was determined that water supply may not be adequate for the full implementation of the GPTZCU in the future but implementation of Mitigation Measure UTL-1 reduced the potential impact to a less than significant level.

The growth projections of the proposed GPTZCU are different than those of the 1994 General Plan, and it is possible the increases in projected housing and population and changes in non-residential development may have adverse impacts on water demand but are not expected to have significant impacts on sewer/wastewater, storm drainage, energy, telecommunications, or solid waste infrastructure and service providers in the region. All of the local jurisdictions within the surrounding region have goals and policies similar to the City of Santa Fe Springs regarding the maintenance and, when necessary, the expansion of utility systems to accommodate growth.

Once the GPTZCU is adopted, its growth projections will be incorporated as appropriate into the various master plans of the agencies and companies providing utility services to the City. In addition, the City will implement Mitigation Measure UTL-1 to help limit future water demand on local water serving agencies. Therefore, the proposed GPTZCU will not have cumulative impacts on regional utility services.

**Level of Significance Before Mitigation**

Less than significant (except for water supply).

### **Mitigation Measures**

With the inclusion of **Mitigation Measure UTL-1**, any regional cumulative impacts related to water supply would be reduced to less than significant levels.

### **Level of Significance After Mitigation**

Less than significant.

### **4.19.5 – REFERENCES**

California Department of Resources Recycling and Recovery (CalRecycle). 2021. Solid Waste Facilities, Sites, and Operations. California Integrated Waste Management Board (CIWMB) Web: <https://www.calrecycle.ca.gov/SWFacilities/>. [Website accessed June 2021].

California Water Boards (Water Board), 2020. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. [website accessed April 2021]  
[https://www.waterboards.ca.gov/losangeles/water\\_issues/programs/basin\\_plan/basin\\_plan\\_documentation.html](https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html).

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United States Environmental Protection Agency (USEPA), 2020. Section 10 of the Rivers and Harbors Appropriation Act of 1899. Available at: <https://www.epa.gov/cwa-404/section-10-rivers-and-harbors-appropriation-act-1899>. Accessed December 2020.

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## **4.20 – Wildfire**

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This section describes the potential for wildfire on lands located in or near State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zones by the California Department of Forestry and Fire Protection (CAL FIRE). In addition, it discusses potential impacts of the proposed General Plan and Targeted Zoning Code Update (GPTZCU) on wildfire hazards, including: emergency response/evacuation, project exacerbation of wildfire risks, exposure to pollutant concentrations from a wildfire; exacerbation of fire risk from infrastructure improvements, to significant risks of runoff, post-fire slope instability, or drainage changes.

### **4.20.1 – ENVIRONMENTAL SETTING**

#### **Climate**

The Planning Area is located between the Los Angeles Basin to the south and the San Gabriel Valley to the north and maintains a Mediterranean climate characterized by hot summers and mild winters. Los Angeles County and the broader Los Angeles Basin are defined by a semi-arid, Mediterranean climate with mild winters and warm summers. The various mountains that bound the Basin, and regular temperature inversions, trap ambient air and pollutants within the Basin. The climate of the Los Angeles region is classified as Mediterranean, but weather conditions within the basin are dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This pattern is occasionally interrupted by extremely hot temperatures during the summer, Santa Ana winds during the fall, and storms from the Pacific Northwest during the winter. In addition to the basin's topography and geographic location, El Niño and La Niña patterns also have large effects on weather and rainfall received between November and March.

The City's average temperatures range from a high of 89.7 degrees Fahrenheit (°F) in August to a low of 47.2 degrees °F in December. Annual precipitation is approximately 14.33 inches, falling mostly from December through March (WRCC, 2020). The Planning Area is relatively flat with elevations ranging from 60 feet above mean sea level (AMSL) in the southern portion of the Planning Area to 170 feet AMSL in the northern portion of the Planning Area.

#### **Wind Patterns**

The Pacific high-pressure system drives the prevailing winds in the basin. The winds tend to blow onshore in the daytime and offshore at night. High winds can cause property damage and pose health risks, especially during the fire season. In addition to the typical regional wind patterns in the region, Santa Ana winds represent a particularly strong, dry wind hazard. Santa Ana winds are katabatic meaning they develop as winds descend through mountain passes where they accelerate, dry out, and heat up. This occurs in the Planning Area which is located between the Los Angeles Basin to the south and the San Gabriel Valley to the north. This area experiences strong Santa Ana winds due to its topography and location relative to the San Gabriel Mountains to the north and the San Bernardino Mountains to the east.



## **Fire Hazards Severity Zones**

There are no Very High Fire Hazard Severity Zones in the City, as identified by the California Department of Forestry and Fire Protection (CAL FIRE), therefore, there are no wildfire hazards in the City (Santa Fe Springs, 2020).

## **State Responsibility Areas**

State Responsibility Areas (SRA) designate those areas where CAL FIRE has responsibility for wildland fire protection. SRAs do not include lands that are within City boundaries or within federally owned lands. SRAs are present in the Puente Hills approximately four miles northeast of the Planning Area.

### **4.20.2 – REGULATORY FRAMEWORK**

#### **State**

**California Fire Code.** The City has adopted the most current California Fire Code issued by the California Building Standards Commission with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains.

#### **Local**

##### **2021 General Plan Update**

The Planning Area is fully urbanized and does not contain any Very High Fire Hazard Severity Zones or State Responsibility Areas, hence there are no wildfire risks. However, the Safety Element of the proposed GPTZCU does contain the following goals and policies related to its urban fire protection activities.

**Goal S-6: A community working together to avoid injury and loss of life resulting from a large disaster.**

**Policy S-6.1: Community Emergency Response and Preparedness.** Support active participation by residents and businesses through volunteer programs focused on emergency preparedness and response and recovery from an emergency event, including specialized programs to address special needs and vulnerable populations.

**Policy S-6.2: Emergency Preparedness Plans.** Regularly review and update emergency preparedness and operation plans to create up-to-date disaster management systems. Include in the plans evacuation planning approaches that respond to a multitude of emergency conditions and locations.

**Goal S-7: A fire department skilled at responding effectively to the needs of the community.**

**Policy S-7.1: Adequate Fire Suppression Resources.** Ensure that the City has adequate Fire Department resources to meet response time standards, keep pace with growth, and provide a high level of service.

**Policy S-7.2: Fire Stations Modernization.** Evaluate the need to replace, upgrade, and/or modernize existing fire stations.

**Policy S-7.3: Fire Technology.** Continue to seek technological and information system

advances which will enhance the efficiency and effectiveness of the Fire Department.

**Policy S-7.4: Inter-Agency Coordination.** Seek the highest levels of intra-city and inter-agency coordination of fire scene operations.

**Policy S-7.5: Urban Fire Enforcement.** Enforce fire standards and regulations in the review of building plans and conduct of building inspections.

**Policy S-7.6: Fire Suppression Systems.** Regulate and enforce the installation of fire protection water system standards for new construction projects, including the installation of fire hydrants providing adequate fire flow, fire sprinklers, and suppression systems.

**Policy S-7.7: Fire Prevention Services.** Provide effective fire prevention services through the review of proposed development projects, evaluation of industrial operations and facilities, examination of the transport of hazardous materials, and identification of oil and gas pipeline networks.

**Policy S-7.8: Highest Standardization Rating.** Maintain the highest possible International Organization for Standardization (ISO) rating for the City's Fire Department.

#### 4.20.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of CEQA, the General Plan Update has the potential to result in significant impacts if the following thresholds are exceeded.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the GPTZCU:

- A. Substantially impair an adopted emergency response plan or emergency evacuation plan.
- B. Due to slope, prevailing winds and other factors exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- C. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- D. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.
- E. Cause substantial adverse cumulative impacts with respect to wildfire.

#### 4.20.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to wildfires which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

## **Emergency Response Plans**

### ***Impact Wil-1 – Would the GPTZCU substantially impair an adopted emergency response plan or emergency evacuation plan?***

#### **Analysis of Impacts**

##### City-wide

The Planning Area is fully urbanized and does not contain any Very High Fire Hazard Severity Zones or State Responsibility Areas, hence there are no wildfire risks. However, the following information is relative to urban fires within the City and adopted emergency response plans and emergency evacuations.

As shown in the Los Angeles County Department of Public Works Disaster Route Maps, several major public streets serve as principal evacuation routes in the City including: Washington Boulevard, Norwalk Boulevard, Telegraph Road, Florence Avenue, Imperial Highway, Carmenita Road, and Interstate I-5 -the Santa Ana Freeway. (Los Angeles County Department of Public Works, 2008). These principal access ways are all well-maintained and capable of supporting an evacuation function. In any disaster warranting evacuation, the exact emergency routes used would depend on a number of variables, including the type, scope, and location of the incident.

##### Key Opportunity Areas

The four opportunity sites are converting largely industrial land uses or vacant land (MC&C site) to mixed-use or residential uses which would generally reduce potential safety concerns regarding hazards and hazardous conditions relative to emergency response plans.

The Washington/Norwalk site has direct local and regional access from Washington Boulevard, Norwalk Boulevard, and Broadway. The Metrolink site has direct access from Imperial Highway and Bloomfield Avenue. The MC&C site has direct access from Bloomfield Avenue and Telegraph Road. The Koontz site has direct access from Florence Avenue and Norwalk Boulevard. All four opportunity sites have direct local and regional access so development of these sites will not have significant impacts on emergency evacuation plans and routes.

##### General Plan Update

Safety Element Goal S-6 encourages the entire community to work together to avoid injury, death, or building damage from large disasters. In addition, Policies S-6.1 and 6.2 support residents and businesses becoming active in planning for and recovering from major disasters.

While it is possible that there may be temporary and limited circulation changes required during discrete periods of time associated with specific construction projects, these changes would be temporary and would be of a nature that would still allow evacuation in the event of an emergency. Emergency access would be maintained to all properties during construction. Therefore, development under the GPTZCU, including the four key opportunity areas, will have no impacts in this regard.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

None required.

## Prevailing winds

***Impact Wil-2 – Would the GPTZCU result in impacts due to slope, prevailing winds, and other factors, exacerbating wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

## Analysis of Impacts

### City-wide

The Planning Area is fully urbanized and does not contain any Very High Fire Hazard Severity Zones or State Responsibility Areas, hence there are no wildfire risks. Since there are no significant slopes, strong prevailing winds, or other factors that could cause or exacerbate wildfire risks, it is unlikely the GPTZCU would expose Planning Area residents to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

### Key Opportunity Sites

The four opportunity sites are converting largely industrial land uses or vacant land (MC&C site) to mixed-use or residential uses which may be subject to potential urban fires but would not be subject to wildfires. Therefore, there are no impacts relative to prevailing winds and increased pollutant exposure.

### General Plan Update

There are no General Plan goals or policies related to wildfires as the Planning Area is only subject to urban fires. Development under the GPTZCU will have no impacts relative to prevailing winds and increased pollutant exposure, including the four key opportunity areas.

## Level of Significance Before Mitigation

No impact.

## Mitigation Measures

None required.

## Maintenance of Infrastructure

***Impact Wil-3 – Would the GPTZCU require the installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water resources, powerlines, or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

## Analysis of Impacts

### City-wide

The Planning Area is fully urbanized and does not contain any Very High Fire Hazard Severity Zones or State Responsibility Areas, hence there are no wildfire risks. New urban development in the Planning Area as a result of the GPTZCU will not require the installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water resources, powerlines, or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Therefore, there are no impacts in this regard.

#### Key Opportunity Sites

The four opportunity sites are converting largely industrial land uses or vacant land (MC&C site) to mixed-use or residential uses which may be subject to potential urban fires but would not be subject to wildfires. Therefore, there are no impacts relative to prevailing winds and increased pollutant exposure.

#### General Plan Update

There are no General Plan goals or policies related to wildfires as the Planning Area is only subject to urban fires. Since there are no significant slopes, strong prevailing winds, or other factors that could cause or exacerbate wildfire risks, it is unlikely the GPTZCU would expose Planning Area residents to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. There would be no impacts, including for the four key opportunity areas.

#### **Level of Significance Before Mitigation**

No impact.

#### **Mitigation Measures**

None required.

#### **Expose People or Structures to Risk**

***Impact Wil-4 – Would the GPTZCU expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

#### **Analysis of Impacts**

##### City-wide

The Planning Area is fully urbanized and does not contain any Very High Fire Hazard Severity Zones or State Responsibility Areas, hence there are no wildfire risks. Since there are no significant slopes or large areas with unchannelized runoff within the Planning Area, strong prevailing winds, or other factors that could cause or exacerbate slope instability or drainage constraints under post-fire conditions.

#### Key Opportunity Sites

The four opportunity sites are converting largely industrial land uses or vacant land (MC&C site) to mixed-use or residential uses which may be subject to potential urban fires but would not be subject to wildfires. Therefore, there are no impacts relative to downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

#### General Plan Update

There are no General Plan goals or policies related to wildfires as the Planning Area is only subject to urban fires. Development under the GPTZCU have no impacts relative to downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

#### **Level of Significance Before Mitigation**

No impact.

### **Mitigation Measures**

None required.

### **Cumulative Impacts**

***Impact Wil-5 - Would the GPTZCU cause substantial adverse cumulative impacts with respect to wildfires?***

#### **Analysis of Impacts**

Based on the analysis in Impact Wil-1 through Wil-4, the proposed GPTZCU could not have a cumulative impact on the ability of local agencies to protect residents, workers and structures from wildfires (i.e., the City is only subject to urban fires). Development within the Planning Area under the GPTZCU could increase the population and/or activities and ignition sources within urban areas which in turn may increase the number of people and structures exposed to risk of loss, injury, or death from (urban) fires.

The region surrounding the Planning Area is also heavily urbanized and does not face any area-wide threats from wildfires, although as previously stated the City and surrounding areas do face threats from urban fires.

Due to the level of urban development and lack of natural slopes with native vegetation, the proposed GPTZCU would not make a significant contribution to any cumulatively considerable wildfire impacts in the surrounding region.

#### **Level of Significance Before Mitigation**

Less than significant.

### **Mitigation Measures**

None required.

### **4.20.5 – REFERENCES**

California State Geoportal. California Fire Hazard Severity Zone Viewer. Web: <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. [Accessed October 2020].

Western Regional Climate Center (WRCC). 2020. Cooperative Climatological Data Summaries: Whittier. Web: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9660>. [Accessed October 2020].

City of Santa Fe Springs. *City of Santa Fe Springs Existing Conditions Technical Report 2040 General Plan*. Prepared by MIG. August 2020.

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## 5.0 – Alternatives To The Proposed General Plan And Targeted Zoning Code Update

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Section 15126.6 of the CEQA Guidelines requires an EIR to *"describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."* The section also states that *"the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the project objectives, or would be more costly."*

Pursuant to Section 15126.6, this chapter describes three alternatives to the General Plan and Targeted Zoning Code Update (Project), including the CEQA-mandated No Project Alternative, and compares the impacts of each alternative to the Project. The ability of each alternative to meet the basic project objectives is also described, and the "environmentally superior" alternative among the three is identified, as required by the CEQA Guidelines.

### 5.1 – RATIONALE FOR ALTERNATIVE SELECTION

In accordance with CEQA Guidelines Section 15126.6(a), an EIR does not need to evaluate every conceivable alternative. A feasible range of alternatives has been evaluated that will allow decision-makers to make a reasoned choice that meets most of the project objectives. The project objectives included in Chapter 3, Project Description, are:

1. **Healthy and Safe Neighborhoods.** Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. **Economic Strength and Local Businesses.** Strengthen the City's industrial and office sectors while increasing and diversifying commercial businesses.
3. **Diversified Economy.** Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
4. **Downtown.** Strive for a downtown that showcases our rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
5. **Active and Diverse Transportation.** Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
6. **Environmental Justice and Community Safety.** Improve environmental conditions, noise conditions, and air and water quality for all residents and people working in the City by minimizing the impacts of industrial businesses, truck and commuter traffic, and contaminated lands.



7. **Clean and Sustainable Environment.** Insist upon remediation of contaminated land and take steps to prevent pollution from the different processes involved in industrial business operations. Improve local air quality and make rational use of natural resources to support environmental responsibility and the collective health of residents, employees, and visitors.
8. **Equitable and Inclusionary.** Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Our residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
9. **Adaptive and Resilient Community.** Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.
10. **Technology.** Embrace technology and innovative practices where digital technology and intelligent design can be harnessed to create smart, sustainable cities and adaptable infrastructure systems.

In addition, although not directly included in the formal General Plan Update objectives, one of the objectives of the GPTZCU Project is to accommodate, within the framework of the City's General Plan, the State-mandated Regional Housing Needs Allocation (RHNA) goal for the City, which is a total of 952 dwelling units. Therefore, for each alternative, the extent to which the RHNA would be achieved (referred to as the "RHNA Objective") was also analyzed.

While selecting alternatives to be considered for analysis, the City focused on analyzing those alternatives which could potentially reduce the significant unavoidable effects related to the Project and which would also achieve project objectives.

## 5.2 – ALTERNATIVES CONSIDERED

The following alternatives have been evaluated in comparison to the General Plan and Targeted Zoning Code Update (Project):

- Alternative 1: No Project/Existing General Plan
- Alternative 2: Reduced Mixed-Use Alternative
- Alternative 3: Reduced Residential Alternative

In accordance with CEQA Guidelines Section 15126.6(d), the discussion of impacts associated with the alternatives is less detailed than the evaluation included in Chapters 4.1 through 4.20 of the impacts associated with implementation of the Project. Table 5-1 shows the development assumptions of each alternative. Table 5-2 shows how impacts associated with the implementation of the alternatives compare to the impacts associated with implementation of the Project; the reader is advised to refer to the accompanying text for a fuller explanation.

**Table 5-1**  
**Land Use Alternatives Development Assumptions**

Planning Area Land Uses	Existing 2020 Conditions	Net Change 2040			
		Proposed GPTZCU	Alternatives		
			1. No Project Existing General Plan <sup>(a)</sup>	2. Reduced (-25%) Mixed-Use Alternative	3. Reduced (-50%) Residential Alternative
Residential (units)	12,152	16,724	12,638	15,581	14,438
Population (persons)	46,918	60,808	48,795	57,336	53,863
Non-Residential Building <sup>(b)</sup>	78.1 MSF	79.6 MSF	81.2 MSF	79.2 MSF	79.6 MSF
Employees	56,070	60,858	58,313	59,661	60,858
Source: Table 3-2, DEIR Project Description, MIG, 2021 MSF = million square feet (rounded off)					
(a) Source: Extrapolated +4% from existing conditions based on current vacant land and existing GP land uses					
(b) Includes commercial, hotel/motel, industrial, and public facilities/institutional land uses					

**Table 5-2**  
**Alternatives' Impacts Compared to Project Impacts**

Impact/Resource	Alternative 1: No Project Existing General Plan	Alternative 2: Reduced (-25%) Mixed-Use Alternative	Alternative 3: Reduced (-50%) Residential Alternative
<b>Air Quality</b>	<b>Similar SU</b>	<b>Reduced SU</b>	<b>Similar SU</b>
<b>Biological Resources</b>	Similar LTS	Similar LTS	Similar LTS
<b>Cultural Resources</b>	Similar LTS	Similar LTS	Similar LTS
<b>Energy</b>	Similar LTS	Reduced LTS	Similar LTS
<b>Geology and Soils</b>	Similar LTS	Similar LTS	Similar LTS
<b>Greenhouse Gas Emissions</b>	<b>Similar SU</b>	<b>Reduced SU</b>	<b>Similar SU</b>
<b>Hazards and Hazardous Materials</b>	Similar LTS	Similar LTS	Similar LTS
<b>Hydrology and Water Quality</b>	Similar LTS	Similar LTS	Similar LTS
<b>Land Use</b>	Similar LTS	Similar LTS	Similar LTS
<b>Noise</b>	Similar LTS	Reduced LTS	Reduced LTS
<b>Population and Housing</b>	Reduced LTS	Reduced LTS	Similar LTS
<b>Public Services</b>	Similar LTS	Reduced LTS	Similar LTS
<b>Recreation</b>	Reduced LTS	Reduced LTS	Similar LTS
<b>Transportation (VMT)</b>	<b>Similar SU</b>	<b>Reduced SU</b>	<b>Similar SU</b>
<b>Tribal Cultural Resources</b>	Similar LTS	Similar LTS	Similar LTS
<b>Utilities and Service Systems</b>	Similar LTS	Reduced LTS	Similar LTS
Source: MIG, 2021			
LTS= Less Than Significant Impact			
SU= Significant and Unavoidable Impact			

## **5.3 – ALTERNATIVE 1: NO PROJECT/EXISTING 2008 GENERAL PLAN**

### **5.3.1 – Principal Characteristics**

The No Project/Existing General Plan Alternative (No Project Alternative) assumes that development would occur within the Planning Area, but only development anticipated under the 1994 General Plan. Development assumptions for this alternative are shown in Table 5.-1. For this alternative, it is assumed there would be a significant reduction in residential development and a significant increase in non-residential development when compared to the Project. Additionally, no new policies, goals, or development standards associated with the Project would be implemented; the standards, goals, and policies associated with the 1994 General Plan would be applicable. This alternative would not meet the City's current Regional Housing Needs Allocation (RHNA) allocation.

### **5.3.2 – Analysis of No Project/Existing General Plan Alternative**

The potential impacts associated with the No Project Alternative are described below.

a. *Air Quality.* The Project would result in significant unavoidable air quality impacts. While this alternative would result in a reduction in the amount of residential development compared to the Project, there would still be some additional housing units plus a significant increase in non-residential development compared to the Project. This alternative would likely not be consistent with SCAG forecasts for the City as population and housing growth exceeds the 2020-2045 RTP/SCS population and employment projections for the City (See Chapter 4.11); as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP) and would also exceed SCAQMD regional pollutant thresholds and thereby obstruct implementation of the AQMP. While no specific air quality modeling was undertaken for the alternative, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. The significant air quality impacts associated with the Project would be similar under this alternative.

b. *Biological Resources.* The Planning Area is completely urbanized and almost entirely built out with few vacant properties located throughout the City. As with the Project, development under this alternative would occur within urban areas that currently have existing development. Similar to the Project, this alternative would have a less-than-significant impact on biological resources.

c. *Cultural Resources.* As with the Project, development under the No Project Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, under the No Project Alternative, the City's development requirements would include a CEQA evaluation to analyze potential impacts to historic resources, which may include mitigation measures to reduce potential impacts of future development within the Planning Area. Additionally, existing goals, policies and implementation programs within the Conservation Element ensure that significant archaeological resources are preserved and protected. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

d. *Energy.* As with the Project, development associated with the No Project Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. While this alternative does have a reduced level of residential development when compared to the Project, it does include an increase in non-residential development, which would consume energy. Similar to the Project, under this alternative new development and land use turnover would be required to comply with statewide mandatory energy requirements

outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. This alternative would have similar less-than-significant energy impacts compared to the Project.

*e. Geology and Soils.* The same geology and soils policies and regulations would be applicable to the No Project Alternative as to the Project, as the revisions to the Safety Element do not include changes to goals or policies related to geologic or seismic hazards. In addition, both the alternative and the Project would be exposed to the same existing geologic conditions within the Planning Area. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All General Plan policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The No Project Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

*f. Greenhouse Gas Emissions.* The Project would result in significant unavoidable greenhouse gas (GHG) emissions impacts. This alternative would result in a reduction in residential development but a significant increase in non-residential development compared to the Project. It is likely that mitigation measures identified for the Project would also be required for this alternative. While no specific GHG modeling was undertaken for the alternative, it is likely that the No Project Alternative would result in similar significant GHG impacts associated with the Project.

*g. Hazards and Hazardous Materials.* Hazardous materials would be present during construction and operation of development associated with the No Project Alternative. The amount and use of these hazardous materials present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review, which would include identification of any contaminated sites not already identified and implementation of appropriate cleanup and disposal procedures. The No Project Alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

*h. Hydrology and Water Quality.* Development associated with implementation of the No Project Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and housing increase that would be less than the Project; however, the mitigation measure regarding water supply (UTL-1) would still be required under this alternative. The No Project Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

*i. Land Use and Planning.* As with the Project, the No Project Alternative would not physically divide an established community. Development would be consistent with the adopted 1994 General Plan, and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use and planning impact.

*j. Noise.* The Project would result in less than significant noise impacts. While the No Project Alternative would result in significantly less residential development than the Project, it would result in a significant increase in non-residential development. While no specific noise modeling was undertaken for this alternative, it would still likely result in a less than significant roadway noise impact similar to the Project.

*k. Population and Housing.* This alternative would result in less residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing compared to the Project.

*l. Public Services.* This alternative would result in a reduced amount of residential development and population growth, which would result in decrease in demand for schools services and park facilities when compared to the Project. While the No Project Alternative would result in reduced residential growth, there would be a significant increase in non-residential uses, which could potentially increase the demand for fire and police services compared to the Project. Overall, the No Project Alternative would likely result in similar less-than-significant public services impacts compared to the Project.

*m. Recreation.* This alternative would result in a reduced amount of residential development and population growth, which would result in reduced demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

*n. Transportation.* This alternative would result in less residential development than would occur with implementation of the Project. With the reduction in residential development associated with this alternative, it is possible that vehicle miles traveled impacts associated within new residences under this alternative would also be reduced. However, this alternative does include a significant increase in the amount of non-residential development. While no transportation modeling was undertaken for this alternative, a significant and unavoidable transportation impact would likely occur. The transportation impacts associated with this alternative would likely require similar mitigation measures as the Project and would still be considered significant and unavoidable.

*o. Tribal Cultural Resources.* As with the Project, development under the No Project Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on Tribal Cultural Resources with adherence to existing regulations.

*p. Utilities and Service Systems.* This alternative would result in a reduced amount of residential development growth, but an increase in non-residential development within the Planning Area. While this alternative assumes a population and housing increase that would be less than the Project, the mitigation measure regarding water supply (UTL-1) would still be required under this alternative. This alternative would have a similar less-than-significant utilities and service system impact when compared to the Project.

### **Attainment of Project Objectives**

The No Project Alternative assumes that development would occur within the Planning Area, but only development anticipated under the existing General Plan. The No Project Alternative would meet some of the Project objectives but not nearly to the degree as the proposed GPTZCU. However, this alternative would **not** meet the RHNA allocation of accommodating 952 dwelling units.

## 5.4 – ALTERNATIVE 2: REDUCED MIXED-USE ALTERNATIVE

### 5.4.1 – Principal Characteristics

The Reduced Mixed-Use Alternative reflects a reduced number of residential units and a reduced amount of non-residential development (both approximately 25 percent less) compared to those expected under the proposed GPTZCU. Development assumptions for this alternative are shown in Table 5-1. This alternative assumes that policies, goals, or development standards associated with the Project would apply to this alternative. This alternative would meet the City's current Regional Housing Needs Allocation (RHNA) goals.

### 5.4.2 – Analysis of the Reduced Mixed-Use Alternative

The potential impacts associated with the Reduced Mixed-Use Alternative are described below.

*a. Air Quality.* The Project would result in significant unavoidable air quality impacts. While this alternative would result in a reduction in the amount of residential development compared to the Project, it would likely not be consistent with SCAG forecasts for Santa Fe Springs as it exceeds the 2020 RTP/SCS population projections for the City; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP) and would also exceed SCAQMD regional pollutant thresholds and thereby obstruct implementation of the AQMP. While no specific air quality modeling was undertaken for the alternative, it is likely that emissions would be reduced under this alternative but that the air quality mitigation measures needed for the Project would also be required for this alternative. It is likely that air quality emission would be reduced under this alternative, but that the alternative would result in reduced significant air quality impacts compared to the Project.

*b. Biological Resources.* The Planning area is completely urbanized and almost entirely built out with few vacant properties located throughout the City. As with the Project, development under this alternative would occur within urban areas that currently have existing development. Similar to the Project, this alternative would have a less-than-significant impact on biological resources.

*c. Cultural Resources.* Development under the Reduced Mixed-Use Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, under the Reduced Mixed Use Alternative the City's development requirements would include a CEQA evaluation to evaluate potential impacts to historic resources, which may include mitigation measures to reduce potential impacts of future development within the Planning Area. Additionally, existing goals, policies and implementation programs within the Conservation Element ensure that significant archaeological resources are preserved and protected. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

*d. Energy.* As with the Project, development associated with the Reduced Mixed-Use Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. However, given the reduced amount of development associated with this alternative, this alternative would result in reduced energy consumption compared to the Project. Similar to the Project, under this alternative new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. This alternative would have a reduced less-than-significant energy impact compared to the Project.

e. *Geology and Soils.* Both this alternative and the Project would be exposed to the same existing geologic conditions within the Planning area, and the same geology and soils policies and regulations would be applicable to both the Project and the alternative. As with the Project, existing building requirements would be applicable under this alternative and all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All General Plan policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The Reduced Mixed-Use Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

f. *Greenhouse Gas Emissions.* The Project would result in significant unavoidable greenhouse gas (GHG) emissions impacts. This alternative would result in a reduction in residential development and associated reduction in GHG emissions, but it is likely that mitigation measures identified for the Project would also be required for this alternative. While no specific GHG modeling was undertaken for the alternative, it is likely that the Reduced Mixed-Use Alternative would result in reduced significant GHG impacts compared to the Project.

g. *Hazards and Hazardous Materials.* Hazardous materials would be present during construction and operation of development associated with the Reduced Mixed-Use Alternative. The amount and use of these hazardous materials present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under the Reduced Mixed Use Alternative would be subject to the City's standard environmental review process, which would include identification of any contaminated sites not already identified and implementation of appropriate cleanup and disposal procedures. The Reduced Mixed-Use Alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

h. *Hydrology and Water Quality.* Development associated with implementation of the Reduced Mixed-Use Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and housing increase that would be less than the Project; however, the mitigation measure regarding water supply (UTL-1) would still be required under this alternative. The Reduced Mixed-Use Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

i. *Land Use and Planning.* As with the Project, the Reduced Mixed-Use Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use and planning impact.

j. *Noise.* The Project would result in less than significant noise impacts. The Reduced Mixed-Use Alternative would result in an approximately 25 percent reduction in units that are expected to be located along major corridors, where mixed-use development would be anticipated. Under this alternative, measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. While no specific noise modeling was undertaken for the alternative, it is possible that the reduced vehicle trips associated with this alternative would have a reduced roadway noise impact compared to the Project.

k. *Population and Housing.* This alternative would result in less residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant population and housing impact compared to the Project.

*l. Public Services.* This alternative would result in a reduced amount of residential development and population growth, which would result in decrease in demand for public services. The Reduced Mixed-Use Alternative would result in a reduced less-than-significant public services impact compared to the Project.

*m. Recreation.* This alternative would result in a reduced amount of residential development and population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

*n. Transportation.* This alternative would result in less residential development than would occur with implementation of the Project. Given the reduction in development associated with this alternative, it is possible that vehicle miles traveled impacts under this alternative would also be reduced. As with the Project, the uncertainty related to future fuel prices and future legislative policy could dramatically influence VMT production in the City. While no transportation modeling was undertaken for this alternative, a reduced significant and unavoidable transportation impact would likely occur under this alternative. The transportation impacts associated with this alternative would likely require similar mitigation measures as the Project and would still be considered significant and unavoidable, although the impact would be reduced when compared to the Project due to the lesser amount of development.

*o. Tribal Cultural Resources.* As with the Project, development under the Reduced Mixed-Use Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on Tribal Cultural Resources with adherence to existing regulations.

*p. Utilities and Service Systems.* This alternative would result in a reduced amount of residential development within the Planning Area. While this alternative assumes a population and housing increase that would be less than the Project, the mitigation measure regarding water supply (UTIL-1) would still be required under this alternative. Given the reduced amount of development associated with the Reduced Mixed-Use Alternative, it would result in a reduced less-than-significant utilities and service system impact when compared to the Project.

### **Attainment of Project Objectives**

The Reduced Mixed-Use Alternative would meet most of the project objectives but not to the same degree as the proposed GPTZCU, but it would meet the RHNA Objective of accommodating 952 additional dwelling units.



## 5.5 – ALTERNATIVE 3: REDUCED RESIDENTIAL ALTERNATIVE

### 5.5.1 – Principal Characteristics

The Reduced Residential Alternative assumes that the total number of dwelling units under this alternative would be 50 percent less than the increase expected under the proposed GPTZCU. This alternative assumes the same amount of non-residential development as the proposed GPTZCU. This alternative assumes that policies, goals, or development standards associated with the Project would apply to this alternative. This alternative would also meet the current City's Regional Housing Needs Allocation (RHNA) goals.

### 5.5.2 – Analysis of the Reduced Residential Alternative

The potential impacts associated with the Reduced Residential Alternative are described below.

*a. Air Quality.* The Project would result in significant unavoidable air quality impacts. Even though this alternative has half of the overall amount of residential development compared to the Project, it would likely not be consistent with SCAG forecasts in the 2020 RTP/SCS population projections for the City; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP) and would also exceed SCAQMD regional pollutant thresholds and thereby obstruct implementation of the AQMP. While no specific air quality modeling was undertaken for the alternative, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. It is likely that the significant air quality impacts associated with the Project would be similar under this alternative.

*b. Biological Resources.* The Planning area is completely urbanized and almost entirely built out with few vacant properties located throughout the City. As with the Project, development under this alternative would occur within urban areas that currently have existing development. Similar to the Project, this alternative would have a less-than-significant impact on biological resources.

*c. Cultural Resources.* As with the Project, development under this alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, under the alternative, the City's development requirements would include a CEQA evaluation to evaluate potential impacts to historic resources, which may include mitigation measures to reduce potential impacts of future development within the Planning Area. Additionally, existing goals, policies and implementation programs within the Conservation Element ensure that significant archaeological resources are preserved and protected. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

*d. Energy.* As with the Project, development associated with the Reduced Residential Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Similar to the Project, under this alternative new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. This alternative would have similar less-than-significant energy impacts as the Project.

*e. Geology and Soils.* Both the alternative and the Project would be exposed to the same existing geologic conditions within the Planning Area, and the same geology and soils policies and regulations would be applicable to both the Project and the alternative. As with the Project,

existing building requirements would be applicable under this alternative and all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All General Plan policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The Reduced Residential Alternative would have a less-than-significant geology impact, and impacts would be similar to the Project.

*f. Greenhouse Gas Emissions.* The Project would result in significant unavoidable greenhouse gas (GHG) emissions impacts. This alternative would result in roughly half as much new housing development as the Project. It is likely that mitigation measures identified for the Project would also be required for this alternative. While no specific GHG modeling was undertaken for the alternative, it is likely that the Reduced Residential Alternative would result in reduced but still significant GHG impacts compared to the Project.

*g. Hazards and Hazardous Materials.* Hazardous materials would be present during construction and operation of development associated with the Reduced Residential Alternative. The amount and use of these materials present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review process, which would include identification of any contaminated sites not already identified and implementation of appropriate cleanup and disposal procedures. The Reduced Residential Alternative would have a less-than-significant hazards and hazardous materials impact, and would have impacts similar to the Project.

*h. Hydrology and Water Quality.* Development associated with implementation of the Reduced Residential Alternative would be subject to all existing water quality regulations and programs. The mitigation measure regarding water supply would still be required under this alternative. The Reduced Residential Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

*i. Land Use and Planning.* As with the Project, the Reduced Residential Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use and planning impact.

*j. Noise.* The Reduced Residential Alternative would result in half as much new housing within the City. Under this alternative, measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. While no specific roadway noise modeling was undertaken for the alternative, this alternative may have slightly less impacts although, similar to the project, noise impacts would be less than significant.

*k. Population and Housing.* This alternative would result in about half the number of residential units and new population growth compared to the Project. This alternative would reduce but still result in a similar less-than-significant impacts related to population and housing compared to the Project.

*l. Public Services.* This alternative would result in about half as many new housing units and similar reduction in population growth as the Project. This alternative would result in a similar less-than-significant public services impact compared to the Project.

*m. Recreation.* This alternative would result in substantially less housing development as the Project. This alternative would result in a similar but reduced less-than-significant recreation impact compared to the Project, due to the smaller number of homes that would be constructed.

*n. Transportation.* This alternative would result in half the number of new housing compared to implementation of the Project. Although there would be less residential development, there would be more office, commercial and industrial uses. As with the Project, the uncertainty related to future fuel prices and future legislative policy could dramatically influence VMT production in the City. While no transportation modeling was undertaken for this alternative, a significant and unavoidable transportation impact would likely occur under this alternative. The transportation impacts associated with this alternative would likely require similar mitigation measures as the Project and would still be considered significant and unavoidable.

*o. Tribal Cultural Resources.* As with the Project, development under the Reduced Residential Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on Tribal Cultural Resources with adherence to existing regulations.

*p. Utilities and Service Systems.* This alternative would result in half the amount of new housing development within the Planning Area as the Project, although there would be a similar amount of non-residential development. The mitigation measure regarding water supply would still be required under this alternative. This alternative would have a similar less-than-significant utilities and service system impact when compared to the Project.

#### **Attainment of Project Objectives**

The Reduced Residential Alternative would meet most of the project objectives but not to the same degree as the proposed GPTZCU, and it would still meet the RHNA Objective of accommodating development of the City's 952 dwelling unit RHNA allocation.

### **5.6 - ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

None of the alternatives would eliminate or reduce any of the significant impacts of the GPTZCU to less than significant levels. However, Alternative 2, the Reduced Mixed Use Alternative would reduce potential impacts to the greatest degree and would therefore be the "environmentally superior alternative." This conclusion is based on the comparative impact conclusions in Tables 5-1 and 5-2 and the analysis within this chapter. In addition, this alternative would meet the City's Regional Housing Needs Allocation goals.

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## **6.0 – CEQA-Mandated Sections**

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### **6.1 – CUMULATIVE IMPACTS**

Section 15130(a) of the CEQA Guidelines requires that the EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." The CEQA Guidelines (Section 15355) define "cumulative impacts" as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

The analyses of quantitative cumulative impacts in this EIR are based on the "summary of projections" method, as authorized by section 15130(b)(1)(B) of the CEQA Guidelines.

The proposed GPTZCU is itself a cumulative project because it would be implemented across the entire Planning Area incrementally and cumulatively over approximately 20 years (the horizon year is 2040 but the life of the plan could extend beyond 2040). This Program EIR evaluates the GPTZCU as one "project" in accordance with CEQA. All potentially significant cumulative impacts are addressed in each of the impact topical areas (Air Quality, Land Use and Planning, etc.) in Chapters 4.1 through 4.20 of this EIR.

### **6.2 – GROWTH-INDUCING EFFECTS**

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss "...the ways in which the proposed GPTZCU could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

The proposed General Plan and Targeted Zoning Code Update (GPTZCU) have a planning horizon year of 2040. It is estimated that growth under the GPTZCU will result in increases of approximately 4,572 dwelling units, 364,000 square feet of office space, 383,500 square feet of industrial space, and a reduction of 80,000 square feet of commercial space. An estimated increase of approximately 13,890 residents and 4,788 jobs are also projected by the 2040 horizon year. However, no unplanned, substantial, detrimental, growth-inducing effect is expected because the General Plan is the City's overall guide to growth and development in the future.

The goals, policies and implementing actions, contained in the proposed GPTZCU address the potentially negative aspects of growth, and have been designed to facilitate development efficiently and effectively in an area where roads and infrastructure already exist. The more compact urban form envisioned by the GPTZCU is expected to improve the livability in the Planning Area by improving walking and bicycling opportunities, increasing economic vitality and job opportunities, and reducing vehicle-miles-traveled (VMT). The potential growth-related impacts associated with the GPTZCU have also been evaluated in the topical Chapters of this EIR (Air Quality, Biological Resources, etc.) and, as appropriate, mitigation measures have been applied to address such impacts. In addition, implementation of the proposed GPTZCU would not involve the extension of roads, major sewer or water lines, or the construction of other major infrastructure facilities that would induce growth in areas adjoining the Planning Area.

## 6.3 – SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." The impacts listed below are identified as significant and unavoidable for one of four reasons: 1) no potentially feasible mitigation has been identified; 2) potential mitigation has been identified but may be found by the Lead Agency to be infeasible; 3) with implementation of feasible mitigation, the impact still would not, or might not, be reduced to a less-than-significant level; or 4) implementation of the mitigation measure would require approval of another jurisdictional agency, whose approval will be pursued by the Lead Agency but cannot be guaranteed as of the publication of this EIR. Because these significant unavoidable impacts "cannot be alleviated without imposing an alternative design" (CEQA Guidelines Section 15126.2[b]), Chapter 6 (Alternatives to the Proposed General Plan Update) of this EIR evaluates a range of feasible alternatives that could lessen the identified significant unavoidable impacts, and evaluates for each alternative the ability to meet the Project objectives.

The following impacts have been identified in this EIR as significant and unavoidable:

### Section 4.3 Air Quality

- Impact AIR-1: Conflict with or obstruct implementation of applicable air quality plans because it would exceed the growth assumption of the South Coast Air Quality Management Plan (AQMP), and exceed SCAQMD's regional threshold for the criteria pollutant listed under Impact AIR-2 below, thereby impeding AQMP attainment.
- Impact AIR-2: Result in a cumulatively considerable net increase of non-attainment criteria pollutants for which the project region is in non-attainment. The GPTZCU would exceed the SCAQMD regional operational thresholds for NO<sub>x</sub>, ROG's, CO, SO<sub>2</sub> and PM<sub>10</sub>, and construction thresholds for ROG, NO<sub>x</sub> and PM<sub>10</sub>.
- Impact AIR-3: Expose sensitive receptors to substantial pollutant concentrations.
- Impact AIR-5: Cause adverse substantial adverse cumulative impacts with respect to air quality (Cumulative Impact).

### Section 4.8, Greenhouse Gas Emissions

- Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Impact GHG-2: Conflict with the growth assumptions of the SCAG 2020-2045 RTP/SCS.
- Impact GHG-3: Cause a substantial adverse cumulative impact with respect to greenhouse gas emissions (Cumulative Impact).

### Section 4.17, Transportation

- Impact TRANS-2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), related to Vehicle Miles Travelled (VMT).
- Impact TRANS-5: Cause substantial adverse cumulative impacts with respect to transportation and traffic.

The implications of each significant unavoidable impact identified above are described in the particular EIR chapter referenced with the impact. The GPTZCU is being proposed, notwithstanding these effects, to fully achieve the Project objectives described in Chapter 3.0 of this EIR. If the City approves the updated General Plan (or an alternative to the proposed GPTZCU) that would result in significant unavoidable impacts, the City must adopt a "Statement of Overriding Considerations" per CEQA Guidelines Section 15093 describing why the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the approved Plan outweigh its significant unavoidable impacts.

#### **6.4 – SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

CEQA Guidelines Section 15126.2(c) requires that the EIR discuss "significant irreversible environmental changes which would be caused by the proposed GPTZCU should it be implemented." Since nearly all of the Planning Area is developed and the GPTZCU will not significantly change the circulation pattern or make other major changes to major infrastructure facilities, there would not be any significant irreversible physical changes caused by the GPTZCU. The proposed GPTZCU would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and vehicles, and the use of these same resources during long-term operation of individual projects facilitated by the Plan. Because development facilitated by the proposed GPTZCU would be required by law to comply with California Code of Regulations Title 24 (including updates over time) and adopted City energy conservation ordinances and regulations, Plan implementation would not be expected to use energy in a wasteful, inefficient, or unnecessary manner.

The consumption or destruction of other non-renewable or slowly renewable resources would also result during construction, occupancy, and use of individual development sites under the proposed GPTZCU. These resources would include, but would not be limited to, lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. GPTZCU implementation would also irreversibly use water and solid waste landfill resources. However, development under the proposed GPTZCU would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering ongoing City conservation and recycling programs.

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## **7.0 – Preparation Team**

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### ***7.1 Lead Agency***

City of Santa Fe Springs  
11710 Telegraph Road  
Santa Fe Springs, CA 90670  
(562) 868-0511

Wayne Morrell, Director of Planning and Community Development  
Cuong Nguyen, Assistant Director of Planning and Community Development  
Jack Wong, Planning Consultant  
Laura Reimer, Contract Planner

### ***7.2 Consultants to the Lead Agency***

#### ***Environmental Analysis***

**Moore-Iacofano-Goltsman, Inc.**  
537 S. Raymond Avenue  
Pasadena, California 91105  
626-744-9872

Laura Stetson, Principal  
Jose Rodriguez, Project Manager (General Plan and EIR)  
Bob Prasse, Director of Environmental Services  
Chris Dugan, Director of Air Quality, Greenhouse Gases and Noise Services  
Kent Norton, Senior Project Manager  
Phillip Gleason, Senior Environmental Analyst  
Cameron Hile, Senior Analyst

#### **Transportation**

**Fehr & Peers, Inc.**  
600 Wilshire Boulevard, Suite 1050  
Los Angeles, CA 90017  
213-261-3050

Fatemeh Ranaiefar, PhD, Senior Associate  
Josh Steiner, Senior Transportation Planner



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## Appendix A: NOP and NOP Comment Letters

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## NOTICE OF PREPARATION

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**DATE:** May 10, 2021

**TO:** Responsible Agencies, Trustee Agencies, and Interested Parties

**LEAD AGENCY:** City of Santa Fe Springs  
Contact: Cuong Nguyen  
11710 East Telegraph Road  
Santa Fe Springs, California 90670

**SUBJECT:** Notice of Preparation of a Draft Environmental Impact Report for the City of Santa Fe Springs General Plan Update

### **NOTICE OF PREPARATION REVIEW PERIOD:** May 17 to June 15, 2021

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The City of Santa Fe Springs (City) will be the Lead Agency and will prepare a Draft Environmental Impact Report (DEIR) pursuant to the California Environmental Quality Act (CEQA) for the proposed General Plan Update (GPU) (Project).<sup>1</sup> We are interested in your agency's views as to the appropriate scope and content of the DEIR's environmental information pertaining to your agency's statutory responsibilities related to the Project. We will need the name of a contact person for your agency. For interested individuals, we would like to be informed of environmental topics related to the Project that may be of interest to you.

The City has already determined that an EIR is required for the proposed GPU and as permitted by CEQA Guidelines Section 15060(d) (Preliminary Review), the City will not prepare an Initial Study for the Project.

The proposed Project, its location, and its potential environmental effects are described below. The City welcomes public input during the Notice of Preparation (NOP) review period. Due to the time limits mandated by the CEQA Guidelines, your response must be sent no later than 30 days after your receipt of this notice. If no response or request for additional time is received by the end of the review period, the City will presume that you have no response.

Please send your comments to:

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<sup>1</sup> Per Title 14, California Code of Regulations, California Environmental Quality Act (CEQA) Guidelines, Sections 15082(a), 15103, and 15375

Cuong Nguyen, Senior Planner  
City of Santa Fe Springs Planning Department  
11710 East Telegraph Road  
Santa Fe Springs, California 90670  
(562) 868-0511  
[CuongNguyen@santafesprings.org](mailto:CuongNguyen@santafesprings.org)

To allow for mailing, receipt, and 30-day review of this NOP, the comment period closes on June 15, 2021.

  
Cuong Nguyen, Senior Planner

  
Date

### Scoping Meeting:

Pursuant to CEQA Guidelines Section 15082(c) (Notice of Preparation and Determination of Scope of EIR), the City will conduct a scoping meeting for the purpose of soliciting comments of adjacent cities, responsible agencies, trustee agencies, and interested parties requesting notice as to the appropriate scope and content of the Draft EIR.

The purpose of the meeting is to present the Project and environmental topics in a public setting and provide an opportunity for the City to hear from the community and interested agencies on what potential environmental issues are important to them. The meeting will include a brief presentation of the proposed Project, the EIR process, and the topics to be analyzed in the EIR. Following the presentation, interested agencies, organizations, and members of the public will be encouraged to offer their views concerning what environmental issues should be included in the DEIR.

The Public Scoping Meeting will be held on the following date/time either virtually via Zoom or at the following location:

Wednesday June, 9, 2021 at 5:00 PM  
Santa Fe Springs City Council Chambers  
11710 East Telegraph Road  
Santa Fe Springs, California 90670  
(562) 868-0511

- **Written Comments:** Email to: [CuongNguyen@santafesprings.org](mailto:CuongNguyen@santafesprings.org); Or Mail to: Cuong Nguyen, 11710 East Telegraph Road, Santa Fe Springs, California 90670
- **Remote Viewing:** Available at: <https://zoom.us/j/91255114328>.  
Meeting ID: 912 5511 4328
- **Project Information:** Project information is also available on the City's website at: [https://www.santafesprings.org/cityhall/planning/planning/environmental\\_documents.asp](https://www.santafesprings.org/cityhall/planning/planning/environmental_documents.asp)



**Project Title:** City of Santa Fe Springs General Plan Update

**Project Applicant:** City of Santa Fe Springs, Planning Department

**Project Location:**

The Planning Area is in southeast Los Angeles County approximately 12 miles southeast of downtown Los Angeles. The City is bordered by the unincorporated community of West Whittier-Los Nietos and the cities of Pico Rivera and Whittier to the north; the Cities of Downey and Norwalk to the west; the unincorporated community of South Whittier and the City of La Mirada to the east; and the City of Cerritos to the south. The regional context of Santa Fe Springs is shown in Exhibit 1 (Regional Context Map). Exhibit 2 (Planning Area) provides a more detailed view of the Planning Area, including City boundaries and Sphere of Influence areas.

**Project Description:**

The comprehensive update of the Santa Fe Springs General Plan serves as the blueprint for the City's future growth and development. As such, the General Plan must contain goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. The General Plan Update establishes the following objectives for the long-term growth and enhancement of the community:

1. **Healthy and Safe Neighborhoods.** Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. **Economic Strength and Local Businesses.** Strengthen the City's industrial and office sectors while increasing and diversifying commercial businesses.
3. **Diversified Economy.** Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
4. **Downtown.** Strive for a downtown that showcases our rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
5. **Active and Diverse Transportation.** Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
6. **Environmental Justice and Community Safety.** Improve environmental conditions, noise conditions, and air and water quality for all residents and people working in the City by minimizing the impacts of industrial businesses, truck and commuter traffic, and contaminated lands.
7. **Clean and Sustainable Environment.** Insist upon remediation of contaminated land and take steps to prevent pollution from the different processes involved in industrial business operations. Improve local air quality and make rational use of natural resources to support environmental responsibility and the collective health of residents, employees, and visitors.

8. **Equitable and Inclusionary.** Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Our residents in disadvantaged communities should have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
9. **Adaptive and Resilient Community.** Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.
10. **Technology.** Embrace technology and innovative practices where digital technology and intelligent design can be harnessed to create smart, sustainable cities and adaptable infrastructure systems.

The City of Santa Fe Springs General Plan Update (GPU) is a comprehensive revision to the General Plan adopted in 1993 and 1994 (the Housing Element was last updated in 2013) and includes several new elements. The GPU incorporates statutory requirements for general plans and guidance provided in the 2017 General Plan Guidelines; coordinates future development and policies with regional planning efforts and serves as the City's fundamental guide in developing strategies to address greenhouse gas reduction, climate adaptation, and resiliency planning. The EIR incorporates each of the goals, policies, and implementation measures of the following chapters in the adopted General Plan:

- Land Use Element
- Circulation Element
- Housing Element (2021-2029)
- Open Space and Conservation Element
- Noise Element
- Safety Element
- Environmental Justice Element
- Economic Development Element

These goals, policies, and implementation measures are intended to maintain various potential environmental effects of the project at levels that are less than significant and are considered when evaluating the potential environmental impacts of implementing the General Plan. Chapter 4 lists goals, policies, and objectives from the General Plan. The Housing Element is updated for the 6<sup>th</sup> cycle and planned developments identified in the Land Use Element accommodates the Regional Housing Needs Allocation goal of 950 housing units, which represents a 18.2% increase from the existing number of housing units. The project includes Amendments to Chapter 155 (Zoning) of the Santa Fe Springs Municipal Code (Zoning Map and Zoning Text Amendments) to implement the Land Use Element's Land Use Plan.

### *Existing Conditions*

The Planning Area consists of the corporate boundaries of the City of Santa Fe Springs and its Sphere of Influence (portions of unincorporated Los Angeles County communities of West Whittier-Los Nietos and South Whittier). The City of Santa Fe Springs is located in Los Angeles County approximately 12 miles southeast of downtown Los Angeles and 13 miles northeast of downtown Long Beach. The San Gabriel River defines the western city limits. Six cities total

border the city (clockwise from the north): Pico Rivera, Whittier, La Mirada, Cerritos, Norwalk, and Downey. The unincorporated communities of West Whittier-Los Nietos and South Whittier that make up the Sphere of Influence and abut the City's borders to the east and west. The area within the City's corporate boundaries totals 8.9 square miles (4,741 acres) and the Sphere of Influence totals 2.6 square miles (1,285 acres) for a total Planning Area of 11.5 square miles.

The Planning Area is in the Los Angeles Basin, a coastal alluvial plain nestled between the Santa Monica Mountains, the Pacific Ocean, the Elysian, Repetto, and Puente Hills and the Santa Ana Mountains and San Joaquin Hills. Geologically, it occupies the Central Block area of the Los Angeles Basin adjacent to the Elsinore Fault and Newport-Inglewood Fault. Headwaters from the San Gabriel Mountains five miles north are the source of the San Gabriel River and recharge the aquifers of the Central Groundwater Basin. Water is drained by the San Gabriel River Watershed and where it flows to 10 miles south to the Pacific Ocean. Few natural open spaces remain in the City.

The entire Planning Area has a total estimated population of 48,550 with most residing in the Sphere of Influence. According to the State Department of Finance, the population of the City in 2020 was 18,292, surpassing its prior population peak of 16,414 in 2000. In 2020, the City estimated its housing stock at 5,513 units and was the place of employment for 54,716 workers.<sup>2</sup> The Planning Area's urban development is part of the Los Angeles-Long Beach-Anaheim urban area, a densely developed territory with an area of 1,736 square mile and a total population of 12,563,660 and encompass residential, commercial, and other non-residential urban land uses of the Los Angeles Basin and adjoining urbanized valleys.<sup>3</sup>

Major regional transportation routes that carry vehicular traffic (personal vehicles, freight, and buses) and rail service cross City borders. The City is named after the Atchison, Topeka & Santa Fe Railway. Metrolink operates rail passenger service at Norwalk/Santa Fe Springs Station serving two lines: 91/Perris Valley Line and Orange County Line. Both the BNSF Railway and Union Pacific railroads operate in Santa Fe Springs, with a Union Pacific railyard located adjacent to Los Nietos Road and Union Pacific Distribution Services operating the Valla rail port on Sorenson Avenue. Rail freight operates within long established rail easements/rights-of-way that traverse the City, largely at at-grade crossings. The interchange of the I-605 and the I-5 freeways is in the City and several regional roadways provide multiple access points along the routes of the freeways. Within the City, Telegraph Road, Slauson Avenue, and Washington Boulevard provide primary access to I-605. I-5, on the southwest City boundary, is a major interstate highway providing north-south connectivity to Los Angeles, Anaheim, and Irvine, and as far north as Washington state. Florence Avenue is the primary access roadway to I-5 and the I-605/I-5 interchange.

The storm drain system in Santa Fe Springs is maintained by the Los Angeles County Flood Control District (LACFCD), funnels stormwater through a network of mains and catch basins until it is eventually discharged in the Pacific Ocean via the San Gabriel River and its tributaries. High concentrations of impervious surfaces in intensive urban areas, like Santa Fe Springs and

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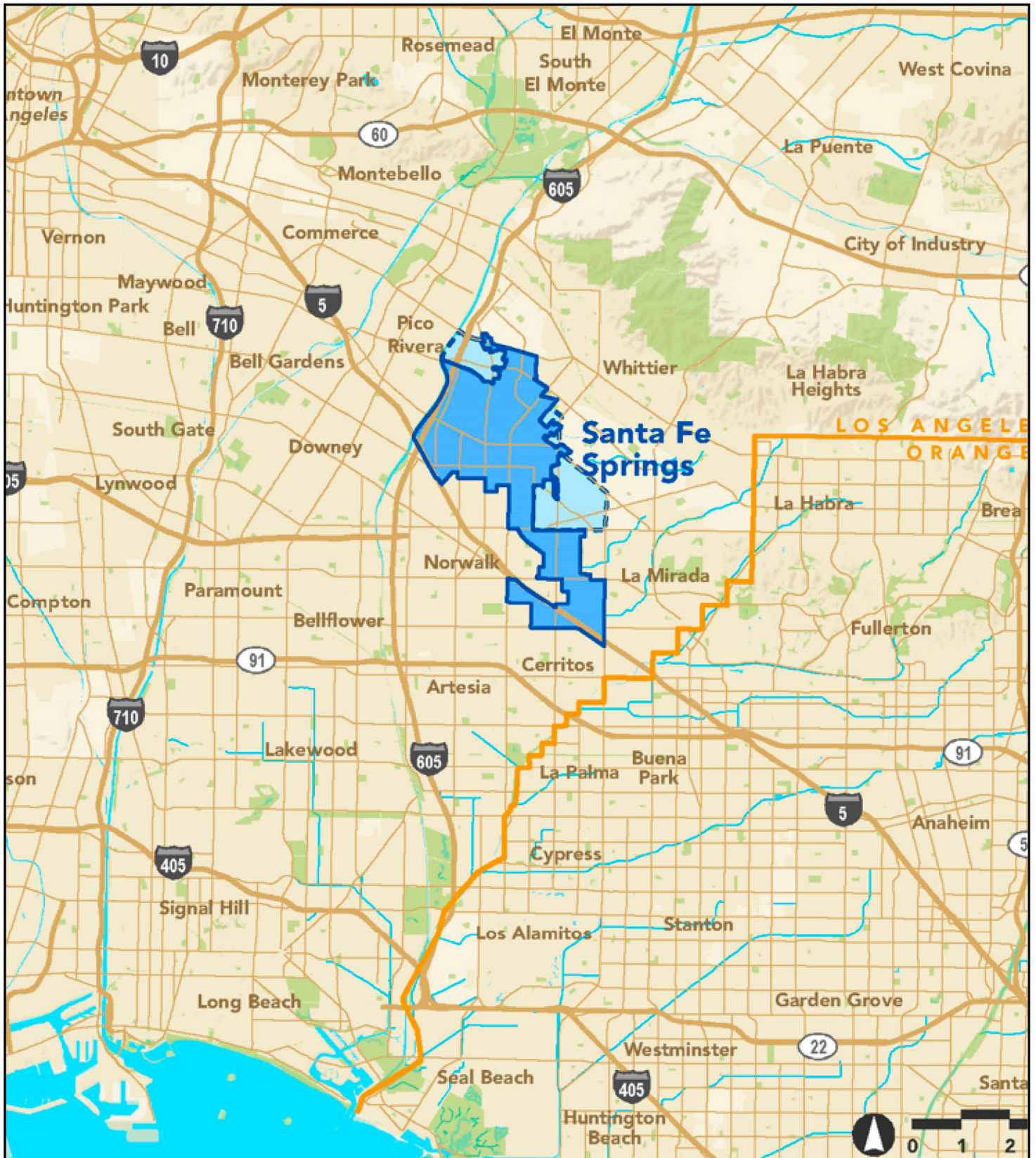
<sup>2</sup> Per Table 1 including Pre-certified Local Housing Data for the City of Santa Fe Springs. Southern California Association of Governments. August 2020.

<sup>3</sup> Urban Areas Facts <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/ua-facts.html> [Accessed March 2021].



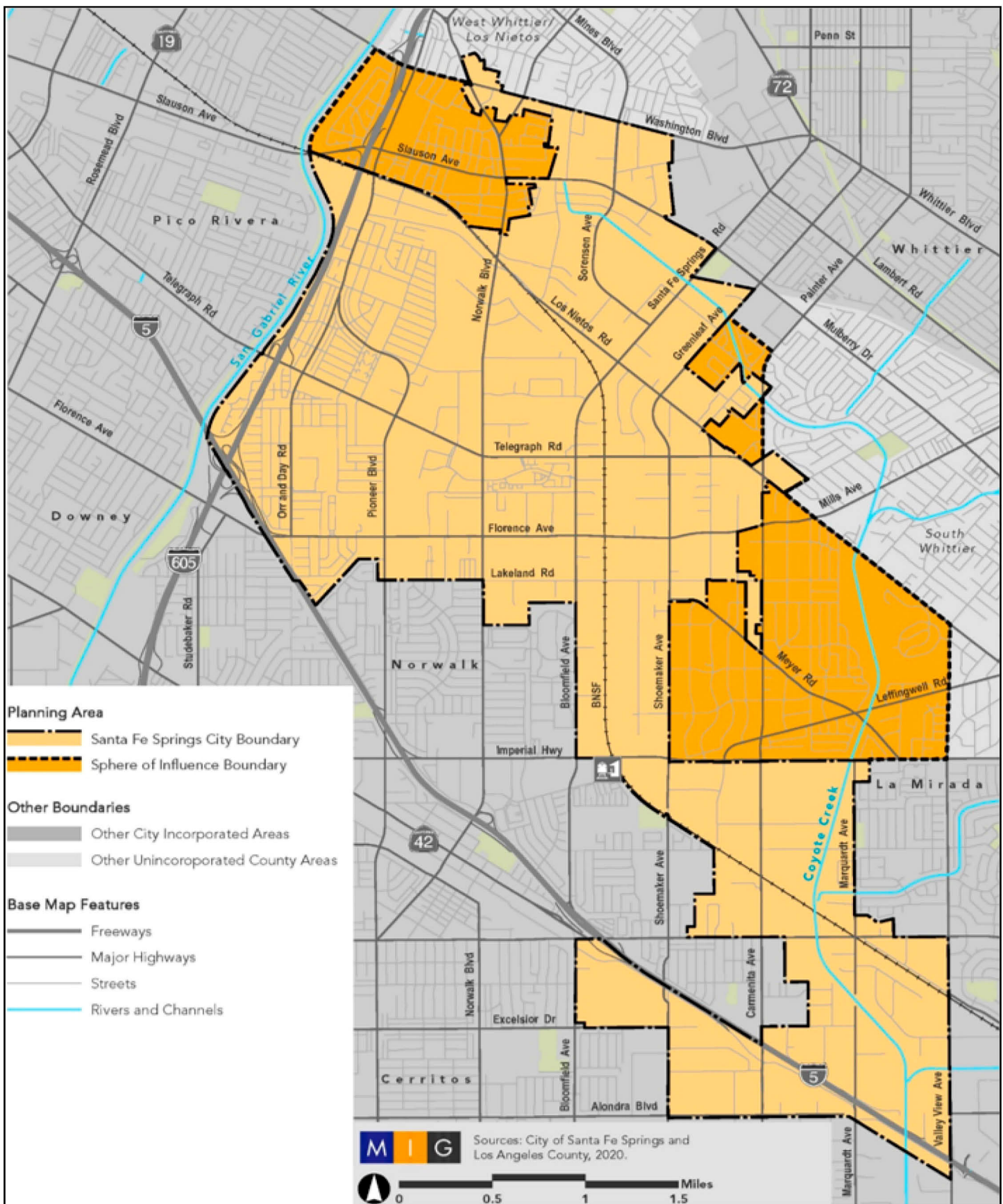
surrounding vicinities, has contributed to poor water quality from polluted stormwater runoff. Key sources of contamination include sediment, nutrients, pesticides, metals, oil and grease, and pathogens. The San Gabriel River is impaired by pollutants, including selenium and metals, such as copper, lead, and zinc. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials, such as galvanized steel, that are exposed to rain.

The existing land uses, inclusive of properties within the City incorporated limits and the County of Los Angeles unincorporated limits (Sphere of Influence), are divided into 12 categories: single family, multi-family, commercial, hotel/motel, office, industrial, public facilities, parks and open space, river and creeks, golf courses, railroad right-of-way, and vacant lands. Santa Fe Springs' existing land use distribution is noted in Table 1 (Existing Land Use Distribution 2020). The City's Existing Land Use map, as of 2020, is shown as Exhibit 3 (Existing Land Use Plan). There are an estimated 5,513 dwelling units within the City limits and 6,639 dwelling units in the Sphere of Influence, for a total 12,152 dwellings within the Planning Area.



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**Table 1**  
**Existing Land Use Distribution (2020)**

Land Use Designation	Santa Fe Springs					Sphere of Influence					Planning Area				
	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees
<b>Residential</b>															
Single-Family	424.1	3,954	12,981	--	--	640.8	5,825	25,449	--	--	1,064.9	9,779	38,430	--	--
Multiple-Family	95.9	1,559	5,311	--	--	207.8	814	3,177	--	--	303.7	2,373	8,488	--	--
<b>Sub-Total</b>	<b>520.0</b>	<b>5,513</b>	<b>18,292</b>	<b>--</b>	<b>--</b>	<b>848.6</b>	<b>6,639</b>	<b>28,626</b>	<b>--</b>	<b>--</b>	<b>1,368.6</b>	<b>12,152</b>	<b>46,918</b>	<b>--</b>	<b>--</b>
<b>Commercial</b>															
Commercial	221.3	--	--	3,922,700	5,296	36.8	--	--	382,400	379	258.1	--	--	4,305,100	5,675
Hotel/Motel	2.8	--	--	140,000	50	1.6	--	--	26,500	28	4.4	--	--	166,500	78
Office	117.9	--	--	3,203,800	2,998	2.6	--	--	30,900	13	120.5	--	--	3,234,700	3,011
<b>Sub-Total</b>	<b>342.0</b>	<b>--</b>	<b>--</b>	<b>7,266,500</b>	<b>8,344</b>	<b>41.0</b>	<b>--</b>	<b>--</b>	<b>439,800</b>	<b>420</b>	<b>383</b>	<b>--</b>	<b>--</b>	<b>7,706,300</b>	<b>8,764</b>
<b>Industrial</b>															
Industrial	3,322.3	--	--	67,743,600	43,330	11.6	--	--	92,500	296	3,333.9	--	--	67,836,100	43,626
<b>Sub-Total</b>	<b>3,322.3</b>	<b>--</b>	<b>--</b>	<b>67,743,600</b>	<b>43,330</b>	<b>11.6</b>	<b>--</b>	<b>--</b>	<b>92,500</b>	<b>296</b>	<b>3,333.9</b>	<b>--</b>	<b>--</b>	<b>67,836,100</b>	<b>43,626</b>
<b>Public Facilities, Institutional, and Open Space</b>															
Public Facility	155.7	--	--	1,780,800	3,042	219.3	--	--	761,300	638	375.0	--	--	2,542,100	3,680
Parks and Open Space	97.1	--	--	--	--	14.4	--	--	--	--	111.5	--	--	--	--
Rivers and Creeks	56.6	--	--	--	--	16.8	--	--	--	--	73.4	--	--	--	--
Golf Courses	--	--	--	--	--	96.6	--	--	--	--	96.6	--	--	--	--
<b>Sub-Total</b>	<b>309.4</b>	<b>--</b>	<b>--</b>	<b>1,780,800</b>	<b>3042</b>	<b>347.1</b>	<b>--</b>	<b>--</b>	<b>761,300</b>	<b>638</b>	<b>656.5</b>	<b>--</b>	<b>--</b>	<b>2,542,100</b>	<b>3,680</b>
<b>Other</b>															
Street Right-of-Way	940.4	--	--	--	--	389.1	--	--	--	--	1,329.5	--	--	--	--
Railroad Right-of-Way	153.6	--	--	--	--	--	--	--	--	--	153.6	--	--	--	--
Vacant	93.3	--	--	--	--	13.4	--	--	--	--	106.7	--	--	--	--
<b>Sub-Total</b>	<b>1,187.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>402.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>1,589.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>TOTAL</b>	<b>5,681.0</b>	<b>5,513</b>	<b>18,292</b>	<b>76,790,900</b>	<b>54,716</b>	<b>1,650.8</b>	<b>6,639</b>	<b>28,626</b>	<b>1,293,600</b>	<b>1,354</b>	<b>7,331.8</b>	<b>12,152</b>	<b>46,918</b>	<b>78,084,500</b>	<b>56,070</b>

Source: City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.



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## Proposed General Plan Update

The General Plan Update (GPU) is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 2 (General Plan Update: Comparison of 2020 and 2040) compares 2020 and 2040 land uses for the City of Santa Fe Springs, the Sphere of Influence, and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated at approximately 16,724 dwelling units, 60,808 residents, 79,573,800 building square feet of non-residential uses, and 60,858 jobs. This table shows existing conditions as of 2020 and the projected growth based on the proposed land use plan for a future horizon year of 2040.

**Table2**  
**General Plan Update: Comparison of 2020 and 2040**

Development Indicators	Existing Conditions (2020)			Future Buildout Conditions (2040)		
	City	SOI	Total	City	SOI	Total
Dwelling Units	5,513	6,639	12,152	9,421	7,303	16,724
Population	18,292	28,626	46,918	30,351	30,457	60,808
Non-Residential Building Square Feet	76,790,900	1,293,600	78,084,500	78,273,600	1,300,200	79,573,800
<i>Commercial</i>	3,922,700	382,400	4,305,100	3,841,900	382,400	4,224,300
<i>Office</i>	3,203,800	30,900	3,234,700	3,564,200	34,500	3,598,700
<i>Hotels/Motels Rooms (Rms)</i>	140,000	26,500	166,500	553,900	26,500	580,400
	150 Rms	120 Rms	270 Rms	900 Rms	120 Rms	1,020 Rms
<i>Industrial</i>	67,743,600	92,500	67,836,100	68,537,100	92,500	68,219,600
<i>Public Facilities/ Institutional</i>	1,780,800	761,300	2,542,100	1,776,600	761,300	2,537,900
Employees	54,716	1,354	56,070	59,321	1,536	60,858
Students	5,446	4,049	9,495	6,638	4,914	11,552

**Source:** City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.

### Land Use Element

The Land Use Element provides the framework for establishing the patterns of development activity and land uses that achieves the General Plan's Vision and Guiding Principles. The Land Use Element serves as a guide for decision-makers, residents, stakeholders, business owners, and property owners as it identifies and describes the type, intensity, and general distribution of land for housing, businesses, industries, and public facilities. Land use designations identify the general categories of activities permitted throughout the City.

The Land Use Element includes a Land Use Plan that establishes 15 land use designations intended to provide a rational and orderly approach to land use development. The land use designations and acreages for the City, Sphere of Influence, and Planning Area are noted in Table 3 (General Plan Update (2040) Land Use). Exhibit 4 (Proposed Land Use Plan) shows the proposed General Plan Land Use Map. The land use overlays identify special study areas for which specific land use policies have been developed to better shape growth in these areas as shown in Exhibit 4. The

goals and policies contained in the chapter provide guidance to plan for orderly growth, promote economic development, and protect natural resources.

#### Housing Element (2021-2029)

This Housing Element provides a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all community residents. The Housing Element specifically intends to: 1) provide direction for future planning programs to ensure that sufficient consideration is given to housing goals and policies; 2) establish community goals and policies relative to housing through the identification of existing, stated, and implicit goals, and the identification of housing needs and challenges; 3) accommodate the Regional Housing Needs Assessment (RHNA) goal mandated by the State; and 4) establish and identify programs to implement and attain the community's goals and policies, taking into consideration the feasibility of those programs, and act as a meaningful guide to decision-makers considering housing-related issues.

#### Environmental Justice Element

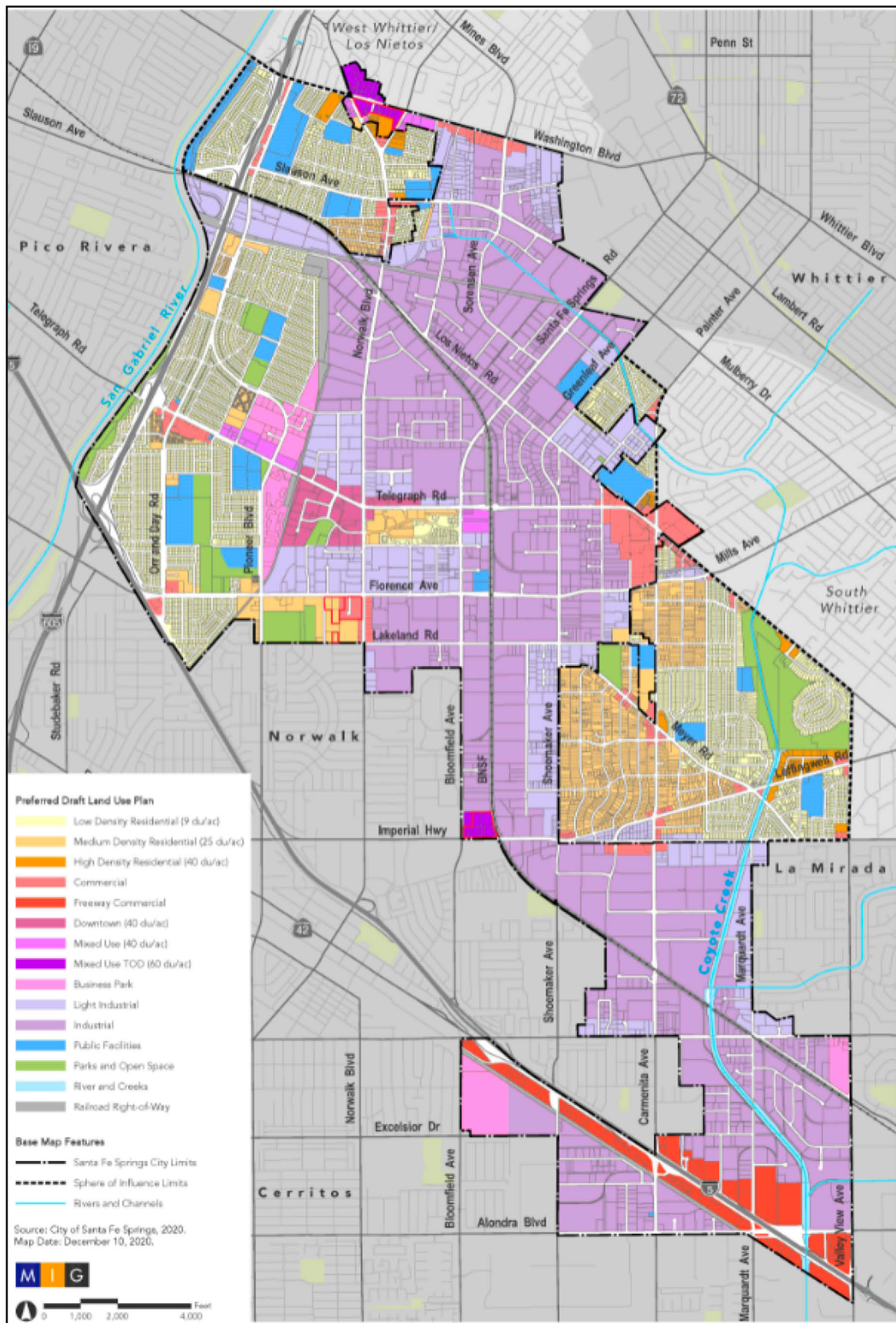
The Environmental Justice Element is mandated in the General Plan to serve as a comprehensive policy document specific to disadvantaged communities in the City. The Environmental Justice Element identifies the screening method to identify disadvantaged communities, documents the spatial relationship of existing and planned land uses, and provides a community profile relating to public health. As mandated by State law, its contents identify policies and objectives related to addressing and identifying health risks associated with overconcentration and proximity of industrial and polluting land uses to residential properties; reducing health risks through promotion of physical activities, improved housing conditions, and food access.

**Table 3  
General Plan Update (2040) Land Use**

Land Use Designation	Santa Fe Springs					Sphere of Influence					Planning Area				
	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees	Acres	Dwelling Units	Population	Non-Residential Building Square Feet	Employees
<b>Residential</b>															
Low Density Residential	413.4	3,561	11,111	-	-	521.5	3,870	16,224	-	-	934.9	7,431	27,335	-	-
Medium Density Residential	140.7	2,705	8,882	-	-	353.5	2,432	10,409	-	-	494.2	5,137	19,291	-	-
High Density Residential	6.3	241	791	-	-	47.2	1,001	3,824	-	-	53.5	1,242	4,615	-	-
<i>Sub-Total</i>	<i>560.4</i>	<i>6,507</i>	<i>20,784</i>	<i>-</i>	<i>-</i>	<i>922.2</i>	<i>7,303</i>	<i>30,457</i>	<i>-</i>	<i>-</i>	<i>1,482.6</i>	<i>13,810</i>	<i>51,242</i>	<i>-</i>	<i>-</i>
<b>Commercial</b>															
Commercial	123.0	-	-	2,190,300	3,141	42.7	-	-	535,700	510	165.7	-	-	2,726,000	3,651
Freeway Commercial	156.7	-	-	2,405,200	1,964	-	-	-	-	-	156.7	-	-	2,405,200	1,964
Business Park	178.5	-	-	2,968,500	3,083	-	-	-	-	-	178.5	-	-	2,968,500	3,083
<i>Sub-Total</i>	<i>458.2</i>	<i>-</i>	<i>-</i>	<i>7,564,000</i>	<i>8,188</i>	<i>42.7</i>	<i>-</i>	<i>-</i>	<i>535,700</i>	<i>510</i>	<i>500.9</i>	<i>-</i>	<i>-</i>	<i>8,099,700</i>	<i>8,698</i>
<b>Mixed Use</b>															
Mixed Use (40 du/ac)	38.1	832	2,732	292,300	1,080	-	-	-	-	-	38.1	832	2,732	292,300	970
Mixed Use TOD (60 du/ac)	36.6	1,436	4,714	237,200	530	-	-	-	-	-	36.6	1,436	4,714	237,200	530
Downtown (40 du/ac)	71.8	646	2,121	1,438,000	3,450	-	-	-	-	-	71.8	646	2,121	1,438,000	3,450
<i>Sub-Total</i>	<i>146.5</i>	<i>2,914</i>	<i>9,566</i>	<i>1,967,500</i>	<i>5,060</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>146.5</i>	<i>2,914</i>	<i>9,567</i>	<i>1,967,500</i>	<i>4,950</i>
<b>Industrial</b>															
Light Industrial	706.5	-	-	13,712,700	10,885	22.6	-	-	92,500	300	729.1	-	-	13,805,200	11,185
Industrial	2,454.0	-	-	54,414,400	32,650	-	-	-	-	-	2,454.0	-	-	54,414,400	33,979
<i>Sub-Total</i>	<i>3,160.5</i>	<i>-</i>	<i>-</i>	<i>68,127,100</i>	<i>43,535</i>	<i>22.6</i>	<i>-</i>	<i>-</i>	<i>92,500</i>	<i>300</i>	<i>3,183.1</i>	<i>-</i>	<i>-</i>	<i>68,219,600</i>	<i>45,164</i>
<b>Public Facilities, Parks, and Open Space</b>															
Public Facilities	113.0	-	-	615,000	1,319	146.3	-	-	672,000	726	259.2	-	-	1,287,000	2,046
Parks/Open Space	91.8	-	-	-	-	111.3	-	-	-	-	203.1	-	-	-	-
River and Creeks	56.6	-	-	-	-	16.8	-	-	-	-	73.5	-	-	-	-
Street Right-of-Way	940.4	-	-	-	-	388.9	-	-	-	-	1,329.3	-	-	-	-
Railroad Right-of-Way	153.6	-	-	-	-	-	-	-	-	-	153.6	-	-	-	-
<i>Sub-Total</i>	<i>1,355.4</i>	<i>-</i>	<i>-</i>	<i>615,000</i>	<i>1,319</i>	<i>663.3</i>	<i>-</i>	<i>-</i>	<i>672,000</i>	<i>726</i>	<i>2,018.7</i>	<i>-</i>	<i>-</i>	<i>1,287,000</i>	<i>2,046</i>
<b>TOTAL</b>	<b>5,681.0</b>	<b>9,421</b>	<b>30,351</b>	<b>78,273,600</b>	<b>59,321</b>	<b>1,650.8</b>	<b>7,303</b>	<b>30,457</b>	<b>1,300,200</b>	<b>1,536</b>	<b>7,331.8</b>	<b>16,724</b>	<b>60,808</b>	<b>79,573,800</b>	<b>60,857</b>

Source: City of Santa Fe Springs, Los Angeles County Assessor's Data, and General Plan Update GIS data, 2020.

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## *Zoning Map and Zoning Text Amendments*

Chapter 155 (Zoning) of the Santa Fe Springs Municipal Code (Zoning Map and Zoning Text Amendments) is the primary tool for implementing the goals, objectives and policies of the Land Use Element, pursuant to the mandated provisions of the State Planning and Zoning Law (Government Code Section 65000 et seq.), State Subdivision Map Act (Government Code Section 66410 et seq.), California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and other applicable state and local requirements. The zoning map and zoning regulations, including development standards, permits and procedures, zones and zone descriptions that are contained in Chapter 155 are being revised to be consistent with the exhibits and text of the Land Use Element.

### *Key Opportunity Sites*

In addition to the General Plan and Zoning updates, the project includes four Key Opportunity Sites. The following describes the proposed development that could be built within each site. Table 4 (Key Opportunity Sites) identifies the development capacity and general development standards for each site.

- **Washington Boulevard/Norwalk Transit-Oriented Development (TOD).** This opportunity site is located within the triangular blocks between Washington Boulevard, Norwalk Boulevard, and Broadway bordering the City of Santa Fe Springs and the Los Angeles County unincorporated area of West Whittier-Los Nietos. The area, on the southside of Washington Boulevard, consists of older vehicle-oriented commercial properties and restaurants. A planned Metro Eastside Transit Corridor Phase 2 light rail station (Metro L line) is proposed within the street right-of-way near the intersection of Washington Boulevard and Norwalk Boulevard. The line will connect the current terminus in East Los Angeles to the City of Whittier at Lambert Avenue. The proposed Washington Boulevard/Norwalk Transit-Oriented Development project would allow construction of up to 480 residential units and 40,000 square feet of commercial development within multiple buildings with a maximum height of six-stories. The ground floor would include pedestrian-oriented commercial uses, such as retail and restaurants, as well as residential lobbies. The project would also include ground floor open space, including a public plaza with seating, landscaping, outdoor dining, and widened sidewalks.
- **Metrolink Transit-Oriented Development (TOD).** This opportunity site is located at the northeast corner of Imperial Highway and Bloomfield bordering the City of Norwalk and across the street from the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station. The project would replace existing commercial, business park, and industrial properties. The proposed Metrolink Transit-Oriented Development project would allow up to 600 residential units and 70,400 square feet of commercial development within multiple buildings with a maximum height of six stories. The ground floor would include pedestrian-oriented commercial uses, such as retail and restaurants, as well as residential lobbies. The project would also include ground floor open space, including a public plaza with seating, landscaping, and widened sidewalks.



- **MC&C Site.** This opportunity site is located at the southeast corner of Telegraph Road and Bloomfield Avenue on vacant properties that include active and abandoned oil wells and associated pipelines. The concept MC&C Site project would allow construction of up to 306 residential units and 50,500 square feet of commercial development within multiple buildings with a maximum height of four stories. Along Telegraph Road, ground floor would include commercial uses, such as retail and restaurants and upper floor will include residential units. Along Bloomfield Avenue, development would allow standalone residential development and live-work units directly fronting the street. Several oil wells will remain active and will be buffered from residential and commercial buildings.
- **Koontz Site.** This opportunity site is located between Lakeland Road, Norwalk Boulevard, Fulton Wells Avenue, and Florence Avenue. The concept project would replace existing industrial properties with up to 156 residential units and 110,500 square feet of commercial development within multiple one- to three-story buildings in height. Residential development will consist of tuck-under residential building types at three stories in height. Commercial development will consist of a neighborhood shopping center with retail, commercial services, and restaurants on the southwest corner of Florence Avenue and Norwalk Boulevard.

**Table 4**  
**Key Opportunity Sites**

Site	Acres	General Plan Land Use Designation	Key Use Types	Development Standards			Development Capacity	
				Maximum				
				Density (du/ac)	Intensity (FAR)	Allowed Stories	Dwelling Units	Building Non- Residential SF
Washington/ Norwalk TOD	8.8	Mixed Use Transit-Oriented Development (TOD)	<b>Mixed Uses:</b> <ul style="list-style-type: none"><li>▪ Multi-Family</li><li>▪ Commercial services and retail/ restaurants</li></ul>	60	2.00	6	480	40,000
Metrolink TOD	10.7						600	70,400
MC&C Site	9.7	Mixed Use		40	1.25	4	306	55,500
Kootnz Site	6.2	Medium Density Residential	Multi-Family (townhomes, tuck-under, live-work)	25	--	3	156	--
	8.4	Commercial	Neighborhood Shopping Center	N/A	0.35	2	--	110,500
Total	43.8			Total			1,542	276,400

Source: City of Santa Fe Springs and MIG, March 2021. du/ac = dwelling unit per acre SF = square feet FAR = Floor Area Ratio

### Required Approvals:

Implementation of the proposed GPU will require the following discretionary approvals by the City of Santa Fe Springs City Council:

- Certification of Final Environmental Impact Report
- Adoption of a Mitigation Monitoring and Reporting Program
- Adoption of General Plan Update
- Adoption of focused Zoning Code Update and Map Amendment

## **Programmatic EIR:**

The City of Santa Fe Springs has determined that the proposed GPU will require preparation of an EIR pursuant to the California Environmental Quality Act (CEQA). The City is the Lead Agency for preparation of a Program Environmental Impact Report (Program EIR) for the proposed Focused GPU. The Program EIR will evaluate the environmental impacts resulting from implementation of the General Plan Update and will recommend mitigation measures to avoid or reduce significant impacts, where applicable. The Program EIR also is intended to help the City review future project proposals pursuant to section 15168 (Program EIR) of the CEQA Guidelines. The following environmental topics will be evaluated in the EIR:

- **Aesthetics:** The EIR will describe the aesthetic implications of the proposed General Plan Update, including its visual relationships to the surrounding vicinity and the potential impacts of development (the proposed array of building masses, heights, view corridors etc.) on important surrounding vantage points.
- **Agriculture and Forestry:** The EIR will explain why these CEQA-defined environmental topics will not be adversely affected by implementation of the General Plan Update.
- **Air Quality:** The EIR will describe the potential impacts of the proposed GPU on local and regional air quality based on methodologies defined by the South Coast Air Quality Management District (SCAQMD).
- **Biological Resources:** The EIR will evaluate potential impacts on biological resources resulting from implementation of the proposed GPU.
- **Cultural and Tribal Cultural Resources:** The EIR will describe any potential impacts and mitigation needs associated with historic and cultural (archaeological) resources, including potential impacts on Tribal Cultural Resources.
- **Energy:** The EIR will evaluate the impacts of implementation of the GPU on energy resources and implementation of state and local plans for renewable energy and energy efficiency.
- **Geology and Soils:** The EIR will analyze the potential paleontological impacts associated with implementation of the proposed GPU.
- **Greenhouse Gas Emissions and Global Climate Change:** The EIR will describe the impacts of implementation of the proposed GPU on greenhouse gas emissions and global climate change, following the latest approach and methodologies recommended by State and regional agencies.
- **Hazards and Hazardous Materials:** The EIR will describe the potential for hazardous material use or hazardous waste investigation and cleanup activities anticipated in the Planning Area and will describe any associated potential impacts and mitigation needs, if applicable. Potential construction period hazards and hazardous material impacts and mitigation needs will also be described.

- **Hydrology and Water Quality:** The EIR will evaluate potential impacts on hydrology and water quality resulting from implementation of the proposed GPU, including possible effects related to drainage and flooding.
- **Land Use and Planning:** The EIR will describe the potential effects of implementation of the proposed GPU on existing and planned land use characteristics in the City, including the General Plan's relationship to other adopted regional and local plans.
- **Mineral Resources:** The EIR will evaluate if the General Plan Update will have any significant impact on existing mineral resources in the Planning Area.
- **Noise:** The EIR will describe potential construction and long-term operational noise (traffic, mechanical systems etc.) impacts and related mitigation needs where applicable.
- **Population and Housing:** The EIR will describe the anticipated effects of the projected population growth and subsequent increase in housing. This information will be used to forecast public service and utility needs in the General Plan area.
- **Public Services:** The EIR will describe potential impacts on public services (police and fire protection, parks and recreation, and schools).
- **Transportation and Circulation:** The EIR will describe the transportation and circulation implications of the proposed GPU, including the contribution to daily and peak hour traffic on local and regional roadways. The evaluation will include roadway system impacts, transit implications, and effects on pedestrian and bicycle circulation. General Plan components to improve multimodal travel will also be considered.
- **Utilities and Service Systems:** The EIR will describe the impacts of implementation of the proposed GPU on local utility and service systems, including water supply, water and wastewater treatment, and solid waste and recycling.
- **Wildfire:** The EIR will evaluate if the proposed General Plan Update will have any significant impacts related to wildfire.
- **Alternatives:** Pursuant to CEQA Guidelines Section 15126.6, the EIR will identify and compare a reasonable range of alternatives to the proposed Project.



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Jonathan Vasquez, Superintendent  
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Whittier, CA 90606

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Martin J. Plourde, Superintendent  
9401 S. Painter Ave.  
Whittier, CA 90605

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South Coast Air Quality Management District  
Intergovernmental Review (CEQA)  
Attn: Ms. Lijin Sun  
21865 E. Copley Drive  
Diamond Bar, CA 91765

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L.A. County Dept. of Public Works  
Attn: Environmental Programs  
PO Box 1460  
Alhambra, CA 91802

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Planning Division  
12700 Norwalk Boulevard  
Norwalk, CA 90650

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13230 Penn Street  
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Community Development Department  
Advanced & Current Planning  
18125 Bloomfield Avenue  
P.O. Box 3130  
Cerritos, CA 90703

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Planning Division  
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LACMTA Development Review  
One Gateway Plaza MS 99-18-3  
Los Angeles, CA 90012 – 2952

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Gabrielino Tongva – San Gabriel  
Band of Mission Indians  
Attn.: Sam Dunlap  
P.O. Box 693  
San Gabriel, CA 91778

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Gabrielino Tongva – San Gabriel  
California Tribal Council  
Attn.: Robert F. Dorame, Tribal Chair  
P.O. Box 490  
Bellflower, CA 90707

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Joseph Ontiveros  
Cultural Resource Director  
Soboba Band of Luiseño Indians  
P.O. Box 487  
San Jacinto, CA 92581

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District 7  
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Los Angeles, California 90012

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Richard Drury  
Kamalpreet Toor  
Stacey Osborne  
Lozeau Drury LLP  
1939 Harrison Street, Suite 150  
Oakland, CA 94607

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Southern California Edison Company  
Local Governmental Affairs  
Land Use/Environmental Coordinator  
2131 Walnut Grove Avenue  
Rosemead, CA 91770

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of Southern California  
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Gabrielino Band of Mission Indians – Kizh Nation  
Attn.: Andrew Salas, Chairman  
P.O. Box 393  
Covina, CA 91723

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Norwalk-La Mirada Unified School District  
15711 Pioneer Blvd., Bldg G  
Norwalk, CA 90650

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## Cuong H. Nguyen

---

**From:** Higgins, Anthony@DOT <Anthony.Higgins@dot.ca.gov>  
**Sent:** Tuesday, June 01, 2021 12:35 PM  
**To:** Cuong H. Nguyen  
**Cc:** state.clearinghouse@opr.ca.gov  
**Subject:** Caltrans District 7 Comment Letter - Santa Fe Springs General Plan Update - NOP - SCH# 2021050193 - GTS# 07-LA-2021-03584  
**Attachments:** 07-LA-2021-03584 Sante Fe Springs General Plan Update - NOP - SIGNED.pdf

Greetings,

Please see the attached Caltrans comment letter for the following project:

Santa Fe Springs General Plan Update – NOP  
SCH# 2021050193  
GTS# 07-LA-2021-03584

Best,

Anthony Higgins  
Associate Transportation Planner  
Caltrans District 7, Division of Planning  
100 S. Main Street, MS-16  
Los Angeles, CA 90012  
(213) 266-3574  
[anthony.higgins@dot.ca.gov](mailto:anthony.higgins@dot.ca.gov)

**DEPARTMENT OF TRANSPORTATION**

DISTRICT 7- OFFICE OF REGIONAL PLANNING

100 S. MAIN STREET, SUITE 100

LOS ANGELES, CA 90012

PHONE (213) 266-3574

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a California Way of Life.*

June 1, 2021

Cuong Nguyen, Senior Planner  
City of Santa Fe Springs Planning Department  
11710 East Telegraph Road  
Santa Fe Springs, California 90670

RE: Santa Fe Springs General Plan Update –  
Notice of Preparation (NOP)  
SCH# 2021050193  
GTS# 07-LA-2021-03584  
Vic. LA-Multiple

Dear Cuong Nguyen,

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The City of Santa Fe Springs General Plan Update (GPU) is a comprehensive revision to the General Plan adopted in 1993 and 1994 (the Housing Element was last updated in 2013) and includes several new elements. The GPU incorporates statutory requirements for general plans and guidance provided in the 2017 General Plan Guidelines; coordinates future development and policies with regional planning efforts and serves as the City's fundamental guide in developing strategies to address greenhouse gas reduction, climate adaptation, and resiliency planning. The comprehensive update of the Santa Fe Springs General Plan serves as the blueprint for the City's future growth and development. As such, the General Plan must contain goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services.

After reviewing the NOP, Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities. However, to accommodate the additional housing units and not induce demand for excessive Vehicle Miles Travelled (VMT), Caltrans recommends significantly reducing or eliminating car parking requirements. Research looking at the relationship between land-use, parking, and transportation indicates that car parking prioritizes driving above all other travel modes and undermines a community's ability to choose public transit and active modes of transportation. For any community or city to better support all modes of transportation and reduce vehicle miles traveled, we recommend the implementation of a TDM ordinance, as an alternative to requiring car parking.

Caltrans looks forward to reviewing the forthcoming Draft Environmental Impact Report (DEIR) to confirm that the Project will result in a net reduction in VMT.

If you have any questions, please contact project coordinator Anthony Higgins, at [anthony.higgins@dot.ca.gov](mailto:anthony.higgins@dot.ca.gov) and refer to GTS# 07-LA-2021-03584.

Sincerely,

*Frances Duong*

FRANCES DUONG  
Acting IGR/CEQA Branch Chief

cc: State Clearinghouse

## Cuong H. Nguyen

---

**From:** Valand, Andrew@Wildlife <Andrew.Valand@wildlife.ca.gov>  
**Sent:** Monday, June 07, 2021 3:13 PM  
**To:** Cuong H. Nguyen  
**Cc:** Wilson-Olgin, Erinn@Wildlife; Tang, Victoria@Wildlife; Kwan-Davis, Ruby@Wildlife; Silva, Felicia@Wildlife; Howell, Susan@Wildlife; OPR State Clearinghouse; Wildlife CEQA Comment Letters  
**Subject:** CDFW Comments on the Santa Fe Springs General Plan Update  
**Attachments:** CDFW Comments on Santa Fe Springs General Plan NOP.pdf

Good afternoon Cuong Nguyen,

Please see the attached letter regarding California Department of Fish and Wildlife's comments on the Santa Fe Springs General Plan Update. If you have any questions or concerns relating to this letter, please feel free to contact CDFW at your convenience.

Thank you for the opportunity to comment and have a good day.

**Andrew Valand**

Environmental Scientist  
California Dept. of Fish & Wildlife  
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June 7, 2021

Cuong Nguyen  
City of Santa Fe Springs  
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**Subject: Notice of Preparation of a Draft Environmental Impact Report for the Santa Fe Springs General Plan Update, SCH #2021050193, City of Santa Fe Springs, Los Angeles County**

Dear Cuong Nguyen:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the City of Santa Fe Springs (City; Lead Agency) for the Santa Fe Springs General Plan Update (Project). Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

#### **CDFW's Role**

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 *et seq.*). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, § 1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

*Conserving California's Wildlife Since 1870*

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## Project Description and Summary

**Objective:** The Project involves a comprehensive update of the Santa Fe Springs General Plan that serves as the blueprint for the City's future growth and development. As a response to recently passed State law, the Project is a revision to the General Plan adopted in 1993 and 1994 (the Housing Element was last updated in 2013) and includes several new elements. The update incorporates statutory requirements for general plans and guidance provided in the 2017 General Plan Guidelines; coordinates future development and policies with regional planning efforts; and serves as the City's fundamental guide in developing strategies to address greenhouse gas reduction, climate adaptation, and resiliency planning.

The Project includes updates to the Housing Element. In addition, planned developments identified in the Land Use Element accommodates the Regional Housing Needs Allocation goal of 950 housing units. This represents an 18.2 percent increase from the existing number of housing units. The Project includes Amendments to the Zoning Section of the Santa Fe Springs Municipal Code to implement the Land Use Element's Land Use Plan.

**Location:** The Project would apply to the City of Santa Fe Springs, located approximately 12 miles southeast of downtown Los Angeles, in Los Angeles County.

## Comments and Recommendations

CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

### Specific Comments

- 1) Natural Resources and Open Space Inventory. CDFW recommends the City prepare a map of the following areas if present within or adjacent to the City boundary. In addition, the City should consider the Project's potential impacts on the following areas if present within or adjacent to the Project boundary:
  - a) Conservation easements or mitigation lands;
  - b) U.S. Fish and Wildlife Service [Threatened & Endangered Species Active Critical Habitat](#) (USFWS 2020);
  - c) Sensitive Natural Communities [see General Comment #3 (Biological Baseline Assessment)];
  - d) Aquatic and riparian resources including (but not limited to) rivers, channels, streams, wetlands, and vernal pools, and associated natural plant communities;
  - e) Open spaces and undeveloped natural areas that may serve as habitat for local wildlife species, such as the greenbelt adjacent to the San Gabriel River;
  - f) Wildlife corridors, particularly potential wildlife movement along the San Gabriel River; and,
  - g) Urban forests, particularly areas with dense and large trees [see Specific Comment #4 (Loss of Bird and Raptor Nesting Habitat)].

CDFW recommends the City avoid sites that may have a direct or indirect impact on conservation easements or lands set aside as mitigation. CDFW recommends the DEIR



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include measures where future housing development facilitated by the Project mitigates (avoid if feasible) for impacts on biological resources occurring within SEAs and critical habitat. Future housing development facilitated by the Project should also mitigate for impacts on wildlife corridors, sensitive natural communities, aquatic and riparian resources, and urban forests.

- 2) Development and Conservation. To accommodate increased housing needs, the City is expected to build more units in the coming years. CDFW recommends the City maximize development where it already exists and avoid undeveloped areas in order to protect natural and working lands from development, habitat loss, and climate change. CDFW recommends the City consider regional and State-wide natural resource conservation strategies outlined in the following reports: [Safeguarding California Plan: 2018 Update](#) (CNRA 2018); [California State Wildlife Action Plan: A Conservation Legacy for Californians](#) (CDFW 2015); and, [California 2030 Natural and Working Lands Climate Change Implementation Plan: January 2019 Draft](#) (CalEPA et al. 2019).
- 3) Nesting Birds. The parks around the City offer refuge for nesting bird species that have very limited options in a heavily urbanized area. CDFW recommends the DEIR include measures where future housing development facilitated by the Project avoids potential impacts to nesting birds. Project activities occurring during the bird and raptor breeding and nesting season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.
  - a) Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.
  - b) CDFW recommends that measures be taken to fully avoid impacts to nesting birds and raptors. Ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation removal should occur outside of the avian breeding season which generally runs from February 15 through August 31 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.
  - c) If impacts to nesting birds and raptors cannot be avoided, CDFW recommends the DEIR include measures where future housing development facilitated by the Project mitigates for impacts. CDFW recommends surveys by a qualified biologist with experience conducting breeding bird and raptor surveys. Surveys are needed to detect protected native birds and raptors occurring in suitable nesting habitat that may be disturbed and any other such habitat within 300 feet of the Project disturbance area, to the extent allowable and accessible. For raptors, this radius should be expanded to 500 feet and 0.5 mile for special status species, if feasible. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

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- 4) Loss of Bird and Raptor Nesting Habitat. The biggest threat to birds is habitat loss and conversion of natural vegetation into another land use such as development (e.g., commercial, residential, industrial). In the greater Los Angeles region, urban forests and street trees, both native and some non-native species, provide habitat for a high diversity of birds (Wood and Esaian 2020). Some species of raptors have adapted to and exploited urban areas for breeding and nesting (Cooper et al. 2020). For example, raptors (*Accipitridae*, *Falconidae*) such as red-tailed hawks (*Buteo jamaicensis*) and Cooper's hawks (*Accipiter cooperii*) can nest successfully in urban sites. Red-tailed hawks commonly nest in ornamental vegetation such as eucalyptus (Cooper et al. 2020). According to iNaturalist, there are multiple observations of red-tailed hawks and Copper's hawks within the City.
  - a) CDFW recommends the DEIR provide measures where future housing development facilitated by the Project avoids removal of any native trees, large and dense-canopied native and non-native trees, and trees occurring in high density (Wood and Esaian 2020). CDFW also recommends avoiding impacts to trees protected by the City's Heritage Tree Program and Tree Ordinance. CDFW also recommends avoiding impacts to understory vegetation (e.g., ground cover, subshrubs, shrubs, and trees).
  - b) If impacts to trees cannot be avoided, trees should be replaced to compensate for the temporal or permanent loss habitat within a project site. Depending on the status of the bird or raptor species impacted, replacement habitat acres should increase with the occurrence of a California Species of Special Concern. Replacement habitat acres should further increase with the occurrence of a CESA-listed threatened or endangered species.
  - c) CDFW recommends planting native tree species preferred by birds. This includes coast live oak (*Quercus agrifolia*) and California sycamore (*Platanus racemosa*) (Wood and Esaian 2020). CDFW recommends Audubon Society's [Plants for Birds](#) for more information on selecting native plants and trees beneficial to birds (Audubon Society 2020).
- 5) Bats. Numerous bat species are known to roost in trees and structures throughout Los Angeles County (Remington and Cooper 2014). In urbanized areas, bats use trees and man-made structures for daytime and nighttime roosts. Accordingly, CDFW recommends the DEIR provide measures where future housing development facilitated by the Project avoids potential impacts to bats.
  - a) Bats are considered non-game mammals and are afforded protection by State law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code of Regs., § 251.1). Project construction and activities, including (but not limited to) ground disturbance, vegetation removal, and any activities leading to increased noise levels may have direct and/or indirect impacts on bats and roosts.
  - b) CDFW recommends a project-level biological resources survey provide a thorough discussion and adequate disclosure of potential impacts to bats and roosts from project construction and activities including (but not limited to) ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation removal. If necessary, to reduce impacts to less than significant, a project-level environmental document should



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provide bat-specific avoidance and/or mitigation measures [CEQA Guidelines, § 15126.4(a)(1)].

### **General Comments**

- 1) Disclosure. An environmental document should provide an adequate, complete, and detailed disclosure about the effect which a proposed project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, §15151). Adequate disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity).
- 2) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures [CEQA Guidelines, §§ 15002(a)(3), 15021]. Pursuant to CEQA Guidelines section 15126.4, an environmental document shall describe feasible measures which could mitigate for impacts below a significant level under CEQA.
  - a) Level of Detail. Mitigation measures must be feasible, effective, implemented, and fully enforceable/imposed by the lead agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, §§ 15126.4, 15041). A public agency shall provide the measures that are fully enforceable through permit conditions, agreements, or other measures (Pub. Resources Code, § 21081.6). CDFW recommends that the City prepare mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). Adequate disclosure is necessary so CDFW may provide comments on the adequacy and feasibility of proposed mitigation measures.
  - b) Disclosure of Impacts. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the Project as proposed, the environmental document should include a discussion of the effects of proposed mitigation measures [CEQA Guidelines, § 15126.4(a)(1)]. In that regard, the environmental document should provide an adequate, complete, and detailed disclosure about a project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.
- 3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to a project site and where a project may result in ground disturbance. The assessment and analysis should place emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive habitats. Impact analysis will aid in determining any direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW recommends avoiding any sensitive natural communities found on or adjacent to a project. CDFW also considers impacts to Species of Special Concern a significant direct and cumulative adverse

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effect without implementing appropriate avoid and/or mitigation measures. A project-level environmental document should include the following information:

- a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. An environmental document should include measures to fully avoid and otherwise protect Sensitive Natural Communities from project-related impacts. CDFW considers these communities as threatened habitats having both regional and local significance. Plant communities, alliances, and associations with a state-wide ranking of S1, S2, S3 and S4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting [Vegetation Classification and Mapping Program - Natural Communities](#) webpage (CDFW 2020a);
- b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#) (CDFW 2018). Adjoining habitat areas should be included where project construction and activities could lead to direct or indirect impacts off site;
- c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at a project site and within the neighboring vicinity. The [Manual of California Vegetation](#) (MCV), second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2009). Adjoining habitat areas should be included in this assessment where project activities could lead to direct or indirect impacts off site. Habitat mapping at the alliance level will help establish baseline vegetation conditions;
- d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by a project. CDFW's [California Natural Diversity Database](#) (CNDDDB) in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat (CDFW 2020b). An assessment should include a nine-quadrangle search of the CNDDDB to determine a list of species potentially present at a project site. A lack of records in the CNDDDB does not mean that rare, threatened, or endangered plants and wildlife do not occur in the project site. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];
- e) A complete, recent, assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species of Special Concern, and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of a project site should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's [Survey and Monitoring Protocols and Guidelines](#) for established survey protocol for select species (CDFW 2020c). Acceptable species-specific survey



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procedures may be developed in consultation with CDFW and the U.S. Fish and Wildlife Service;

- f) A recent wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of a proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame or in phases; and,
  - g) A biological resources survey should include identification and delineation of any rivers, streams, and lakes and their associated natural plant communities/habitats. This includes any culverts, ditches, storm channels that may transport water, sediment, pollutants, and discharge into rivers, streams, and lakes.
- 4) Data. CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected by completing and submitting [CNDDB Field Survey Forms](#) (CDFW 2020d). The City should ensure data collected at a project-level has been properly submitted, with all data fields applicable filled out. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred.
- 5) Biological Direct, Indirect, and Cumulative Impacts. CDFW recommends providing a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. The DEIR should address the following:
- a) A discussion regarding Project-related indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (NCCP, Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;
  - b) A discussion of both the short-term and long-term effects to species population distribution and concentration and alterations of the ecosystem supporting the species impacted [CEQA Guidelines, § 15126.2(a)];
  - c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures;
  - d) A discussion on Project-related changes on drainage patterns; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and, post-Project fate of runoff from the Project sites. The discussion should also address the potential water extraction activities and the potential resulting impacts on the habitat (if any) supported by the groundwater. Mitigation measures proposed to alleviate such Project impacts should be included;

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- e) An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and,
  - f) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and vegetation communities. If the City determines that the Project would not have a cumulative impact, the environmental document should indicate why the cumulative impact is not significant. The City's conclusion should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].
- 6) Project Description and Alternatives. To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR:
- a) A complete discussion of the purpose and need for, and description of, the proposed Project;
  - b) CEQA Guidelines section 15126.6(a) states that an environmental document shall describe a reasonable range of potentially feasible alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project. CEQA Guidelines section 15126.6(f)(2) states if the Lead Agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include reasons in the environmental document;
  - c) A range of feasible alternatives to Project component location and design features to avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas. CDFW recommends the City consider configuring Project construction and activities, as well as the development footprint, in such a way as to fully avoid impacts to sensitive and special status plants and wildlife species, habitat, and sensitive vegetation communities. CDFW also recommends the City consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes for the duration of the Project and from any future development. As a general rule, CDFW recommends reducing or clustering the development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space. Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6); and
  - d) Where the Project may impact aquatic and riparian resources, CDFW recommends the City consider alternatives that would fully avoid impacts to such resources. CDFW also recommends alternatives that would allow not impede, alter, or otherwise modify existing surface flow; watercourse and meander; and water-dependent ecosystems and



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vegetation communities. Project-related designs should consider elevated crossings to avoid channelizing or narrowing of streams. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level and cause the stream to alter its course of flow.

- 7) CESA. CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or CESA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options [Fish & Game Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.
- 8) Jurisdictional Waters. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream, or use material from a streambed. For any such activities, the project applicant (or "entity") must provide written notification to CDFW pursuant to Fish and Game Code Section 1600 *et seq.*
  - a) CDFW's issuance of a Lake and Streambed Alteration (LSA) Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the environmental document of the local jurisdiction (Lead Agency) for the project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the environmental document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA Agreement. Please visit CDFW's [Lake and Streambed Alteration Program](#) webpage for information about LSA Notification (CDFW 2020e).
  - b) In the event the project area may support aquatic, riparian, and wetland habitats; a preliminary delineation of the streams and their associated riparian habitats should be included in the environmental document. The delineation should be conducted pursuant to the U.S. Fish and Wildlife Service (USFWS) wetland definition adopted by CDFW (Cowardin et al. 1970). Be advised that some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' Section 404 permit and Regional Water Quality Control Board Section 401

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Certification.

- c) In project areas which may support ephemeral or episodic streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of these resources and help maintain natural sedimentation processes; therefore, CDFW recommends effective setbacks be established to maintain appropriately sized vegetated buffer areas adjoining ephemeral drainages.
  - d) Project-related changes in upstream and downstream drainage patterns, runoff, and sedimentation should be included and evaluated in the environmental document.
  - e) As part of the LSA Notification process, CDFW requests a hydrological evaluation of the 100, 50, 25, 10, 5, and 2-year frequency storm event for existing and proposed conditions. CDFW recommends the environmental document evaluate the results and address avoidance, minimization, and/or mitigation measures that may be necessary to reduce potential significant impacts.
- 9) Wetland Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's (Commission) policies. The [Wetlands Resources](#) policy the Commission "...seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California (CFGF 2020). Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values."
- a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in an environmental document and these measures should compensate for the loss of function and value.
  - b) The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage



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and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).

- 10) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of moving an individual from a project site and permanently moving it to a new location. CDFW generally does not support the use of, translocation or transplantation as the primary mitigation strategy for unavoidable impacts to rare, threatened, or endangered plant or animal species. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving sensitive plants and animals and their habitats.
- 11) Compensatory Mitigation. An environmental document should include mitigation measures for adverse Project related direct or indirect impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.
- 12) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, an environmental document should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

## Conclusion

We appreciate the opportunity to comment on the NOP for the Santa Fe Springs General Plan Update to assist the City of Santa Fe Springs in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Andrew Valand, Environmental Scientist, at [Andrew.Valand@wildlife.ca.gov](mailto:Andrew.Valand@wildlife.ca.gov) or (562) 292-6821.

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Sincerely,

DocuSigned by:

*Erinn Wilson-Olgin*

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Erinn Wilson-Olgin  
Environmental Program Manager I  
South Coast Region

cc: CDFW

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Frederic Rieman, Los Alamitos – [Frederic.Rieman@wildlife.ca.gov](mailto:Frederic.Rieman@wildlife.ca.gov)  
Susan Howell, San Diego – [Susan.Howell@wildlife.ca.gov](mailto:Susan.Howell@wildlife.ca.gov)  
CEQA Program Coordinator, Sacramento – [CEQACommentLetters@wildlife.ca.gov](mailto:CEQACommentLetters@wildlife.ca.gov)

State Clearinghouse, Sacramento – [State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

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Cuong Nguyen  
City of Santa Fe Springs  
June 7, 2021  
Page 13 of 13

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# CITY OF CERRITOS<sup>SM</sup>

CIVIC CENTER • 18125 BLOOMFIELD AVENUE  
P.O. BOX 3130 • CERRITOS, CALIFORNIA 90703-3130  
PHONE: (562) 860-0311 • CERRITOS.US



June 10, 2021

Received

JUN 14 2021

Planning Department

City of Santa Fe Springs, Planning Department  
Attn: Mr. Cuong Nguyen, Senior Planner  
11710 East Telegraph Road  
Santa Fe Springs, CA 90670  
Via E-mail: CuongNguyen@santafesprings.org

SUBJECT: **CITY OF CERRITOS COMMENT LETTER REGARDING THE CITY OF  
SANTA FE SPRINGS GENERAL PLAN UPDATE AND NOTICE OF  
PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT**

Dear Mr. Nguyen:

The City of Cerritos has received notification that the City of Santa Fe Springs is currently preparing its General Plan Update and draft Environmental Impact Report (DEIR) in accordance with California Environmental Quality Act (CEQA) guidelines. Thank you for notifying the City of Cerritos and for soliciting comments from neighboring jurisdictions as the City of Santa Fe Springs embarks on an extensive process of updating its General Plan. As a city's General Plan establishes goals and policies that guide the future of local planning efforts and development, and addresses environmental concerns such as air quality, conservation, noise, and circulation, the City of Cerritos hereby takes this opportunity to provide comments to the City of Santa Fe Springs regarding environmental and air quality considerations in light of the proposed General Plan Update for the City of Santa Fe Springs.

Air Quality Analysis of Industrial Land Use Designation. In light of the City of Santa Fe Springs's proposed land use amendments and potential rezoning of various parcels under the General Plan Update, the City of Cerritos requests that the City of Santa Fe Springs and its consultants extensively review the potential environmental impacts, specifically air quality and related environmental matters, associated with the proposed land use and zoning amendments of properties currently zoned Heavy Industrial, Trucking, or Light Industrial to "Industrial" within the southern portion of the City of Santa Fe Springs. The City of Cerritos understands the desire to consolidate land use designations in order to better shape future growth in the City of Santa Fe Springs, but respectfully requests that the appropriate environmental analysis, including an analysis of potential air quality impacts, be conducted as part of the proposed zoning/land use designation amendment under the General Plan Update. Additionally, the City of Cerritos requests that the City of Santa Fe Springs identify and establish performance measures within the Industrial land use designation to ensure that said land uses operate within the established environmental thresholds, and that appropriate procedures are established to prohibit hazardous chemicals, require the ongoing monitoring of such uses, and any other measures required to protect adjacent and surrounding land uses.

Environmental Analysis of Future Industrial Uses. In addition, the City of Cerritos requests that an environmental analysis be completed for any and all future uses which will be

classified as an Industrial use, in order to ensure that appropriate mitigation measures are incorporated to minimize or eliminate any potential impacts to surrounding properties, including properties located in the City of Cerritos. The purpose of such review is to ensure that the health and safety of the general public are protected, despite the proposed changes in land use and zoning. Such analysis should include an assessment of truck traffic generated by any existing and/or proposed industrial or warehousing use, given the proximity of the reclassified Industrial parcels to the City of Cerritos, and in light of the potential for an increase in truck traffic as a result of a rise in goods movement from local ports to accommodate the related increase of e-commerce sales and businesses.

Thank you in advance for your thoughtful consideration as the City of Santa Fe Springs moves forward with preparing its General Plan Update and the associated DEIR. Should you have any questions or wish to discuss the matter further, please not hesitate to contact me at (562) 916-1201.

Sincerely,

A handwritten signature in blue ink, appearing to read 'RAL', is positioned above the printed name of the signatory.

Robert A. Lopez, AICP  
Director of Community Development

cc: Art Gallucci, City Manager  
Bill Ihrke, City Attorney  
Torrey Contreras, Senior Assistant City Manager  
Kristin Aguila, Advance Planning Manager



## Cuong H. Nguyen

---

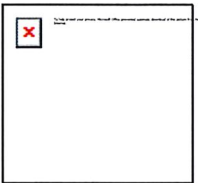
**From:** Gabrieleno Administration <admin@gabrielenoindians.org>  
**Sent:** Monday, May 24, 2021 11:11 AM  
**To:** Cuong H. Nguyen  
**Subject:** Re: [BULK] City of Santa Fe Springs General Plan Update

Hello Cuong

Thank you for your response. Since there will not be any ground disturbance taking place there will be no need for consultation. We ask that you please notify us in the future when ground disturbance will be taking place.

Thank you

Admin Specialist  
Gabrieleno Band of Mission Indians - Kizh Nation  
PO Box 393  
Covina, CA 91723  
Office: 844-390-0787  
website: [www.gabrielenoindians.org](http://www.gabrielenoindians.org)



*The region where Gabrieleño culture thrived for more than eight centuries encompassed most of Los Angeles County, more than half of Orange County and portions of Riverside and San Bernardino counties. It was the labor of the Gabrieleño who built the missions, ranchos and the pueblos of Los Angeles. They were trained in the trades, and they did the construction and maintenance, as well as the farming and managing of herds of livestock. “The Gabrieleño are the ones who did all this work, and they really are the foundation of the early economy of the Los Angeles area “. “That’s a contribution that Los Angeles has not recognized--the fact that in its early decades, without the Gabrieleño, the community simply would not have survived.”*

On Fri, May 21, 2021 at 2:43 PM Cuong H. Nguyen <[CuongNguyen@santafesprings.org](mailto:CuongNguyen@santafesprings.org)> wrote:

Hi Brandy – At this time, we are simply updating our General Plan. There is no physical development taking place as part of the current General Plan update.

**Cuong Nguyen | Senior Planner**

**City of Santa Fe Springs | Planning Department**

11710 Telegraph Road | Santa Fe Springs, CA 90670

(562) 868-0511, Ext 7359 | (562) 868-7112 Fax

[cuongnguyen@santafesprings.org](mailto:cuongnguyen@santafesprings.org) | [www.santafesprings.org](http://www.santafesprings.org)



**From:** Gabrieleno Administration [mailto:[admin@gabrielenoindians.org](mailto:admin@gabrielenoindians.org)]  
**Sent:** Thursday, May 20, 2021 1:45 PM  
**To:** Cuong H. Nguyen <[CuongNguyen@santafesprings.org](mailto:CuongNguyen@santafesprings.org)>  
**Subject:** [BULK] City of Santa Fe Springs General Plan Update

Good afternoon Cuong Nguyen

Thank you for your letter regarding the above project. Since the project is a general plan update will there be any ground disturbance taking place? If there will not be any type of ground disturbance taking place we ask that you please notify us in the future when ground disturbance will occur.

Thank you

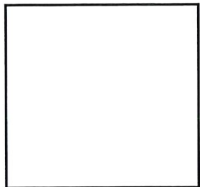
Sincerely,

Brandy Salas

Admin Specialist  
Gabrieleno Band of Mission Indians - Kizh Nation  
PO Box 393  
Covina, CA 91723

Office: 844-390-0787

website: [www.gabrielenoindians.org](http://www.gabrielenoindians.org)



*The region where Gabrieleño culture thrived for more than eight centuries encompassed most of Los Angeles County, more than half of Orange County and portions of Riverside and San Bernardino counties. It was the labor of the Gabrieleño who built the missions, ranchos and the pueblos of Los Angeles. They were trained in the trades, and they did the construction and maintenance, as well as the farming and managing of herds of livestock. ‘The Gabrieleño are the ones who did all this work, and they really are the foundation of the early economy of the Los Angeles area “ . “That’s a contribution that Los Angeles has not recognized--the fact that in its early decades, without the Gabrieleño, the community simply would not have survived.”*



## COUNTY OF LOS ANGELES FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE  
LOS ANGELES, CALIFORNIA 90063-3294  
(323) 881-2401  
[www.fire.lacounty.gov](http://www.fire.lacounty.gov)

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KATHRYN BARGER  
FIFTH DISTRICT

June 9, 2021

Cuong Nguyen, Analyst  
City of Santa Fe Springs  
Planning Department  
11710 East Telegraph Road  
Santa Fe Springs, CA 90670

Received

JUN 14 2021

Planning Department

Dear Mr. Nguyen:

**NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT, "SANTA FE SPRINGS GENERAL PLAN UPDATE," THE COMPREHENSIVE UPDATE OF THE SANTA FE SPRINGS GENERAL PLAN SERVES AS THE BLUEPRINT FOR THE CITY'S FUTURE GROWTH AND DEVELOPMENT, AS SUCH, THE GENERAL PLAN MUST CONTAIN GOALS, POLICIES, AND PROGRAMS THAT WILL PROVIDE CITY STAFF AND DISCRETIONARY BODIES WITH A FOUNDATION FOR DECISIONS FOR LONG-RANGE PLANNING RELATED TO PHYSICAL DEVELOPMENT AND PUBLIC SERVICES, SANTA FE SPRINGS, FFER 2021005386**

The Notice of Preparation of a Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

### **PLANNING DIVISION:**

We have no comments.

For any questions regarding this response, please contact Kien Chin, Planning Analyst, at (323) 881-2404 or [Kien.Chin@fire.lacounty.gov](mailto:Kien.Chin@fire.lacounty.gov).

### SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS  
ARTESIA  
AZUSA  
BALDWIN PARK  
BELL  
BELL GARDENS  
BELLFLOWER  
BRADBURY  
CALABASAS

CARSON  
CERRITOS  
CLAREMONT  
COMMERCE  
COVINA  
CUDAHY  
DIAMOND BAR  
DUARTE

EL MONTE  
GARDENA  
GLEN DORA  
HAWAIIAN GARDENS  
HAWTHORNE  
HERMOSA BEACH  
HIDDEN HILLS  
HUNTINGTON PARK  
INDUSTRY

INGLEWOOD  
IRVINDALE  
LA CANADA-FLINTRIDGE  
LA HABRA  
LA MIRADA  
LA PUENTE  
LAKEWOOD  
LANCASTER

LAWNDALE  
LOMITA  
LYNWOOD  
MALIBU  
MAYWOOD  
NORWALK  
PALMDALE  
PALOS VERDES ESTATES  
PARAMOUNT

PICO RIVERA  
POMONA  
RANCHO PALOS VERDES  
ROLLING HILLS  
ROLLING HILLS ESTATES  
ROSEMEAD  
SAN DIMAS  
SANTA CLARITA

SIGNAL HILL  
SOUTH EL MONTE  
SOUTH GATE  
TEMPLE CITY  
VERNON  
WALNUT  
WEST HOLLYWOOD  
WESTLAKE VILLAGE  
WHITTIER



**LAND DEVELOPMENT UNIT:**

This project is located entirely in the City of Santa Fe Springs; therefore, the City of Santa Fe Springs Fire Department has the jurisdiction concerning this project and will be setting conditions.

This project is in close proximity to the jurisdictional area of Los Angeles County Fire Department; however, this project is unlikely to have an impact that necessitates a comment concerning general requirements from the Land Development Unit of the Los Angeles County Fire Department.

For any questions regarding the report, please contact FPEA Claudia Soiza at (323) 890-4243 or [Claudia.soiza@fire.lacounty.gov](mailto:Claudia.soiza@fire.lacounty.gov).

**FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:**

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

Under the Los Angeles County Oak tree Ordinance, a permit is required to cut, destroy, remove, relocate, inflict damage or encroach into the protected zone of any tree of the Oak genus which is 25 inches or more in circumference (eight inches in diameter), as measured 4 1/2 feet above mean natural grade.

If Oak trees are known to exist in the proposed project area further field studies should be conducted to determine the presence of this species on the project site.

The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

For any questions regarding this response, please contact Forestry Assistant, Nicholas Alegria at (818) 890-5719.

**HEALTH HAZARDOUS MATERIALS DIVISION:**

The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department has no jurisdiction in the City of Santa Fe Springs. HHMD has no additional comments for the project at this time.

Please contact HHMD senior typist-clerk, Perla Garcia at (323) 890-4035 or [Perla.garcia@fire.lacounty.gov](mailto:Perla.garcia@fire.lacounty.gov) if you have any questions.

If you have any additional questions, please contact this office at (323) 890-4330

Cuong Nguyen, Analyst  
June 9, 2021  
Page 3

Very truly yours,

A handwritten signature in blue ink, appearing to read "Ronald M. Durbin". The signature is fluid and cursive, with the first name "Ronald" being the most prominent.

RONALD M. DURBIN, CHIEF, FORESTRY DIVISION  
PREVENTION SERVICES BUREAU

RMD:ac





**LOS ANGELES COUNTY  
SANITATION DISTRICTS**  
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Chief Engineer and General Manager

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(562) 699-7411 • [www.lacsd.org](http://www.lacsd.org)

June 15, 2021

Ref. DOC 6178583

Mr. Cuong Nguyen, Senior Planner  
City of Santa Fe Springs Planning Department  
11710 East Telegraph Road  
Santa Fe Springs, CA 90670

Dear Mr. Nguyen:

**NOP Response for City of Santa Fe Springs General Plan Update**

The Los Angeles County Sanitation Districts (Districts) received a Notice of Preparation of a Draft Environmental Impact Report (NOP) for the subject project on May 17, 2021. The City of Santa Fe Springs (City) is located within the jurisdictional boundary of District No. 18. We offer the following comments regarding sewerage service:

1. The Districts own, operate, and maintain the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City except to state that presently no deficiencies exist in Districts' facilities that serve the City. For information on deficiencies in the City sewerage system, please contact the City Department of Public Works and/or the Los Angeles County Department of Public Works.
2. The Districts should review individual developments within the City to determine whether or not sufficient trunk sewer capacity exists to serve each project and if Districts' facilities will be affected by the project.
3. The wastewater generated by the City is treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 259.7 mgd, or the Los Coyotes Water Reclamation Plant located in the City of Cerritos, which has a capacity of 37.5 mgd and currently processes an average flow of 21.3 mgd.
4. In order to estimate the volume of wastewater the project will generate, go to [www.lacsd.org](http://www.lacsd.org), under Services, then Wastewater Program and Permits, select Will Serve Program, and scroll down to click on the [Table 1, Loadings for Each Class of Land Use](#) link for a copy of the Districts' average wastewater generation factors.
5. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is used by the Districts to upgrade or expand the Sewerage System. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to [www.lacsd.org](http://www.lacsd.org), under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more

specific information regarding the connection fee application procedure and fees, the developer should contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.

6. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2743 or at [mandyng@lacsdsd.org](mailto:mandyng@lacsdsd.org).

Very truly yours,

*Mandy Ng*

Mandy Ng  
Environmental Planner  
Facilities Planning Department

MMN:mmn



Los Angeles County  
Metropolitan Transportation Authority

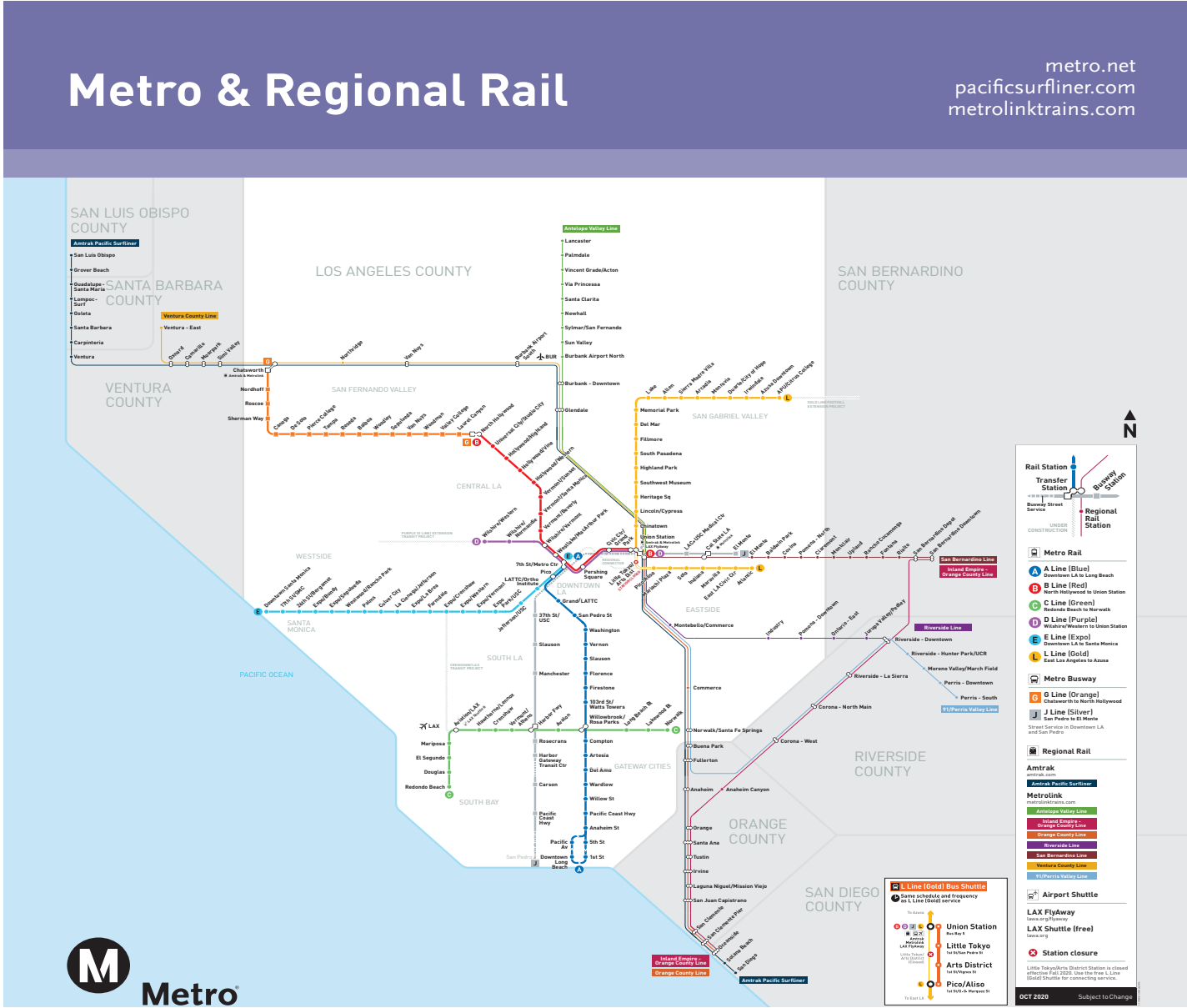
# METRO ADJACENT DEVELOPMENT HANDBOOK

A GUIDE FOR CITIES AND DEVELOPERS

February 2021



# Metro and Regional Rail Map



Metro is currently undertaking the largest rail infrastructure expansion effort in the United States. A growing transit network presents new opportunities to catalyze land use investment and shape livable communities.



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# Quick Overview

## Purpose of Handbook

The Metro Adjacent Development Handbook (Handbook) is intended to provide information and guide coordination for projects adjacent to, below, or above Metro transit facilities (e.g. right-of-way, stations, bus stops) and services.

### Overarching Goal

By providing information and encouraging early coordination, Metro seeks to reduce potential conflicts with transit services and facilities, and identify potential synergies to expand mobility and improve access to transit.

### Intended Audience

The Handbook is a resource for multiple stakeholder groups engaged in the development process, including:

- Local jurisdictions who review, entitle, and permit development projects,
- Developers,
- Property owners,
- Architects, engineers, and other technical consultants,
- Builders/contractors,
- Utility companies, and
- other Third Parties.

### Handbook Content

The Handbook includes:

- **Introduction** of Metro's Development Review coordination process, common concerns, and typical stages of review.
- **Information** on best practices during three key coordination phases to avoid potential conflicts or create compatibility with the Metro transit system:
  - Planning & Conceptual Design,
  - Engineering & Technical Review, and
  - Construction Safety & Monitoring.
- **Glossary** with definitions for key terms used throughout the Handbook.

## RULE OF THUMB: 100 FEET

**Metro's Development Review process applies to projects that are within 100 feet of Metro transit facilities.**

While the Handbook summarizes key concerns and best practices for adjacency conditions, it does not replace Metro's technical requirements and standards.

**Prior to receiving approval for any construction activities adjacent to, above, or below Metro facilities, Third Parties must comply with the Metro Adjacent Construction Design Manual, available on Metro's website.**

### Contact Us

For questions, contact the Development Review Team:

- Email: [devreview@metro.net](mailto:devreview@metro.net)
- Phone: 213.418.3484
- Online In-take Form: <https://jpropublic.metro.net/in-take-form>

### Additional Information & Resources

- Metro Development & Construction Coordination website:  
<https://www.metro.net/devreview>
- Metro GIS/KML ROW Files:  
<https://developer.metro.net/portfolio-item/metro-right-of-way-gis-data>
- Metrolink Standards and Procedures:  
<https://www.metrolinktrains.com/about/agency/engineering--construction>

Metro will continue to revise the Handbook, as needed, to reflect updates to best practices in safety, operations, and transit-supportive development.

# Background

## Who is Metro?

The Los Angeles County Metropolitan Transportation Authority (Metro) plans, funds, builds, and operates rail, bus, and other mobility services (e.g. bikeshare, microtransit) throughout Los Angeles County (LA County). On average, Metro moves 1.3 million people each day on buses and trains. With funding from the passage of Measure R (2008) and Measure M (2016), the Metro system is expanding. Over the next 40 years, Metro will build over 60 new stations and over 100 miles of transit right-of-way (ROW). New and expanded transit lines will improve mobility across LA County, connecting riders to more destinations and expanding opportunities for development that supports transit ridership. Metro facilities include:



**Metro Rail:** Metro operates heavy rail (HRT) and light rail (LRT) transit lines in underground tunnels, along streets, off-street in dedicated ROW, and above street level on elevated structures. Heavy rail trains are powered by a “third rail” along the tracks. Light rail vehicles are powered by overhead catenary systems (OCS). To support rail operations, Metro owns and maintains traction power substations (TPSS), maintenance yards, and other infrastructure.



**Metrolink/Regional Rail:** Metro owns a majority of the ROW within LA County on which the Southern California Regional Rail Authority (SCRRA) operates Metrolink service. Metrolink is a commuter rail system with seven lines that span 388 miles across five counties, including: Los Angeles, Orange, Riverside, San Bernardino, Ventura, and North San Diego. As a SCRRA member agency and property owner, Metro reviews development activity adjacent to Metro-owned ROW on which Metrolink operates, and coordinates with Metrolink on any comments or concerns. Metrolink has its own set of standards and processes, see link on page 1.



**Metro Bus Rapid Transit (BRT):** Metro operates accelerated bus transit, which acts as a hybrid between rail and traditional bus service. Metro BRT may operate in a dedicated travel lane within a street or freeway, or off-street along dedicated ROW. Metro BRT stations may be located on sidewalks within the public right-of-way, along a median in the center of streets, or off-street on Metro-owned property.



**Metro Bus:** Metro operates 170 bus lines across more than 1,400 square miles in LA County. The fleet serves over 15,000 bus stops with approximately 2,000 buses. Metro operates “Local” and “Rapid” bus service within the street, typically alongside vehicular traffic, though occasionally in “bus-only” lanes. Metro bus stops are typically located on sidewalks within the public right-of-way, which is owned and maintained by local jurisdictions. Metro’s [NextGen Bus Plan](#) re-envision bus service across LA County to make service improvements that better serve riders.



## Why is Metro interested in adjacent development?

**Metro Supports Transit Oriented Communities:** Metro is redefining the role of the transit agency by expanding mobility options, promoting sustainable urban design, and helping transform communities throughout LA County. Metro seeks to partner with local, state, and federal jurisdictions, developers, property owners and other stakeholders across LA County on transit-supportive planning and developments to grow ridership, reduce driving, and promote walkable neighborhoods. Transit Oriented Communities (TOCs) are places (such as corridors or neighborhoods) that, by their design, allow people to drive less and access transit more. TOCs maximize equitable access to a multi-modal transit network as a key organizing principle of land use planning and holistic community development.

**Adjacent Development Leads to Transit Oriented Communities:** Metro supports private development adjacent to transit as this presents a mutually beneficial opportunity to enrich the built environment and expand mobility options. By connecting communities, destinations, and amenities through improved access to public transit, adjacent developments have the potential to:

- reduce auto dependency,
- reduce greenhouse gas emissions,
- promote walkable and bikeable communities that accommodate more healthy and active lifestyles,
- improve access to jobs and economic opportunities, and
- create more opportunities for mobility – highly desirable features in an increasingly urbanized environment.

**Opportunity:** Acknowledging an unprecedented opportunity to influence how the built environment develops along and around transit and its facilities, Metro has created this document. The Handbook helps ensure compatibility between private development and Metro's transit infrastructure to minimize operational, safety, and maintenance issues. It serves as a crucial first step to encourage early and active collaboration with local stakeholders and identify potential partnerships that leverage Metro initiatives and support TOCs across LA County.



# Metro Purview & Concerns

## Metro Purview for Review & Coordination

**Metro is interested in reviewing development, construction, and utility projects within 100 feet of Metro transit facilities, real estate assets, and ROW** – as measured from the edge of the ROW outward – both to ensure the structural safety of existing or planned transit infrastructure and to maximize integration opportunities with adjacent development. The Handbook seeks to:

- Improve communication and coordination between developers, jurisdictions, and Metro.
- Identify common concerns associated with developments adjacent to Metro ROW.
- Highlight Metro operational needs and requirements to ensure safe, continuous service.
- Prevent potential impacts to Metro transit service or infrastructure.
- Maintain access to Metro facilities for riders and operational staff.
- Avoid preventable conflicts resulting in increased development costs, construction delays, and safety impacts.
- Streamline the review process to be transparent, clear, and efficient.
- Assist in the creation of overall marketable and desirable developments.

### **Key Audiences for Handbook**

The Handbook is intended to be used by:

- Local jurisdictions who review, entitle, and permit development projects and/or develop policies related to land use, development standards, and mobility,
- Developers, property owners,
- Architects, engineers, design consultants,
- Builders/contractors,
- Entitlement consultants,
- Environmental consultants,
- Utility companies, and
- other Third Parties.

### **Metro Assets & Common Concerns for Adjacent Development**

The table on the facing page outlines common concerns for development projects and/or construction activities adjacent to Metro transit facilities and assets. These concerns are discussed in greater detail in the following chapters of the Handbook.

## METRO ASSETS

## COMMON ADJACENCY CONCERNS



### UNDERGROUND ROW

Transit operates below ground in tunnels.

- Excavation near tunnels and infrastructure
- Clearance from support structures (e.g. tiebacks, shoring, etc)
- Coordination with utilities
- Clearance from ventilation shafts, surface penetrations (e.g. emergency exits)
- Surcharge loading of adjacent construction
- Explosions
- Noise and vibration/ground movement
- Storm water drainage



### AERIAL ROW

Transit operates on elevated guideway, typically supported by columns.

- Excavation near columns and support structures
- Column foundations
- Clearance from OCS
- Overhead protection and crane swings
- Setbacks from property line for maintenance activities to occur without entering ROW
- Coordination with utilities
- Noise reduction (e.g. double-paned windows)



### AT-GRADE ROW

Transit operates in dedicated ROW at street level; in some cases tracks are separated from adjacent property by fence or wall.

- Pedestrian and bicycle movements and safety
- Operator site distance/cone of visibility
- Clearance from OCS
- Crane swings and overhead protection
- Trackbed stability
- Storm water drainage
- Noise/vibration
- Driveways near rail crossings
- Setbacks from property line for maintenance activities to occur without entering ROW
- Utility coordination



### BUS STOPS

Metro operates bus service on city streets. Bus stops are located on public sidewalks.

- Lane closures and re-routing service during construction
- Temporary relocation of bus stops
- Impacts to access to bus stops



### NON-REVENUE/OPERATIONAL

Metro owns and maintains property to support operations (e.g. bus and rail maintenance facilities, transit plazas, traction power substations, park-and-ride parking lots).

- Excavation and clearance from support structures (e.g. tiebacks, shoring, etc)
- Ground movement
- Drainage
- Utility coordination
- Access to property

# Metro Coordination Process

## Typical Stages of Metro Review and Coordination

Early coordination helps avoid conflicts between construction activities and transit operations and maximizes opportunities to identify synergies between the development project and Metro transit services that are mutually beneficial.



\*Phases above may include fees for permits and reimbursement of Metro staff time for review and coordination.

**Coordination Goal:** Metro encourages developers to consult with the Development Review Team early in the design process to ensure compatibility with transit infrastructure and minimize operational, safety, and maintenance issues with adjacent development. The Development Review team will serve as a case manager to developers and other Third Parties to facilitate the review of plans and construction documents across key Metro departments.

**Level of Review:** Not all adjacent projects will require significant review and coordination with Metro. The level of review depends on the Project's proximity to Metro, adjacency conditions, and the potential to impact Metro facilities and/or services. For example, development projects that are excavating near Metro ROW or using cranes near transit facilities require a greater level of review and coordination. Where technical review and construction monitoring is needed, Metro charges fees for staff time, as indicated by asterisk in the above diagram.

**Permit Clearance:** Within the City of Los Angeles, Metro reviews and clears Building & Safety permits for projects within 100 feet of Metro ROW, pursuant to [Zoning Information 1117](#). To ensure timely clearance of these permits, Metro encourages early coordination as noted above.

To begin consultation, submit project information via an online [In-Take Form](#), found on Metro's website. Metro staff will review project information and drawings to screen the project for any potential impacts to transit facilities or services, and determine if require further review and coordination is required. The sample sections on the facing page illustrate adjacency condition information that helps Metro complete project screening.

### Contact:

Metro Development Review Team

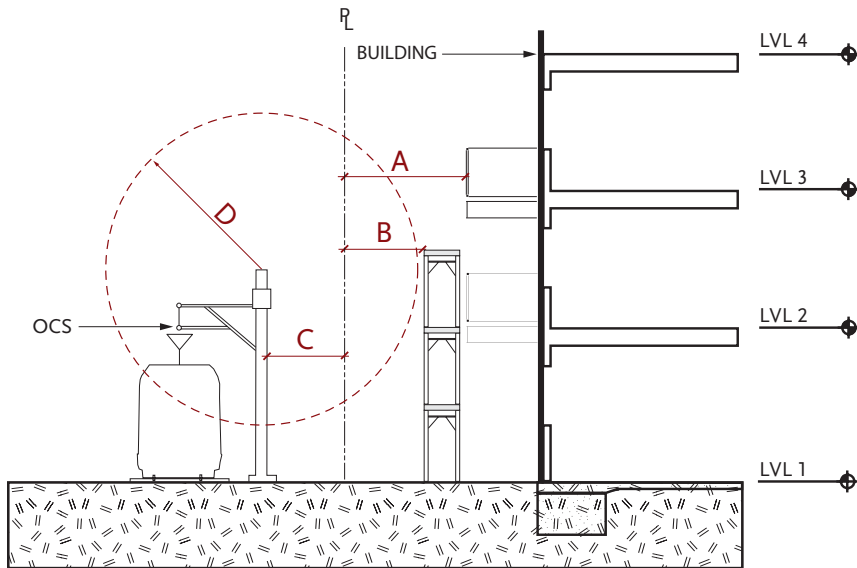
Website: <https://www.metro.net/devreview>

Online In-take Form: <https://jpublic.metro.net/in-take-form>

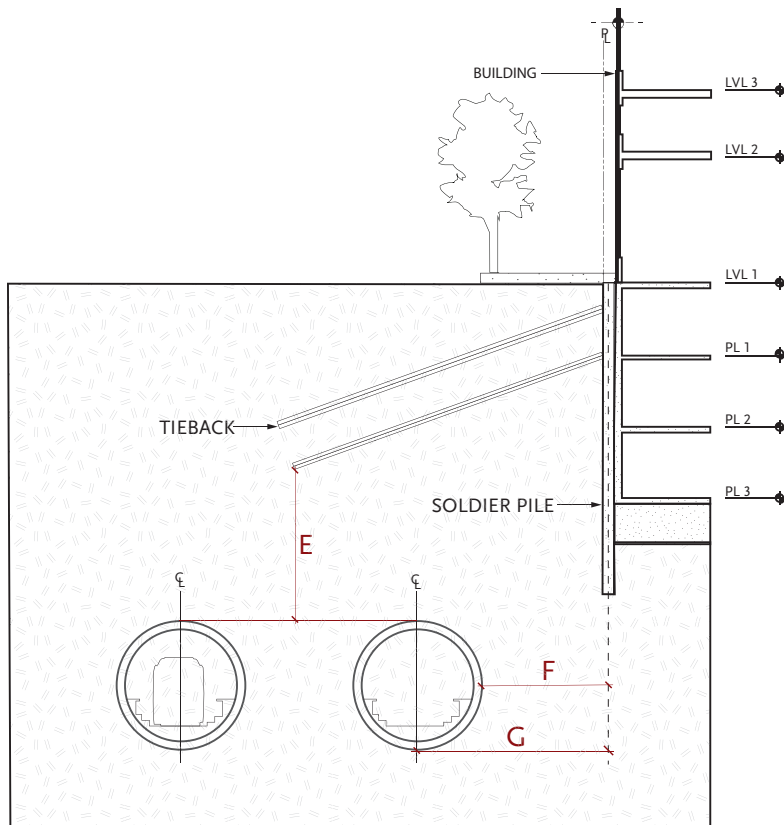
Email: [devreview@metro.net](mailto:devreview@metro.net)

Phone: 213.418.3484

## Sample Section: Adjacency Conditions



**AT-GRADE CONDITION**



**BELOW-GRADE CONDITION**

A. Distance from property line to nearest permanent structure (e.g. building facade, balconies, terraces). Refer to Section 1.3 Building Setback of Handbook.

B. Distance from property line to nearest temporary construction structures (e.g. scaffolding).

C. Distance from property line to nearest Metro facility.

D. Clearance from nearest temporary and/or permanent structure to overhead catenary system (OCS). Refer to Section 1.4, OCS Clearance of Handbook.

E. Vertical distance from top of Metro tunnel to closest temporary and/or permanent structure (e.g. tiebacks, foundation). Refer to Section 2.2, Proximity to Tunnels & Underground Infrastructure of Handbook.

F. Horizontal distance from exterior tunnel wall to nearest structure.

G. Horizontal distance from Metro track centerline to nearest structure.



# Best Practices

## Best Practices for Developer Coordination

Metro encourages developers of projects adjacent to Metro ROW and/or Real Estate Assets to take the following steps to facilitate Metro project review and approval:

1. **Review Metro resources and policies:** The Metro Development & Construction Coordination website and Handbook provide important information for those interested in constructing on, adjacent, over, or under Metro ROW, non-revenue property, or transit facilities. Developers and other Third Parties should familiarize themselves with these resources and keep in mind common adjacency concerns when planning a project.
2. **Contact Metro early during design process:** Metro welcomes the opportunity to provide feedback early in project design, allowing for detection and resolution of important adjacency issues, identification of urban design and system integration opportunities, and facilitation of permit approval. Metro encourages project submittal through the online [In-Take Form](#) to begin consultation.
3. **Maintain communication:** Frequent communication with Metro during project design and construction will reinforce relationships and allow for timely project completion. Contact us at [devreview@metro.net](mailto:devreview@metro.net) or at 213.418.3484.

## Best Practices for Local Jurisdiction Notification

To improve communication between Metro and the development community, Metro suggests that local jurisdictions take the following steps to notify property owners of coordination needs for properties adjacent to Metro ROW by:

- **Updating GIS and parcel data:** Integrate Metro ROW files into the City/County GIS and/or Google Earth Files for key departments (e.g. Planning, Public Works, Building & Safety) to notify staff of Metro adjacency and need for coordination during development approval process. Download Metro's ROW files [here](#).
- **Flag Parcels:** Create an overlay zone as part of local Specific Plan(s) and/or Zoning Ordinance(s) to tag parcels that are within 100 feet Metro ROW and require coordination with Metro early during the development process [e.g. City of Los Angeles Zone Information and Map Access System (ZI-1117)].
- **Provide Resources:** Direct all property owners and developers interested in parcels within 100 feet of Metro ROW to Metro's resources (e.g. website, Handbook).





Metro

Downtown  
Santa  
Monica







# Site Plan & Conceptual Design

# Site Plan & Conceptual Design

## 1.1 Supporting Transit Oriented Communities

Transit-oriented communities (TOCs) are places that, by their design, make it more convenient to take transit, walk, bike or roll than to drive. By working closely with the development community and local jurisdictions, Metro seeks to ensure safe construction near Metro facilities and improve compatibility with adjacent development to increase transit ridership.

**RECOMMENDATION:** Consider site planning and building design strategies to that support transit ridership, such as:

- Leveraging planning policies and development incentives to design a more compelling project that capitalizes on transit adjacency and economy of scales.
- Programming a mix of uses to create lively, vibrant places that are active day and night.
- Utilizing Metro policies and programs that support a healthy, sustainable, and welcoming environment around transit service and facilities.
- Prioritizing pedestrian-scaled elements to create spaces that are comfortable, safe, and enjoyable.
- Activating ground floor with retail and outdoor seating/activities to bring life to the public environment.
- Reducing and screening parking to focus on pedestrian activity.
- Incorporating environmental design elements that help reduce crime (e.g. windows and doors that face public spaces, lighting).



*The Wilshire/Vermont Metro Joint Development project leveraged existing transit infrastructure to catalyze a dynamic and accessible urban environment. This project accommodates portal access into the Metro Rail system and on-street bus facilities.*



## 1.2 Enhancing Access to Transit

Metro seeks to create a comprehensive, integrated transportation network and supports infrastructure and design that allows safe and convenient access to its multi-modal services. Projects in close proximity to Metro's services and facilities present an opportunity to enhance the public realm and connections to/from these services for transit riders as well as users of the developments.

**RECOMMENDATION:** Design projects with transit access in mind. Project teams should capitalize on the opportunity to improve the built environment and enhance the public realm for pedestrians, bicyclists, persons with disabilities, seniors, children, and users of green modes. Metro recommends that projects:

- Orient major entrances to transit service, making access and travel safe, intuitive, and convenient.
- Plan for a continuous canopy of shade trees along all public right-of-way frontages to improve pedestrian comfort to transit facilities.
- Add pedestrian lighting along paths to transit facilities and nearby destinations.
- Integrate wayfinding and signage into project design.
- Enhance nearby crosswalks and ramps.
- Ensure new walkways and sidewalks are clear of any obstructions, including utilities, traffic control devices, trees, and furniture.
- Design for seamless, multi-modal pedestrian connections, making access easy, direct, and comfortable.



*The City of Santa Monica leveraged investments in rail transit and reconfigured Colorado Avenue to form a multi-modal first/last mile gateway to the waterfront from the Downtown Santa Monica Station. Photo by PWP Landscape Architecture*

# Site Plan & Conceptual Design

## 1.3 Building Setback

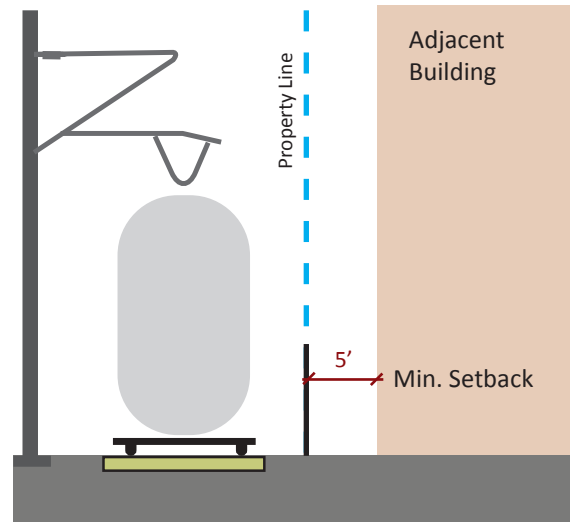
Buildings and structures with a zero lot setback that closely abut Metro ROW can pose concerns to Metro during construction. Encroachment onto Metro property to construct or maintain buildings is strongly discouraged as this presents safety hazards and may disrupt transit service and/or damage Metro infrastructure.

**RECOMMENDATION:** Include a minimum setback of five (5) feet from the property line to building facade to accommodate the construction and maintenance of structures without the need to encroach upon Metro property. As local jurisdictions also have building setback requirements, new developments should comply with the greater of the two requirements.

Entry into the ROW by parties other than Metro and its affiliated partners requires written approval. Should construction or maintenance of a development necessitate temporary or ongoing access to Metro ROW, a Metro Right of Entry Permit must be requested and obtained from Metro Real Estate for every instance access is required. Permission to enter the ROW is granted solely at Metro's discretion.

Coordination between property owners of fences, walls, and other barriers along property line is recommended. See Section 1.5.

Refer to Section 3.2 – Track Access and Safety for additional information pertaining to ROW access in preparation for construction activities.



*A minimum setback of five (5) feet between an adjacent structure and Metro ROW is strongly encouraged to allow project construction and ongoing maintenance without encroaching on Metro property.*

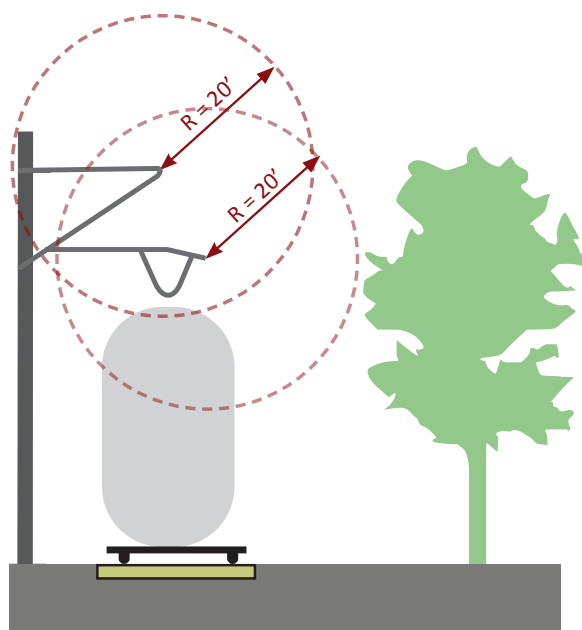


## 1.4 Overhead Catenary System (OCS) Clearance

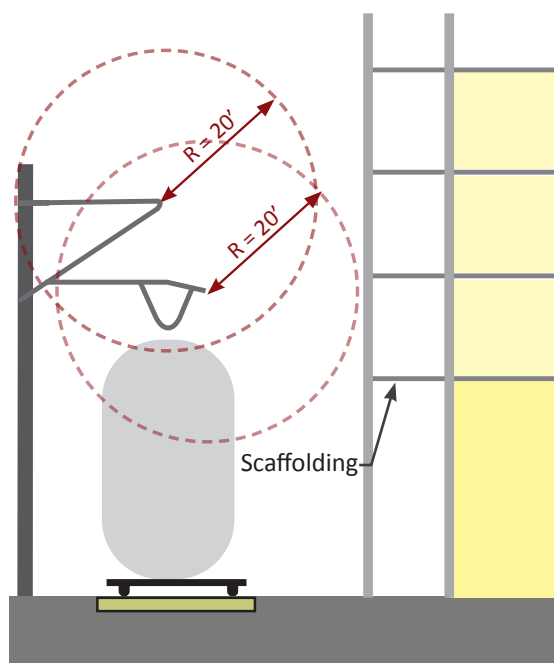
Landscaping and tree canopies can grow into the OCS above light rail lines, creating electrical safety hazards as well as visual and physical impediments for trains. Building appurtenances facing rail ROW, such as balconies, may also pose safety concerns to Metro operations as objects could fall onto the OCS.

**RECOMMENDATION:** Design project elements facing the ROW to avoid potential conflicts with Metro transit vehicles and infrastructure. Metro recommends that projects:

- Plan for landscape maintenance from private property and prevent growth into Metro ROW. Property owners will not be permitted to access Metro property to maintain private development.
- Design buildings such that balconies do not provide building users direct access to Metro ROW.
- Maintain building appurtenances and landscaping at a minimum distance of ten (10) feet from the OCS and support structures. If Transmission Power (TP) feeder cable is present, twenty (20) feet from the OCS and support structures is required. Different standards will apply for Metro Trolley Wires, Feeder Cables (wires) and Span Wires.



*Adjacent structures and landscaping should be sited and maintained to avoid conflicts with the rail OCS.*



*Scaffolding and construction equipment should be staged to avoid conflicts with the rail OCS.*

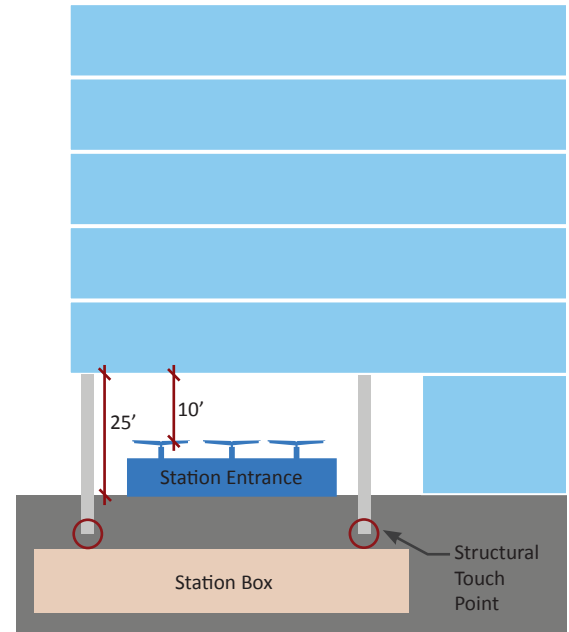
# Site Plan & Conceptual Design

## 1.5 Underground Station Portal Clearance

Metro encourages transit-oriented development. Where development is planned above station entrances, close coordination is needed for structural safety as well as access for patrons, operations, and maintenance. Below are key design rules of thumb for development planned to cantilever over an entrance to an underground Metro Rail station.

### RECOMMENDATION:

1. Preserve 25 feet clearance at minimum from plaza grade and the building structure above.
2. Preserve 10 feet clearance at minimum between portal roof and building structure above.
3. Coordinate structural support system and touchdown points to ensure a safe transfer of the building loads above the station portal.
4. Coordinate placement of structural columns and amenities (e.g. signage, lighting, furnishings) at plaza level to facilitate direct and safe connections for people of all mobile abilities to and from station entrance(s).
5. Develop a maintenance plan for the plaza in coordination with Metro.



*Projects that propose to cantilever over Metro subway portals require close coordination with Metro Engineering.*



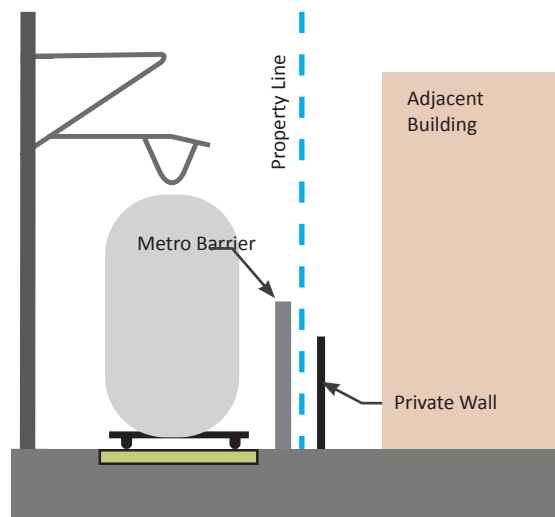
## 1.6 Shared Barrier Construction & Maintenance

In areas where Metro ROW abuts private property, barrier construction and maintenance responsibilities can be a point of contention with property owners. When double barriers are constructed, the gap created between the Metro-constructed fence and a private property owner's fence can accumulate trash and make regular maintenance challenging without accessing the other party's property.

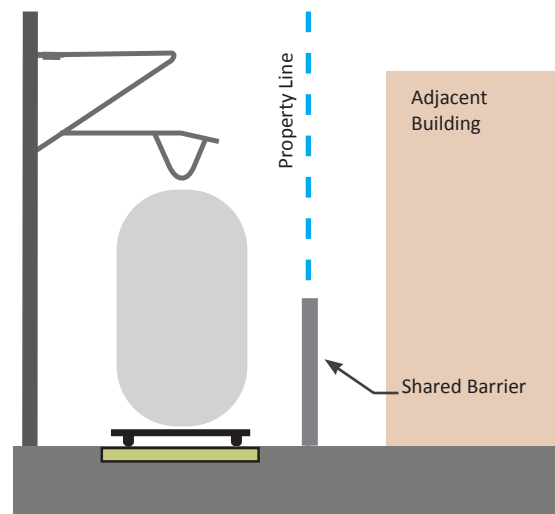
**RECOMMENDATION:** Coordinate with Metro Real Estate to create a single barrier condition along the ROW property line. With an understanding that existing conditions along ROW boundaries vary throughout LA County, Metro recommends the following, in order of preference:

- **Enhance existing Metro barrier:** if structural capacity allows, private property owners and developers should consider physically affixing improvements onto and building upon Metro's existing barrier. Metro is amenable to barrier enhancements such as increasing barrier height and allowing private property owners to apply architectural finishes to their side of Metro's barrier.
- **Replace existing barrier(s):** if conditions are not desirable, remove and replace any existing barrier(s), including Metro's, with a new single "shared" barrier built on the property line.

Metro is amenable to sharing costs for certain improvements that allow for clarity in responsibilities and adequate ongoing maintenance from adjacent property owners without entering Metro's property. Metro Real Estate should be contacted with case-specific questions and will need to approve shared barrier design, shared financing, and construction.



*Double barrier conditions allow trash accumulation and create maintenance challenges for Metro and adjacent property owners.*



*Metro prefers a single barrier condition along its ROW property line.*

# Site Plan & Conceptual Design

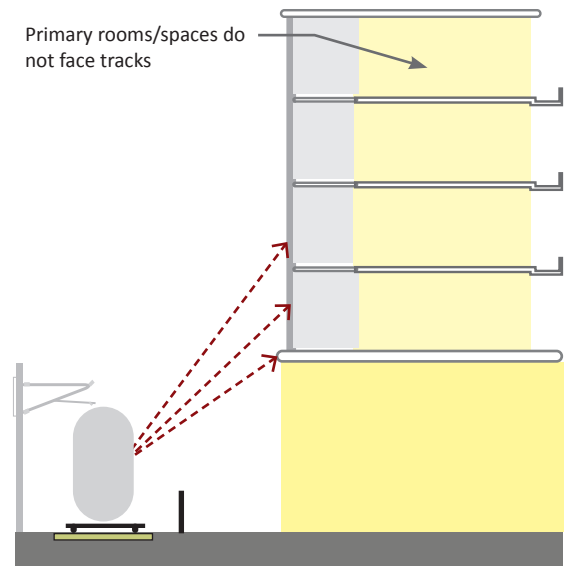
## 1.7 Project Orientation & Noise Mitigation

Metro may operate in and out of revenue service 24 hours per day, every day of the year, which can create noise and vibration (i.e. horns, power washing). Transit service and maintenance schedules cannot be altered to avoid noise for adjacent developments. However, noise and vibration impacts can be reduced through building design and orientation.

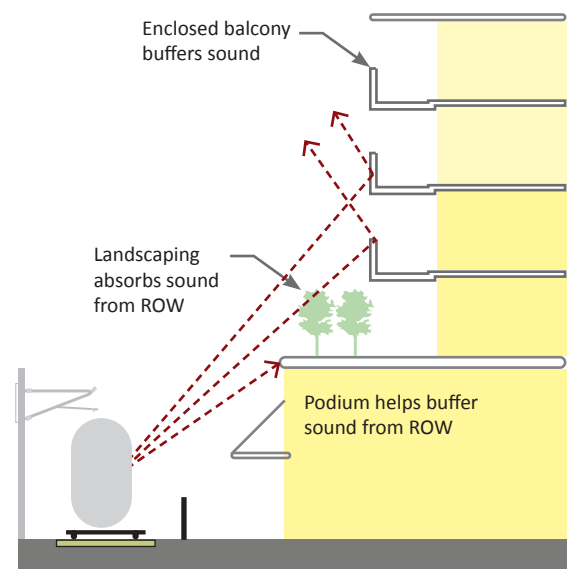
**RECOMMENDATION:** Use building orientation, programming, and design techniques to reduce noise and vibration for buildings along Metro ROW:

- Locate secondary or “back of house” rooms (e.g. bathrooms, stairways, laundry rooms) along ROW, rather than primary living spaces that are noise sensitive (e.g. bedrooms and family rooms).
- Use upper level setbacks and locate living spaces away from ROW.
- Enclose balconies.
- Install double-pane windows.
- Include language disclosing potential for noise, vibration, and other impacts due to transit proximity in terms and conditions for building lease or sale agreements to protect building owners/sellers from tenant/buyer complaints.

Developers are responsible for any noise mitigation required, which may include engineering designs for mitigation recommended by Metro or otherwise required by local municipalities. A recorded Noise Easement Deed in favor of Metro may be required for projects within 100 feet of Metro ROW to ensure notification to tenants and owners of any proximity issues.



*Building orientation can be designed to face away from tracks, reducing the noise and vibration impacts.*



*Strategic placement of podiums and upper-level setbacks on developments near Metro ROW can reduce noise and vibration impacts.*





## 1.8 At-Grade Rail Crossings

New development is likely to increase pedestrian activity at rail crossings. Safety enhancements may be needed to upgrade existing rail crossings to better protect pedestrians.

**RECOMMENDATION:** Coordinate with Metro, the California Public Utilities Commission (CPUC), and any other transit operators using the crossing (e.g. Metrolink) to determine if safety enhancements are needed for nearby rail crossings.

While Metro owns and operates the rail ROW, the CPUC regulates all rail crossings. Contact the CPUC early in the design process to determine if they will require any upgrades to existing rail crossings. The CPUC may request to review development plans and hold a site visit to understand future pedestrian activity. Metro's Corporate Safety Department can support the developer in coordination with the CPUC.



*Gates and pedestrian arms are common types of safety elements for pedestrians at rail crossings.*



*Safety elements of a gate and pedestrian arms have been constructed at the Monrovia Station.*

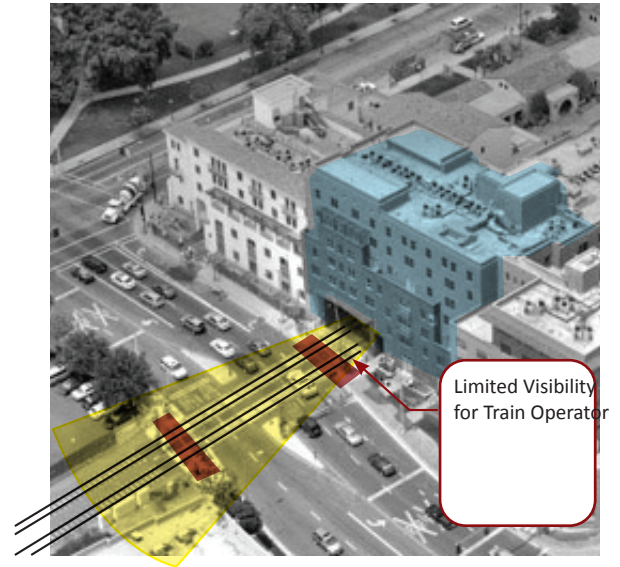
# Site Plan & Conceptual Design

## 1.9 Sight-Lines at Crossings

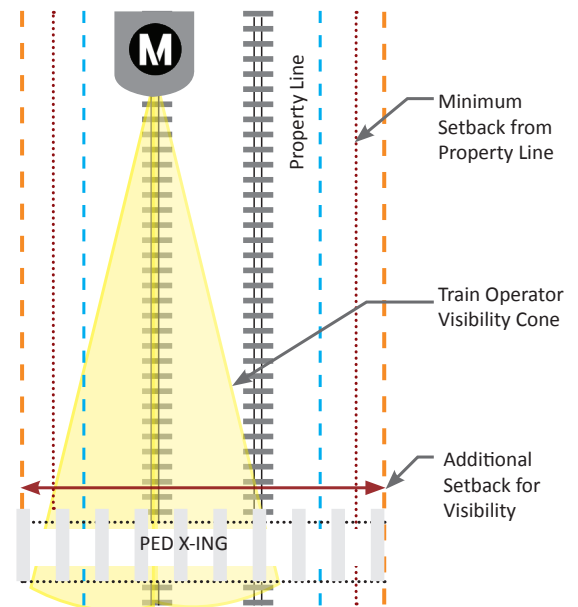
Developments adjacent to Metro ROW can present visual barriers to transit operators approaching vehicular and pedestrian crossings. Buildings and structures in close proximity to transit corridors can reduce sight-lines and create blind corners where operators cannot see pedestrians. This requires operations to reduce train speeds, which decreases efficiency of transit service.

**RECOMMENDATION:** Design buildings to maximize transit service sight-lines at crossings, leaving a clear cone of visibility to oncoming vehicles and pedestrians.

Metro Rail Operations will review, provide guidance, and determine the extent of operator visibility for safe operations. If the building envelope overlaps with the visibility cone near pedestrian and vehicular crossings, a building setback may be necessary to ensure safe transit service. The cone of visibility at crossings and required setback will be determined based on vehicle approach speed.



*Limited sight-lines for trains approaching street crossings create unsafe conditions.*



*Visibility cones allow train operators to respond to safety hazards.*

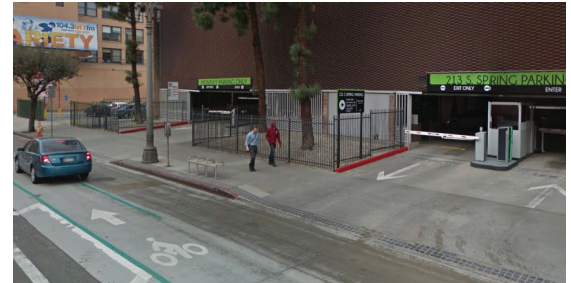


## 1.10 Driveway/Access Management

Driveways adjacent to on-street bus stops can create conflict for pedestrians walking to/from or waiting for transit. Additionally, driveways accessing parking lots and loading zones at project sites near Metro Rail and BRT crossings can create queuing issues along city streets and put vehicles in close proximity to fast moving trains and buses, which pose safety concerns.

**RECOMMENDATION:** Site driveways and other vehicular entrances to avoid conflicts with pedestrians, bicycles, and transit vehicles by:

- Placing driveways along side streets and alleys, away from on-street bus stops and transit crossings to minimize safety conflicts between active ROW, transit vehicles, and people, as well as queuing on streets.
- Locating vehicular driveways away from transit crossings or areas that are likely to be used as waiting areas for transit services.
- Placing loading docks away from sidewalks where transit bus stop activity is/will be present.
- Consolidating vehicular entrances and reduce width of driveways.
- Using speed tables to slow entering/exiting automobiles near pedestrians.
- Separating pedestrian walkways to minimize conflict with vehicles.
- Encouraging safe non-motorized travel.



*Driveways in close proximity to each other compromise safety for those walking to/from transit and increase the potential for vehicle-pedestrian conflicts.*

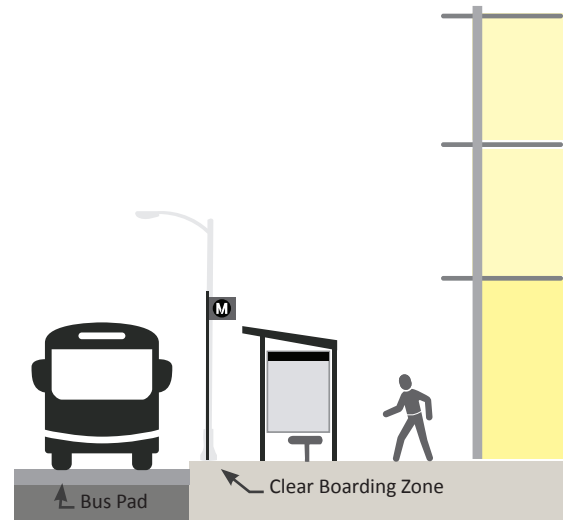
# Site Plan & Conceptual Design

## 1.11 Bus Stop & Zones Design

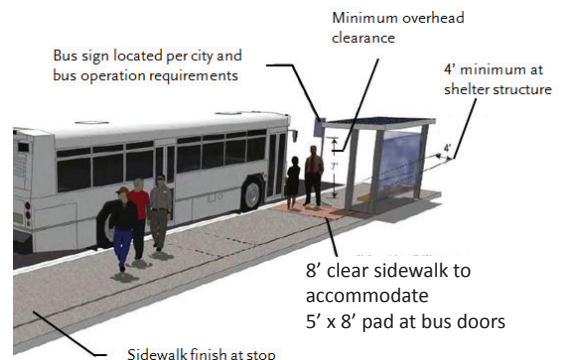
Metro Bus serves over 15,000 bus stops throughout the diverse landscape that is LA County. Typically located on sidewalks within public right-of-way owned and maintained by local jurisdictions, existing bus stop conditions vary from well-lit and sheltered spaces to uncomfortable and unwelcoming zones. Metro is interested in working with developers and local jurisdictions to create a vibrant public realm around new developments by strengthening multi-modal access to/from Metro transit stops and enhancing the pedestrian experience.

**RECOMMENDATION:** When designing around existing or proposed bus stops:

- Review Metro's Transit Service Policy, which provides standards for design and operation of bus stops and zones for near-side, far-side, and mid-block stops.
- Review Metro's Transfers Design Guide for more information at <https://www.metro.net/projects/station-design-projects/>
- Accommodate 5' x 8' landing pads at bus doors (front and back door, which are typically 23 to 25 feet apart).
- Locate streetscape elements (e.g. tree planters, street lamps, benches, shelters, trash receptacles and newspaper stands) outside of bus door zones to protect transit access and ensure a clear path of travel.
- Install a concrete bus pad within each bus stop zone to avoid street asphalt damage.
- Replace stand-alone bus stop signs with bus shelters that include benches and adequate lighting.
- Design wide sidewalks (15' preferred) that accommodate bus landing pads as well as street furniture, landscape, and user travel space.
- Consider tree species, height, and canopy shape (higher than 14' preferred) to avoid vehicle conflicts at bus stops. Trees should be set back from the curb and adequately maintained to prevent visual and physical impediments for buses when trees reach maturity. Avoid planting of trees that have an invasive and shallow root system.



*A concrete bus pad should be located at bus stops and bus shelters should be located along sidewalks to ensure an accessible path of travel to a clear boarding area.*



*Well-designed and accessible bus stops are beneficial amenities for both transit riders and users of adjacent developments.*



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**GORBEL 2.5**  
ROBINS, NEW YORK, U.S.A.  
DANGER! DO NOT  
EXCEED RATED CAPACITY







# **Engineering & Technical Review**

# Engineering & Technical Review

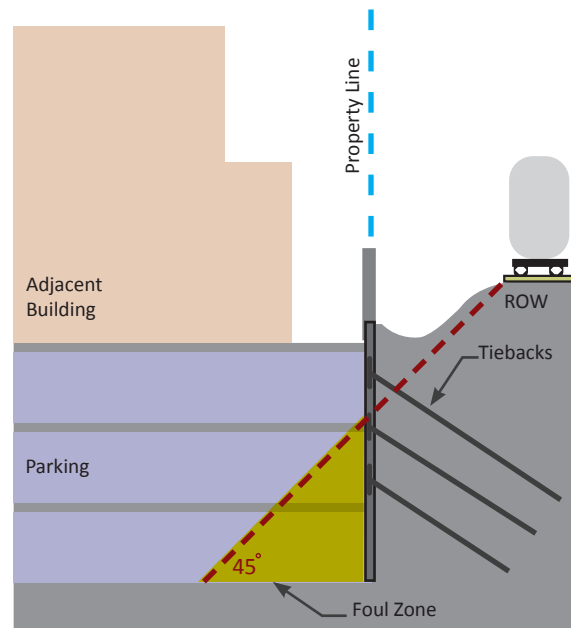
## 2.1 Excavation Support System Design

Excavation near Metro ROW has the potential to disturb adjoining soils and jeopardize support of existing Metro infrastructure. Any excavation which occurs within the geotechnical foul zone relative to Metro infrastructure is subject to Metro review and approval and meet Cal/OSHA requirements. This foul zone or geotechnical zone of influence shall be defined as the area below a track-way as measured from a 45-degree angle from the edge of the rail track ballast. Construction within this vulnerable area poses a potential risk to Metro service and requires additional Metro Engineering review.

**RECOMMENDATION:** Coordinate with Metro Engineering staff for review and approval of the excavation support system drawings and calculations prior to the start of excavation or construction. Tiebacks encroaching into Metro ROW may require a tieback easement or license, at Metro's discretion.

Any excavation/shoring within Metrolink operated and maintained ROW will require compliance with SCRRRA Engineering standards and guidelines.

See page 7 for a sample section showing Metro adjacent conditions.



*An underground structure located within the ROW foul zone would require additional review by Metro.*





## 2.2 Proximity to Tunnels & Underground Infrastructure

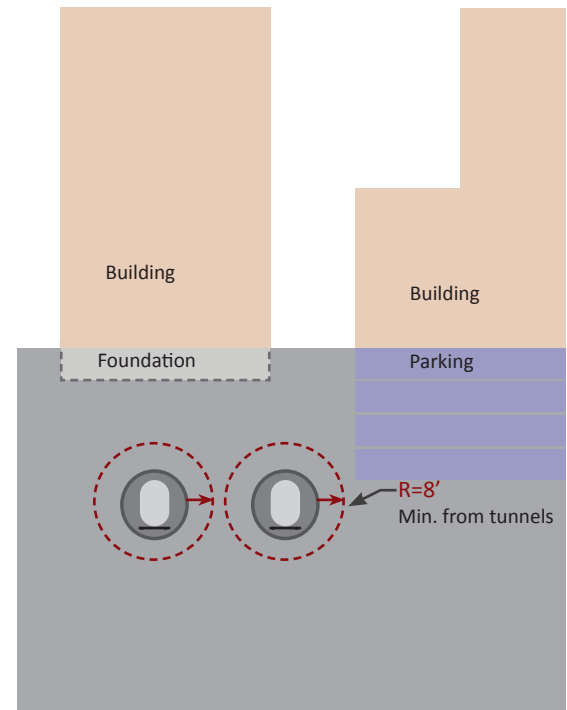
Construction adjacent to, over, or below underground Metro facilities (tunnels, stations and appendages) is of great concern and should be coordinated closely with Metro Engineering.

**RECOMMENDATION:** Coordinate with Metro early in the design process when proposing to build near underground Metro infrastructure. Metro typically seeks to maintain a minimum eight (8) foot clearance from existing Metro facilities to new construction (shoring or tiebacks). It will be incumbent upon the developer to demonstrate, to Metro's satisfaction, that both the temporary support of construction and the permanent works do not adversely affect the structural integrity, safety, or continued efficient operation of Metro facilities.

Dependent on the nature of the adjacent construction, Metro will need to review the geotechnical report, structural foundation plans, sections, shoring plan sections and calculations.

Metro may require monitoring where such work will either increase or decrease the existing overburden (i.e. weight) to which the tunnels or facilities are subjected. When required, the monitoring will serve as an early indication of excessive structural strain or movement. See Section 3.4, Excavation Drilling/Monitoring for additional information regarding monitoring requirements.

See page 7 for a sample section showing Metro adjacent conditions.

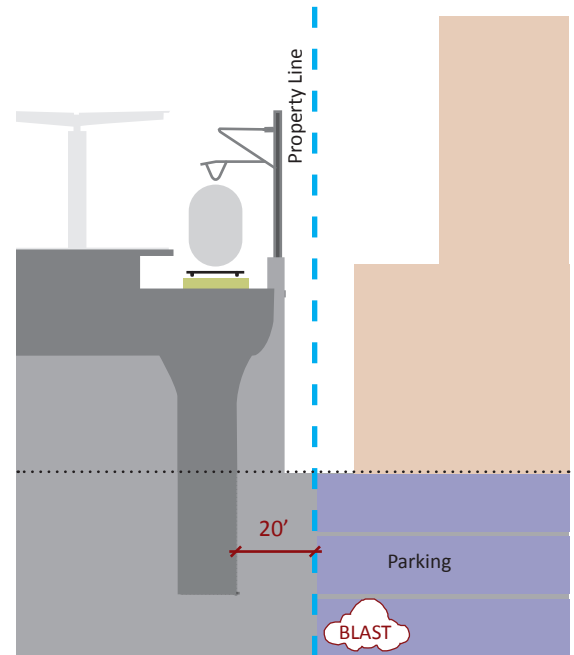


*Adjacent project structures in close proximity to underground Metro infrastructure will require additional review by Metro.*

## 2.3 Protection from Explosion/Blast

Metro is obligated to ensure the safety of public transit infrastructure from potential explosive sources which could originate from adjacent underground structures or from at-grade locations, situated below elevated guideways or near stations. Blast protection setbacks or mitigation may be required for large projects constructed near critical Metro facilities.

**RECOMMENDATION:** Avoid locating underground parking or basement structures within twenty (20) feet from an existing Metro tunnel or facility (exterior face of wall to exterior face of wall). Adjacent developments within this 20-foot envelope may be required to submit a Threat Assessment and Blast/Explosion Study for Metro review and approval.



*An underground structure proposed within twenty (20) feet of a Metro structure may require a Threat Assessment and Blast/Explosion Study.*

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# Construction Safety & Management

# Construction Safety & Management

## 3.1 Pre-Construction Coordination

Metro is concerned with impacts to service requiring rail single line tracking, line closures, speed restrictions, and bus bridging occurring as a result of adjacent project construction. Projects that will require work over, under, adjacent, or on Metro property or ROW and include operation of machinery, scaffolding, or any other potentially hazardous work are subject to evaluation in preparation for and during construction to maintain safe transit operations and passenger well-being.

**RECOMMENDATION:** Following an initial screening of the project, Metro may determine that additional on-site coordination may be necessary. Dependent on the nature of the adjacent construction, developers may be requested to perform the following as determined on a case-by-case basis:

- Submit a construction work plan and related project drawings and specifications for Metro review.
- Submit a contingency plan, show proof of insurance coverage, and issue current certificates.
- Provide documentation of contractor qualifications.
- Complete pre-construction surveys, perform baseline readings, and install movement instrumentation.
- Complete readiness review and perform practice run of transit service shutdown per contingency plan.
- Designate a ROW observer or other safety personnel and an inspector from the project's construction team.
- Establish a coordination process for access and work in or adjacent to ROW for the duration of construction.

**Project teams will be responsible for the costs of adverse impacts to Metro transit operations caused by work on adjacent developments, including remedial work to repair damage to Metro property, facilities, or systems.** Additionally, a Construction Monitoring fee may be assessed based on an estimate of required level of effort provided by Metro.

All projects adjacent to Metrolink infrastructure will require compliance with SCRRRA Engineering Standards and Guidelines.



*Metro may need to monitor development construction near Metro facilities.*



## 3.2 Track Access and Safety

Permission from Metro is required to enter Metro property for rail construction and maintenance along, above, or under Metro ROW as these activities can interfere with Metro utilities and service and pose a safety hazard to construction teams and transit riders. Track access is solely at Metro's discretion and is discouraged to prevent electrocution and collisions with construction workers or machines.

**RECOMMENDATION:** Obtain and/or complete the following to work in or adjacent to Metro Rail ROW:

1. **Construction Work Plan:** Dependent on the nature of adjacent construction, Metro may request a construction work plan, which describes means and methods and other construction plan details, to ensure the safety of transit operators and riders.
2. **Safety Training:** All members of the project construction team will be required to attend Metro Rail Safety Training before commencing work activity. Training provides resources and procedures when working near active rail ROW.
3. **Right of Entry Permit/Temporary Construction Easement:** All access to and activity on Metro property, including easements necessary for construction of adjacent projects, must be approved through a Right-of-Entry Permit and/or a Temporary Construction Easement obtained from Metro Real Estate and may require a fee.
4. **Track Allocation:** All work on Metro Rail ROW must receive prior approval from Metro Rail Operations Control. Track Allocation identifies, reserves, and requests changes to normal operations for a specific track section, line, station, location, or piece of equipment to allow for safe use by a non-Metro entity. If adjacent construction is planned in close proximity to active ROW, flaggers must be used to ensure safety of construction workers and transit riders.



*Trained flaggers ensure the safe crossing of pedestrians and workers of an adjacent development.*

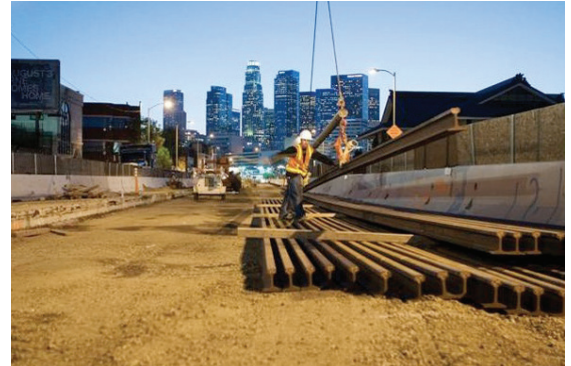
# Construction Safety & Management

## 3.3 Construction Hours

Building near active Metro ROW poses safety concerns and may require limiting hours of construction which impact Metro ROW to night or off-peak hours so as not to interfere with Metro revenue service. To maintain public safety and access for Metro riders, construction should be planned, scheduled, and carried out in a way to avoid impacts to Metro service and maintenance.

**RECOMMENDATION:** In addition to receiving necessary construction approvals from the local jurisdiction, all construction work on or in close proximity to Metro ROW must be scheduled through the Track Allocation Process, detailed in Section 3.2.

Metro prefers that adjacent construction with potential to impact normal, continuous Metro operations take place during non-revenue hours (approximately 1am-4am) or during non-peak hours to minimize impacts to service. The developer may be responsible for additional operating costs resulting from disruption to normal Metro service.



*Construction during approved hours ensures the steady progress of adjacent development construction and minimizes impacts to Metro's transit service.*





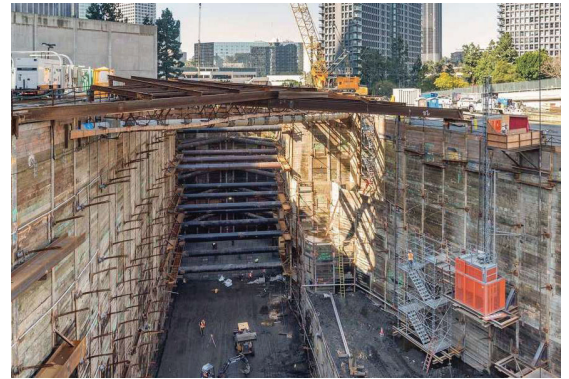
### 3.4 Excavation/Drilling Monitoring

Excavation is among the most hazardous construction activities and can pose threats to the structural integrity of Metro's transit infrastructure.

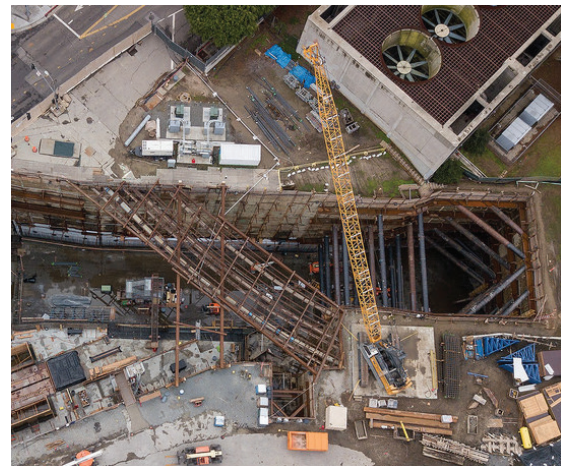
**RECOMMENDATION:** Coordinate with Metro Engineering to review and approve excavation and shoring plans during design and development, and well in advance of construction (see Sections 2.1 and 2.2).

Geotechnical instrumentation and monitoring will be required for all excavations occurring within Metro's geotechnical zone of influence, where there is potential for adversely affecting the safe and efficient operation of transit vehicles. Monitoring of Metro facilities due to adjacent construction may include the following as determined on a case-by-case basis:

- Pre- and post-construction condition surveys
- Extensometers
- Inclinometers
- Settlement reference points
- Tilt-meters
- Groundwater observation wells
- Movement arrays
- Vibration monitoring



*Excavation and shoring plans must be reviewed by Metro to ensure structural compatibility with Metro infrastructure and safety during adjacent development construction.*



*A soldier pile wall used for Regional Connector station at 2nd/Hope.*

# Construction Safety & Management

## 3.5 Crane Operations

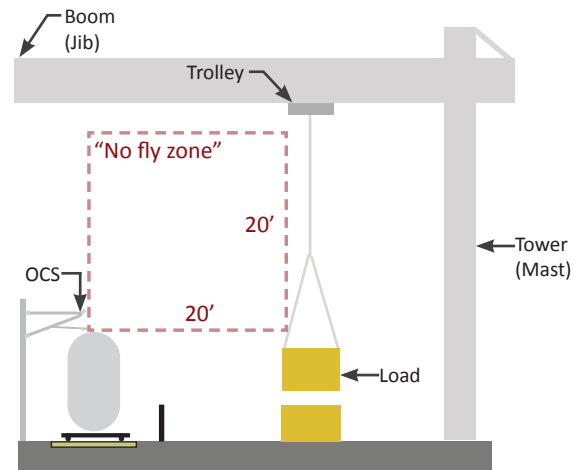
Construction activities adjacent to Metro ROW may require moving large, heavy loads of building materials and machinery using cranes. Cranes referenced here include all power-operated equipment that can hoist, lower, and horizontally move a suspended load. To ensure safety for Metro riders, operators, and transit facilities, crane operations adjacent to Metro ROW must follow the safety regulations and precautions below and are subject to California Occupational Safety and Health Administration (Cal/OSHA) standards.

### RECOMMENDATION:

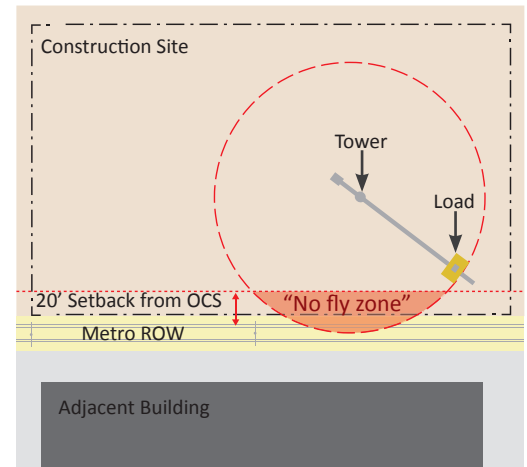
Coordinate with Metro to discuss construction methods and confirm if a crane work plan is required. Generally, crane safety near Metro's ROW and facilities largely depends on the following factors: 1) Metro's operational hours and 2) swinging a load over or near Metro power lines and facilities. Note:

1. **Clearance:** A crane boom may travel over energized Metro OCS only if it maintains a vertical 20-foot clearance and the load maintain a horizontal 20-foot clearance.
2. **Power:** Swinging a crane boom with a load over Metro facilities or passenger areas is strictly prohibited during revenue hours. To swing a load in the "no fly zone" (see diagrams to right), the construction team must coordinate with Metro to de-energize the OCS.
3. **Weathering:** When not in use, the crane boom may swing 360 degrees with the movement of the wind, including over energized Metro OCS, only if the trolley is fully retracted towards the crane tower and not carrying any loads.
4. **Process:** Developers and contractors must attend Metro Track Allocation (detailed in Section 3.2) to determine if Metro staff support is necessary during crane erection and load movement.
5. **Permit:** Developers must apply for a Metro Right-of-Entry permit to swing over Metro facilities.

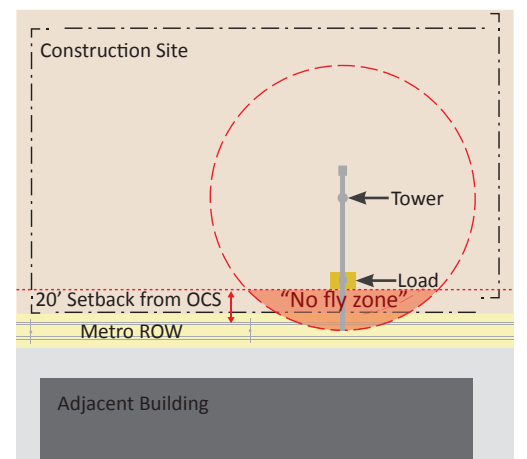
**Project teams will bear all costs associated with impacts to Metro Rail operations and maintenance.**



*Cranes and construction equipment should be staged to avoid conflicts with the rail OCS.*



*Plan View: Crane swing and load are restricted near Metro ROW.*



*Plan View: While crane boom swings over "no fly zone," the trolley and load are retracted to maintain clearance from OCS.*



### 3.6 Construction Barriers & Overhead Protection

During construction, falling objects can damage Metro facilities and pose a safety concern to the riders accessing them.

**RECOMMENDATION:** Erect vertical construction barriers and overhead protection compliant with Metro and Cal/OSHA requirements to prevent objects from falling into Metro ROW or areas designed for public access to Metro facilities. A protection barrier shall be constructed to cover the full height of an adjacent project and overhead protection from falling objects shall be provided over Metro ROW as necessary. Erection of the construction barriers and overhead protection for these areas shall be done during Metro non-revenue hours.



*Overhead protection is required when moving heavy objects over Metro ROW or in areas designated for public use.*



*Constructed above is a wooden box over the entrance portal for overhead protection at the 4th/Hill Station.*

# Construction Safety & Management

## 3.7 Pedestrian & Emergency Access

Metro's riders rely on the consistency and reliability of access and wayfinding to and from stations, stops, and facilities. Construction on adjacent property must not obstruct pedestrian access, fire department access, emergency egress, or otherwise present a safety hazard to Metro operations, its employees, riders, and the general public. Fire access and safe escape routes within all Metro stations, stops, and facilities must be maintained at all times.

**RECOMMENDATION:** Ensure pedestrian and emergency access from Metro stations, stops, and transit facilities is compliant with the Americans with Disabilities Act (ADA) and maintained during construction:

- Temporary fences, barricades, and lighting should be installed and watchmen provided for the protection of public travel, the construction site, adjacent public spaces, and existing Metro facilities.
- Temporary signage should be installed where necessary and in compliance with the latest California Manual on Uniform Traffic Control Devices (MUTCD) and in coordination with Metro Art and Design Standards.
- Emergency exits shall be provided and be clear of obstructions at all times.
- Access shall be maintained for utilities such as fire hydrants, stand pipes/connections, and fire alarm boxes as well as Metro-specific infrastructure such as fan and vent shafts.



*Sidewalk access is blocked for a construction project, forcing pedestrians into the street or to use less direct paths to the Metro facility.*



### 3.8 Impacts to Bus Routes & Stops

During construction, bus stop zones and routes may need to be temporarily relocated. Metro needs to be informed of activities that require stop relocation or route adjustments in order to ensure uninterrupted service.

**RECOMMENDATION:** During construction, maintain or relocate existing bus stops consistent with the needs of Metro Bus Operations. Design of temporary and permanent bus stops and surrounding sidewalk areas must be compliant with the ADA and allow passengers with disabilities a clear path of travel to the transit service. Existing bus stops must be maintained as part of the final project. Metro Bus Operations Control Special Events Department and Metro Stops & Zones Department should be contacted at least 30 days before initiating construction activities.



*Temporary and permanent relocation of bus stops and layover zones will require coordination between developers, Metro, and other municipal bus operators and local jurisdictions.*



# Construction Safety & Management

## 3.9 Utility Coordination

Construction has the potential to interrupt utilities that Metro relies on for safe operations and maintenance. Utilities of concern to Metro include, but are not limited to, condenser water piping, potable/fire water, storm and sanitary sewer lines, and electrical/telecommunication services.

**RECOMMENDATION:** Coordinate with Metro Real Estate during project design to gauge temporary and permanent utility impacts and avoid conflicts during construction.

The contractor shall protect existing above-ground and underground Metro utilities during construction and coordinate with Metro to receive written approval for any utilities pertinent to Metro facilities that may be used, interrupted, or disturbed.

When electrical power outages or support functions are required, approval must be obtained through Metro Track Allocation in coordination with Metro Real Estate for a Right of Entry Permit.

To begin coordination with Metro Real Estate, visit [www.metro.net/devreview](http://www.metro.net/devreview) and select the drop-down “Utility Project Coordination.”



*Coordination of underground utilities is critical to safely and efficiently operate Metro service.*



### 3.10 Air Quality & Ventilation Protection

Hot or foul air, fumes, smoke, steam, and dust from adjacent construction activities can negatively impact Metro facilities, service, and users.

**RECOMMENDATION:** Ensure that hot or foul air, fumes, smoke, and steam from adjacent facilities are discharged beyond 40 feet from existing Metro facilities, including but not limited to ventilation system intake shafts and station entrances. Should fumes be discharged within 40 feet of Metro intake shafts, a protection panel around each shaft shall be required.



*A worker breaks up concrete creating a cloud of silica dust.*

# Glossary

## **Cone of Visibility**

A conical space at the front of moving transit vehicles allowing for clear visibility of travel way and/or conflicts.

## **Construction Work Plan (CWP)**

Project management document outlining the definition of work tasks, choice of technology, estimation of required resources and duration of individual tasks, and identification of interactions among the different work tasks.

## **Flagger/Flagman**

Person who controls traffic on and through a construction project. Flaggers must be trained and certified by Metro Rail Operations prior to any work commencing in or adjacent to Metro ROW.

## **Geotechnical Foul Zone**

Area below a track-way as measured from a 45-degree angle from the edge of the rail track ballast.

## **Guideway**

A channel, track, or structure along which a transit vehicle moves.

## **Heavy Rail Transit (HRT)**

Metro HRT systems include exclusive ROW (mostly subway) trains up to six (6) cars long (450') and utilize a contact rail for traction power distribution (e.g. Metro Red Line).

## **Joint Development (JD)**

JD is the asset management and real estate development program through which Metro collaborates with developers to build housing, retail, and other amenities on Metro properties near transit, typically through ground lease. JD projects directly link transit riders with destinations and services throughout LA County.

## **Light Rail Transit (LRT)**

Metro LRT systems include exclusive, semi-exclusive, or street ROW trains up to three (3) cars long (270') and utilize OCS for traction power distribution (e.g. Metro Blue Line).

## **Measure R**

Half-cent sales tax for LA County approved in November 2008 to finance new transportation projects and programs. The tax expires in 2039.

## **Measure M**

Half-cent sales tax for LA County approved in November 2016 to fund transportation improvements, operations and programs, and accelerate projects already in the pipeline. The tax will increase to one percent in 2039 when Measure R expires.

## **Metrolink**

A commuter rail system with seven lines throughout Los Angeles, Orange, Riverside, San Bernardino, Ventura, and North San Diego counties governed by the Southern California Regional Rail Authority (SCRRA).

## **Metro Adjacent Construction Design Manual**

Volume III of the Metro Design Criteria & Standards, which outlines the Metro adjacent review procedure as well as operational requirements when constructing over, under, or adjacent to Metro facilities, structures, and property.

## **Metro Bus**

Metro "Local" and "Rapid" bus service runs within the street, typically alongside vehicular traffic, though occasionally in "bus-only" lanes.

## **Metro Bus Rapid Transit (BRT)**

High quality bus service that provides faster and convenient service through the use of dedicated ROW, branded vehicles and stations, high frequency and intelligent transportation systems, all-door boarding, and intersection crossing priority. Metro BRT may run within dedicated ROW or in mixed flow traffic on streets.



**Metro Design Criteria and Standards**

A compilation of documents that govern how Metro transit service and facilities are designed, constructed, operated, and maintained.

**Metro Rail**

Urban rail system serving LA County consisting of six lines, including two subway lines and four light rail lines.

**Metro Rail Design Criteria (MRDC)**

Volume IV of the Metro Design Criteria & Standards which establishes design criteria for preliminary engineering and final design of a Metro Rail Project.

**Metro Transit Oriented Communities**

Land use planning and community development program that seeks to maximize access to transportation as a key organizing principle and promote equity and sustainable living by offering a mix of uses close to transit to support households at all income levels, as well as building densities, parking policies, urban design elements, and first/last mile facilities that support ridership and reduce auto dependency.

**Noise Easement Deed**

Easement granted by property owners abutting Metro ROW acknowledging noise due to transit operations and maintenance.

**Overhead Catenary System (OCS)**

One or more electrified wires situated over a transit ROW that transmit power to light rail trains via pantograph, a current collector mounted on the roof of an electric vehicle. Metro OCS is supported by hollow poles placed between tracks or on the outer edge of parallel tracks.

**Right of Entry Permit**

Written approval granted by Metro Real Estate to enter Metro ROW and property.

**Right of Way (ROW)**

Legal right over property reserved for transportation purposes to construct, protect, maintain and operate transit services.

**Southern California Regional Rail Authority (SCRRA)**

A joint powers authority made up of an 11-member board representing the transportation commissions of Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. SCRRA governs and operates Metrolink service.

**Threat Assessment and Blast/Explosion Study**

Analysis performed when adjacent developments are proposed within twenty (20) feet from an existing Metro tunnel or facility.

**Track Allocation/Work Permit**

Permit granted by Metro Rail Operations Control to allocate a section of track and perform work on or adjacent to Metro Rail ROW. This permit should be submitted for any work that could potentially foul the envelope of a train.

**Wayfinding**

Signs, maps, and other graphic or audible methods used to convey location and directions to travelers.

[metro.net/projects/devreview/](https://metro.net/projects/devreview/)





**Metro**

Los Angeles County  
Metropolitan Transportation Authority

One Gateway Plaza  
Los Angeles, CA 90012-2952

213.922.2000 Tel  
metro.net

June 15, 2021

Cuong Nguyen  
City of Santa Fe Springs  
Planning Department  
11710 East Telegraph Road  
Santa Fe Springs, CA 90670  
Sent by Email: [cuongnguyen@santafesprings.org](mailto:cuongnguyen@santafesprings.org)

RE: City of Santa Fe Springs General Plan Update  
Notice of Preparation of the Environmental Impact Report (EIR)

Dear Mr. Nguyen:

Thank you for coordinating with the Los Angeles County Metropolitan Transportation Authority (Metro) regarding the General Plan Update (Plan) located in the City of Santa Fe Springs (City). Metro is committed to working with local municipalities, developers, and other stakeholders across Los Angeles County on transit-supportive developments to grow ridership, reduce driving, and promote walkable neighborhoods. Transit Oriented Communities (TOCs) are places (such as corridors or neighborhoods) that, by their design, allow people to drive less and access transit more. TOCs maximize equitable access to a multi-modal transit network as a key organizing principle of land use planning and holistic community development.

Per Metro's area of statutory responsibility pursuant to sections 15082(b) and 15086(a) of the Guidelines for Implementation of the California Environmental Quality Act (CEQA: Cal. Code of Regulations, Title 14, Ch. 3), the purpose of this letter is to provide the City with specific detail on the scope and content of environmental information that should be included in the Environmental Impact Report (EIR) for the Plan. Effects of a project on transit systems and infrastructure are within the scope of transportation impacts to be evaluated under CEQA.<sup>1</sup>

### **Project Description**

The Project area is bordered by the unincorporated community of West Whittier-Los Nietos and the cities of Pico Rivera and Whittier to the north; the cities of Downey and Norwalk to the west; the unincorporated community of South Whittier and the City of La Mirada to the east; and the City of Cerritos to the south. The General Plan Update establishes objectives for

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<sup>1</sup> See CEQA Guidelines section 15064.3(a); Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts In CEQA, December 2018, p. 19.

the long-term growth and enhancement of the community. The Plan is a comprehensive revision to the General plan adopted in 1993 and 1994 and includes several new elements.

### **Recommendations for EIR Scope and Content**

The Plan and EIR should include an updated inventory of existing and planned transit service provided by Metro and any other transit operators serving the City. Reference documents that should be used include Metro's 2020 Long Range Transportation Plan, 2021 NextGen Bus Plan, Measure M Expenditure Plan and Measure M Guidelines. The Plan should include policies to enhance access and use of public transit, as recommended below. The EIR should analyze potential impacts to public transit service and facilities. Attention should be given to the L Line (Gold) Eastside Extension, C Line (Green) Extension North as well as the Norwalk/Santa Fe Springs Station, which is served by Metrolink Orange County/91 PV Line.

### **L Line (Gold) Eastside Extension**

Metro is evaluating transit alternatives connecting eastern Los Angeles County to the downtown Los Angeles transit network. The Eastside Phase 2 Transit Corridor project would extend from the current terminus at Atlantic and Pomona. As such, Metro strongly recommends that the Plan and future development in the Plan area continue to be closely coordinated with Metro's Eastside team. For additional information, please see the project website at: [https://www.metro.net/projects/eastside\\_phase2/](https://www.metro.net/projects/eastside_phase2/).

### **Transit Supportive Planning: Recommendations and Resources**

Metro would like to identify the potential synergies associated with transit-oriented communities, and recommend planning resources to aid in the development of the Plan:

1. Transit Supportive Planning Toolkit: Metro strongly recommends that the City review the Transit Supportive Planning Toolkit which identifies 10 elements of transit-supportive places and, applied collectively, has been shown to reduce vehicle miles traveled by establishing community-scaled density, diverse land use mix, combination of affordable housing, and infrastructure projects for pedestrians, bicyclists, and people of all ages and abilities. This resource is available at <https://www.metro.net/projects/tod-toolkit>.
2. Land Use: Metro supports development of commercial and residential properties near transit stations and understands that increasing development near stations represents a mutually beneficial opportunity to increase ridership and enhance transportation options for the users of developments.
3. Transit Connections and Access: Metro strongly encourages the City to include policies in the Plan that help facilitate safe and convenient connections for pedestrians, bicyclists, and transit users to/from bus stops, future rail stations, and nearby destinations. These policies should guide future capital improvements as well as private development to be approved by the City. Policy topics include:

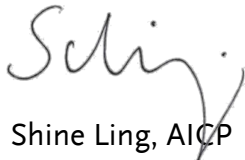
- a. Walkability: The provision of wide sidewalks, pedestrian lighting, a continuous canopy of shade trees, enhanced crosswalks with American with Disabilities Act (ADA) -compliant curb ramps, and other amenities along all public street frontages of a development to improve pedestrian safety and comfort to access transit stations and bus stops. Best practices for Complete Streets should be incorporated where possible.
  - b. Transfer Activity: Best practices that consider and accommodate transfer activity between bus lines that will occur along the sidewalks and public spaces. Metro has completed the Metro Transfers Design Guide, a best practices document on transit improvements. This can be accessed online at <https://www.metro.net/projects/systemwidedesign>.
  - c. Bicycle Use and Micromobility Devices: The provision of adequate short-term bicycle parking, such as ground-level bicycle racks, and secure, access-controlled, enclosed long-term bicycle parking for residents, employees, and guests. Bicycle parking facilities should be designed with best practices in mind, including highly visible siting, effective surveillance, ease to locate, and equipment installation with preferred spacing dimensions, so bicycle parking can be safely and conveniently accessed. Similar provisions for micro-mobility devices are also encouraged.
  - d. First & Last Mile Access: The Plan should address first-last mile connections to transit (particularly to the L Line (Gold) Eastside Extension, C Line (Green) Extension, and Metrolink) and is encouraged to support these connections with wayfinding signage inclusive of all modes of transportation. For reference, please review the First Last Mile Strategic Plan, authored by Metro and the Southern California Association of Governments (SCAG), available on-line at: [http://media.metro.net/docs/sustainability\\_path\\_design\\_guidelines.pdf](http://media.metro.net/docs/sustainability_path_design_guidelines.pdf).
4. Parking: Metro encourages the incorporation of transit-oriented, pedestrian-oriented parking provision strategies such as the reduction or removal of minimum parking requirements and the exploration of shared parking opportunities. These strategies could be pursued to reduce automobile-orientation in design and travel demand.
  5. Wayfinding: Any temporary or permanent wayfinding signage with content referencing Metro services or featuring the Metro brand and/or associated graphics (such as Metro Rail and Bus pictograms) requires review and approval by Metro Signage and Environmental Graphic Design.
  6. Art: Metro encourages the thoughtful integration of art and culture into public spaces and will need to review any proposals for public art and/or placemaking facing a Metro ROW. Please contact Metro Arts & Design staff for additional information.

7. Transit Pass Programs: Metro would like to inform the City of Metro's employer transit pass programs, including the Annual Transit Access Pass (A-TAP), the Employer Pass Program (E-Pass), and Small Employer Pass (SEP) Program. These programs offer efficiencies and group rates that businesses can offer employees as an incentive to utilize public transit. The A-TAP can also be used for residential projects. For more information on these programs, please visit the programs' website at <https://www.metro.net/riding/eapp/>.

If you have any questions regarding this letter, please contact me by phone at 213-922-2671, by email at [DevReview@metro.net](mailto:DevReview@metro.net), or by mail at the following address:

Metro Development Review  
One Gateway Plaza  
MS 99-22-1  
Los Angeles, CA 90012-2952

Sincerely,



Shine Ling, AICP  
Manager, Transit Oriented Communities

Attachments and links:

- Adjacent Development Handbook: <https://www.metro.net/projects/devreview/>



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

SENT VIA E-MAIL:

June 15, 2021

[cuongnguyen@santafesprings.org](mailto:cuongnguyen@santafesprings.org)

Cuong Nguyen, Senior Planner  
City of Santa Fe Springs, Planning Department  
11710 Telegraph Road  
Santa Fe Springs, California 90670

## **Notice of Preparation of a Draft Environmental Impact Report for the Comprehensive General Plan and Targeted Zoning Code Update (Proposed Project)**

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. Our comments are recommendations on the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send a copy of the Draft EIR upon its completion and public release directly to South Coast AQMD as copies of the Draft EIR submitted to the State Clearinghouse are not forwarded. **In addition, please send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all emission calculation spreadsheets, and air quality modeling and health risk assessment input and output files (not PDF files). Any delays in providing all supporting documentation for our review will require additional review time beyond the end of the comment period.**

### **CEQA Air Quality Analysis**

Staff recommends that the Lead Agency use South Coast AQMD's CEQA Air Quality Handbook and website<sup>1</sup> as guidance when preparing the air quality and greenhouse gas analyses. It is also recommended that the Lead Agency use the CalEEMod<sup>2</sup> land use emissions software, which can estimate pollutant emissions from typical land use development and is the only software model maintained by the California Air Pollution Control Officers Association.

South Coast AQMD has developed both regional and localized significance thresholds. South Coast AQMD staff recommends that the Lead Agency quantify criteria pollutant emissions and compare the emissions to South Coast AQMD's CEQA regional pollutant emissions significance thresholds<sup>3</sup> and localized significance thresholds (LSTs)<sup>4</sup> to determine the Proposed Project's air quality impacts. The localized analysis can be conducted by either using the LST screening tables or performing dispersion modeling.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips, and hauling trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers and air pollution control devices), area sources (e.g., solvents and coatings), and

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<sup>1</sup> South Coast AQMD's CEQA Handbook and other resources for preparing air quality analyses can be found at: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>.

<sup>2</sup> CalEEMod is available free of charge at: [www.caleemod.com](http://www.caleemod.com).

<sup>3</sup> South Coast AQMD's CEQA regional pollutant emissions significance thresholds can be found at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

<sup>4</sup> South Coast AQMD's guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA *operational* thresholds to determine the level of significance.

If the Proposed Project generates diesel emissions from long-term construction or attracts diesel-fueled vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment<sup>5</sup>.

The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective*<sup>6</sup> is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process with additional guidance on strategies to reduce air pollution exposure near high-volume roadways available in CARB's technical advisory<sup>7</sup>.

The South Coast AQMD's *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*<sup>8</sup> includes suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. It is recommended that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions.

### **Mitigation Measures**

In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook<sup>1</sup>, South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2016 Air Quality Management Plan<sup>9</sup>, and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy<sup>10</sup>.

South Coast AQMD staff is available to work with the Lead Agency to ensure that air quality, greenhouse gas, and health risk impacts from the Proposed Project are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at [lsun@aqmd.gov](mailto:lsun@aqmd.gov).

Sincerely,

*Lijin Sun*

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

LS

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<sup>5</sup> South Coast AQMD's guidance for performing a mobile source health risk assessment can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.

<sup>6</sup> CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* can be found at: <http://www.arb.ca.gov/ch/handbook.pdf>.

<sup>7</sup> CARB's technical advisory can be found at: <https://www.arb.ca.gov/ch/landuse.htm>.

<sup>8</sup> South Coast AQMD. 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Available at: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

<sup>9</sup> South Coast AQMD's 2016 Air Quality Management Plan can be found at: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf> (starting on page 86).

<sup>10</sup> Southern California Association of Governments' 2020-2045 RTP/SCS can be found at: [https://www.connectsoocal.org/Documents/PEIR/certified/Exhibit-A\\_ConnectSoCal\\_PEIR.pdf](https://www.connectsoocal.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf).



## **Appendix B: General Plan Update Goals and Policies**

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## GOALS AND POLICIES:

Revised September 13, 2021

### LAND USE ELEMENT

#### Sustainable, Balanced, and Compatible Land Uses

##### **GOAL LU-1: A BALANCED COMMUNITY OF THRIVING BUSINESSES, HEALTHY NEIGHBORHOODS, EXCELLENT COMMUNITY FACILITIES, AND INTERESTING PLACES**

**Policy LU-1.1: Small Community Character.** Retain the City's small-town character by maintaining the scale of established residential neighborhoods and integrating new residential development into the community fabric.

**Policy LU-1.2: Economic Diversity.** Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.

**Policy LU-1.3: Downtown.** Create a thriving Downtown District that supports a complementary mix of residential and nonresidential uses and provides community gathering spaces.

**Policy LU-1.4: Transit-Oriented Development.** Develop transit-oriented districts around commuter rail stations to maximize access to transit and create vibrant new neighborhoods.

**Policy LU-1.5: Land Use Transitions.** Apply appropriate screening, buffers, transitional uses, and other controls to transition from industrial and commercial uses to any adjacent residential uses and thus reduce potential noise and air pollution impacts.

**Policy LU-1.6: Community Benefits.** Ensure that new development(s) provide a net community benefit and pays their fair share of fiscal impacts on infrastructure and services.

**Policy LU-1.7: Healthy Neighborhoods.** Improve community health by ensuring equal access to parks, affordable and good-quality fresh food and community facilities, and by reducing pollution burdens.



**Policy LU-1.8: Jurisdictional Consultation.** Consult with jurisdictions and agencies when proposed development projects and/or infrastructure improvements within the West Whittier-Los Nietos and South Whittier Sphere of Influences or along the City borders that may affect the community.

## **Industrial and Employment Districts**

### **GOAL LU-2: INDUSTRIAL BUSINESSES THAT STIMULATE ECONOMIC DEVELOPMENT AND JOB GROWTH**

**Policy LU-2.1: Diverse Industrial Activities.** Strengthen the diversity of industrial uses, that emphasizes-manufacturing, biotechnology, technology, commercial innovation, research and development, and clean industries.

**Policy LU-2.2: Expanding Industrial Base.** Apply the following criteria when encouraging new industries to locate and established businesses to remain in the City and considering proposed expansion of existing industries:

- Contribute to the local tax base
- Offer well-paying, skilled employment opportunities
- Consider the level of intensity with regards to land use. Develop a reasonably high intensity of land use - but not so high as to produce excessive traffic congestion or environmental degradation. Industries that use extensive land areas without substantial improvements or employment should be discouraged.
- Provide a favorable relationship between the costs of providing municipal services and the municipal benefits produced
- Responsibly managed or minimize environmental impacts locally and regionally

**Policy LU-2.3: Green Businesses.** Pursue businesses associated with the “green economy” and clean technology companies.

**Policy LU-2.4: Beneficial Businesses.** Discourage establishment of businesses that have limited potential to contribute to the local tax base or create high-paying jobs.

**Policy LU-2.5: Employment Districts.** Create employment districts that foster innovation in research and development.

**Policy LU-2.6: Business Park District.** Use the Business Park District to encourage development of

small campus-style districts that support a complementary mix of professional offices, research and development, supporting commercial, and light manufacturing uses.

**Policy LU-2.7: Support Services.** Encourage commercial service and dining businesses that support the employee population and serve local residents.

**Policy LU-2.8: Business Catalyst.** Catalyze business growth with services ranging from incentives to help drive private investments, and create/improve the necessary infrastructure for growth, networking, communications, and business development.

### **GOAL LU-3: CLEAN INDUSTRIAL BUSINESSES**

**Policy LU-3.1: Hazardous Uses.** Regulate and monitor uses that use, store, produce, or transport toxic substances, unhealthy air emissions, and other pollutants or hazardous materials.

**Policy LU-3.2: Appropriate Siting.** Site heavy industrial, large warehouses, and trucking and logistics in areas where the location and roadway pattern will provide minimal impacts on residential and commercial uses.

**Policy LU-3.3: Freight and Industrial Green Technology.** Encourage technological solutions to reduce pollutants and airborne emissions associated with rail and road freight transport and other industrial operations.

**Policy LU-3.4: Repurpose Petroleum Production Lands.** Encourage the remediation and development of properties transitioning from petroleum production.

**Policy LU-3.5: Oil Fields.** Encourage efficient and compatible methods for extracting the remaining petroleum resources and the removal of unused oil field equipment and storage facilities.

**Policy LU-3.6: Environmental Preservation of Oil Field Sites.** Monitor and ensure that efficient and environmentally sound techniques are used in abandoning oil field sites.

**Policy LU-3.7: Contaminated Land Remediation.** Encourage the proper cleanup and remediation of lands that are contaminated, prioritizing cleanup near and within disadvantaged communities.

**Policy LU-3.8: Green Industrial Operations.** Encourage industrial businesses to utilize green building strategies, green vehicle fleets, energy-efficient equipment, and support renewable energy systems.



## Commercial Districts

### **GOAL LU-4: VIBRANT COMMERCIAL DISTRICTS AND CORRIDORS THAT PROVIDE CONVENIENT ACCESS TO A VARIETY OF SERVICES AND GOODS**

**Policy LU-4.1: Diverse Range of Goods and Services.** Accommodate a diverse range of commercial businesses in commercial and industrial zoning districts.

**Policy LU-4.2: Shops and Services.** Encourage development of shops and services for everyday needs—including groceries, day care, cafes and restaurants, banks, and drug stores—within an easy walk from residential neighborhoods.

**Policy LU-4.3: Essential Services.** Target commercial essential services to locate to underserved areas of the City, including a grocery store in western Santa Fe Springs.

**Policy LU-4.4: Entertainment and Experiential Commercial.** Encourage a variety of local and regional entertainment and experiential destinations that respond to a range of preferences of residents and the businesses community.

**Policy LU-4.5: Hospitality.** Promote new hospitality uses within the proposed Downtown and along the I-5 Freeway Commercial Corridor and encourage supportive commercial services, including complementary restaurants and entertainment uses.

**Policy LU-4.6: Appearance of Commercial Corridors.** Enhance the appearance of all commercial corridors and districts.

**Policy LU-4.7: Adaptive Reuse and Redevelopment.** Collaborate with business owners and landowners with underinvested properties to support adaptive reuse and redevelopment.

**Policy LU-4.8: Experiential Enhancement.** Encourage and support the use of technology to enhance customer experience, including but not limited to virtual reality, location-based computing, robotics, and internet connectivity and communications.

### **GOAL LU-5: AN ATTRACTIVE AND ENHANCED I-5 FREEWAY CORRIDOR**

**Policy LU-5.1: Freeway Commercial Corridors.** Accommodate and encourage regional-serving uses along the I-5 freeway corridor focusing on regional retail trade, professional offices and businesses,

hospitality and entertainment, and compatible light industrial and manufacturing of specialty goods.

**Policy LU-5.2: Freeway Visibility and Accessibility.** Promote the design of freeway-oriented signage and property frontages that cater to vehicular visibility and accessibility, and encourage public gateway elements that identify entry into Santa Fe Springs.

**Policy LU-5.3: Freeway Design.** Enhance design standards for the I-5 corridor to create consistent and authentic design elements for site planning, architecture, landscaping, signage, and wayfinding features.

## Residential Neighborhoods

### GOAL LU-6: NEIGHBORHOODS THAT OFFER A DIVERSITY OF HOUSING TYPES AND COMMUNITY SERVICES

**Policy LU-6.1: Access to Services and Amenities.** Provide convenient multi-modal access from every neighborhood to schools, parks, religious institutions, retail and commercial services, restaurants, healthy and fresh food options, and community facilities.

**Policy LU-6.2: Neighborhood Improvements.** Continue to improve residential neighborhoods by enhancing streetscapes and crosswalks, increasing the number of trees, creating conditions that encourage walking and bicycling, integrating green infrastructure and communications technology, and allowing connectivity to activity areas and community facilities.

**Policy LU-6.3: Housing Choices.** Ensure zoning regulations accommodate a range of housing types at all price levels, both ownership and rental, for people in all stages of life.

**Policy LU-6.4: Diverse Communities.** Promote mixed-income communities with mixed housing types to create inclusive and economically diverse neighborhoods.

**Policy LU-6.5: Disadvantaged Neighborhoods.** Ensure disadvantaged neighborhoods have access to healthy foods, parks and open spaces, mobility options, community services and programming, and safe and sanitary homes.

**Policy LU-6.6: Neighborhood Parking.** Protect residential neighborhoods from parking spillover impacts from adjoining non-residential uses and facilities, as well as from .



## Re-Imagine Santa Fe Springs

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**Policy LU-6.7: Neighborhood Character.** Preserve and enhance the single-family nature of the community.

**Policy LU-6.8: Community Facility.** Locate community facilities, such as shopping areas, places of worship, clubs, and governmental offices on the periphery of residential areas so as to have both convenient vehicular access from arterial streets (without inducing traffic over local residential streets) and convenient pedestrian access from adjacent residential areas.

## MIXED USE DISTRICTS

### GOAL LU-7: A CENTRALLY LOCATED AND VIBRANT DOWNTOWN

**Policy LU-7.1: Main Street Environment.** Create a main street environment by integrating business, residential, hospitality, commercial, and public uses, and designing building(s) and the street(s) and sidewalks to create a pedestrian-friendly, walkable environment with strong social and civic connections.

**Policy LU-7.2: Employment Opportunities.** Maintain and enhance the concentration of employment opportunities, in both the public and private sectors, that establish the foundation for a sustainable downtown district.

**Policy LU-7.3: Placemaking.** Create a pleasurable, vibrant downtown environment by focusing on thematic design elements: unique streetscapes, gateways, landmarks, wayfinding systems, public art, street trees and landscaping, public spaces, enhanced street corners, and urban green spaces.

**Policy LU-7.4: Gathering Places.** Activate downtown by creating places for people to socialize in flexible public spaces for community events and activities, such as street fairs, farmers' markets, arts festivals, celebrations, concerts, and other special events.

**Policy LU-7.5: Day/Night Environment.** Make downtown a day/night place with residences, restaurants, commercial service businesses, and entertainment venues.

**Policy LU-7.6: Rich Cultural Environment.** Integrate public art that contributes to the civic and cultural life of the City, and that reflects the City's history and heritage.

**Policy LU-7.7: Telegraph Road.** Transform Telegraph Road between Orr and Day Road and Bloomfield Avenue to create a unifying mixed-use corridor with vibrant commercial services and diverse housing





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options that complement surrounding business districts, with activated street frontages, pedestrian-friendly streetscapes, attractive gateway elements, architectural design themes, public art, street trees, and landscaping features.

### **GOALS LU-8: VIBRANT MIXED-USE, PEDESTRIAN-FRIENDLY DISTRICTS AROUND TRANSIT STATIONS.**

**Policy LU-8.1: Transit-Oriented Development.** Promote development of high-density residential uses, mixed use, and commercial services within walking distance of commuter rail transit stations.

**Policy LU-8.2: Community Supporting Environment.** Integrate land uses and urban form that support community needs, including vibrant retail environment, buildings along the street, restaurants and commercial services, healthy food options, and quality public and private parks.

**Policy LU-8.3: Housing Options.** Accommodate housing options for all income levels.

**Policy LU-8.4: Improved Infrastructure.** Improve street infrastructure around transit stations to accommodate pedestrians and bicyclists.

**Policy LU-8.5: Streetscapes.** Create streetscapes that include amenities for visual interest and pedestrian accommodation, sidewalks that are offset from the curb, seating, trees for shade, and green buffers.

**Policy LU-8.6: Lively and Vibrant Pedestrian Frontages.** Design mixed-use and commercial corridor buildings to activate street frontages and promote social interaction through creative and innovative design strategies.

## Open Spaces

### **GOAL LU-9: QUALITY OPEN SPACES AND URBAN GREENERY CITYWIDE**

**Policy LU-9.1: Parks and Open Space.** Preserve, protect, and maintain parks and recreation facilities as critical spaces in Santa Fe Springs, recognizing that such uses contribute to a local high quality of life.

**Policy LU-9.2: Private and Common Open Space.** Require the provision of adequate on-site open space and communal areas for industrial, and all residential types and densities.



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**Policy LU-9.3: Setbacks.** Promote greenery and active street frontages throughout the City by requiring well-landscaped and well-maintained setbacks, including sidewalks that meander and/or otherwise setback from the curb face.

**Policy LU-9.4: Small Parks and Plazas.** Establish a network of small parks and plazas with amenities such as seating, lighting, and public art. Explore innovative methods and private partnerships for funding and constructing these new public spaces.

**Policy LU-9.5: Leverage Underutilized Space.** Leverage underutilized sidewalks, medians, parking spaces and vacant land to incorporate temporary and permanent public spaces and green infrastructure.

### Public Facilities

#### GOAL LU-10: EQUITABLE ACCESS TO AND DISTRIBUTION OF PUBLIC FACILITIES

**Policy LU-10.1: Joint Use of Land.** Pursue opportunities for the joint use of land devoted to community facilities and services. Such joint use may include combined school and recreation sites, and passive open space uses beneath power transmission rights-of-way and within channels or river floodways.

**Policy LU-10.2: Locations.** Develop public facilities at locations where they most efficiently serve the community and are compatible with current and future land uses.

**Policy LU-10.3: Community Involvement.** Encourage community involvement to assess the needs of City residents to determine priorities for the rehabilitation or new construction of public facilities.

**Policy LU-10.4: Available Land for Public Uses.** Protect those lands needed for public and quasi-public services which benefit the City as a whole.

**Policy LU-10.5: Town Center Plaza.** Assess the Town Center Plaza facilities and structures to consider modernization projects to improve sustainability, efficiency, and technology to improve services to the public, as feasible.

**Policy LU-10.6: Public Facilities Modernization.** Review and evaluate all public facilities to ensure structures are improved to be more sustainable, utilizes digital tools, improve user centric design, and

favor technological solutions and platforms, as feasible.

**Policy LU-10.7: Smart City and Technology.** Modernize antiquated City technology systems to reduce costs, improve efficiency, and empower employees to improve service, including digitize, automate, and integrate City services to be “user-friendly.”

**Policy LU-10.8: Sustainability Improvements.** Improve energy and water efficiency at all public facilities, structures, and parks, using data to benchmark progress, and utilize analytics to identify best practices.

## COMMUNITY DESIGN

### GOAL LU-11: WELL-DESIGNED, ATTRACTIVE BUSINESS DISTRICTS AND NEIGHBORHOODS

**Policy LU-11.1: Signature Design.** Require developments along major corridors and at City entries to use distinctive architectural, landscaping, and site design treatments.

**Policy LU-11.2: Public Art.** Encourage public artwork within public rights-of-way, along streetscapes, at gateways, and integrated into private projects in a manner visible to the public and encourages the City’s cultural and historical elements.

**Policy LU-11.3: Community Image.** Encourage a unique and consistent community image that celebrates Santa Fe Springs’ cultural and historic heritage and incorporates sustainable development approaches.

**Policy LU-11.4: Visual Character.** Encourage development that enhances the visual character, quality, and uniqueness of residential neighborhoods and commercial and industrial districts.

**Policy LU-11.5: Trees and Landscaping.** Encourage visually attractive residential neighborhoods by expanding climate-appropriate street trees and other types of streetscape and hardscape, and by using attractive drought-tolerant landscaping.

**Policy LU-11.6: Industrial Design.** Insist upon distinctive architecture, landscaping, and shade trees along street frontages and on private property that defines the character of industrial and commercial districts.

**Policy LU-11.7: Vibrant Streetscapes.** Design streetscapes to provide an opportunity to blend



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business, transportation, and users into a vibrant, unified space through placemaking, public art, lighting, landscaping, and gateway entry elements, and to reduce visual clutter.

**Policy LU-11.8: Neighborhood Context.** Consider adjoining neighborhood context when planning new residential uses.

**Policy LU-11.9: Underground Utility Poles.** Establish strategies and programs to gradually place overhead utility wires underground throughout the City, with special emphasis on corridors.

**Policy LU-11.10: Community Safety.** Encourage development design that enhances community safety via crime prevention through environmental design (CPTED) approaches.

**Policy LU-11.11: Code Enforcement.** Foster and maintain a proactive code enforcement program that involves collaboration with stakeholders, responds to community needs, and maintains and improves the quality of properties and buildings.

**Policy LU-11.12: Light Pollution.** Minimize light pollution by limiting the amount and type of lighting within new developments.

## Historical and Cultural Resources

**GOAL LU-12: CITY'S HISTORICAL AND CULTURAL ASSETS ARE PROTECTED, PRESERVED, AND CELEBRATED.**

**Policy LU-12.1: Historical.** Sites of historical or cultural interest should be preserved and where applicable, enhanced.

**Policy LU-12.2: Historic Preservation.** Assess the historical significance of additional properties and encourage the preservation of public and private buildings which are of local, historical, or cultural importance.

**Policy LU-12.3: Archaeological Resources.** Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.

**Policy LU-12.4: Cultural Resources.** Review all development and redevelopment proposals for the possibility of cultural resources, including the need for individual cultural resource studies, including subsurface investigations.

**Policy LU-12.5: Railroad History.** Expand historic preservation and education that focuses on the City railroad historic resource and remaining historical articles and facilities.

**Policy LU-12.6: Historic District.** Consider evaluating and designating Civic Center and Heritage Park properties into a Historic District that reflecting multiple periods of significance.

**Policy LU-12.7: Promoting Historic Resources.** Promote and utilize historic and cultural resources in the community, including the Clarke Estate and Heritage Park, as a means of bolstering economic development.



## Environmental Justice

### Reducing Pollution Exposure

#### **GOAL EJ-1: REDUCED EXPOSURE TO AIR POLLUTION AND HAZARDOUS MATERIALS**

**Policy EJ-1.1: Roadway Pollution Burdens.** Mitigate impacts on residential neighborhoods immediately adjacent to I-605 from noise and air pollutant emissions.

**Policy EJ-1.2: Truck Idling Restrictions.** Designate acceptable and unacceptable areas for freight trucking and diesel truck idling to limit impacts on disadvantaged communities already overburdened by air pollution.

**Policy EJ-1.3: Cleanup Sites.** Prioritize the cleanup of former landfill and contaminated lands within disadvantaged communities.

**Policy EJ-1.4: Industrial Pollution.** Reduce pollution exposure in residential neighborhoods by limiting industrial operations that generate potentially hazardous air pollutants.

**Policy EJ-1.5: Stationary Source Emissions.** Consult with California Air Resources Board and the South Coast Air Quality Management District to ensure the appropriate monitoring of stationary source emissions and to receive aid and assistance to reduce exposures to harmful air pollutants, especially in disadvantaged communities.

**Policy EJ-1.6: Public Education.** Develop community programs to improve public awareness of State, County, regional, and local agencies, and resources to assist with air quality and other environmental quality concerns. Provide materials in multiple languages, especially in Spanish and consider Korean.

**Policy EJ-1.7: Emission Data Collection.** Coordinate with the South Coast Air Quality Management District to explore ways to initiate data collection efforts for a community emissions reduction and/or community air monitoring plan, including the identification of: information needed (new or updated), potential data sources and the resources needed, and strategies to engage residents and collect information.

*Refer also to the Safety Element for policies related reducing pollution in residential neighborhoods.*

### Open Space and Physical Activity

#### **GOAL EJ-2: ACCESSIBLE OPEN SPACES AND INCREASED LEVELS OF PHYSICAL ACTIVITIES**



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**Policy EJ-2.1: Physical Activity.** Promote physical activity programs and bilingual education for residents and encourage them to participate regularly in physical activity and active lifestyles.

**Policy EJ-2.2: Walking and Biking.** Promote walking, biking, and other modes of active transportation as easy, healthy, and fun ways to complete local errands and short trips.

**Policy EJ-2.3: School Programming.** Support school district activities, programs, and planning efforts that encourage physical activity and wellness.

*Refer also to the Parks and Open Space Element for policies related to enhancing parks and open spaces.*

## Prioritizing Community Needs

### GOAL EJ-3: MEETING DISADVANTAGED COMMUNITIES' NEEDS

**Policy EJ-3.1: Grocery Stores.** Prioritize the siting of a new grocery store west of Norwalk Boulevard and within walking distance to all residential neighborhoods and senior housing.

**Policy EJ-3.2: Park Facility.** Identify opportunities to development small urban park or similar within the Potential Future Park Target Areas identified in Figure EJ-9.

**Policy EJ-3.3: Bicycle and Pedestrian Safety.** Prioritize pedestrian and bicycle safety improvements in disadvantaged communities.

**Policy EJ-3.4: Community Services.** Maintain and improve community programming and services provided at the Gus Velasco Neighborhood Center, Activity Center, and the Lake Center Athletic Park/Betty Wilson Center aimed at seniors and older adults, family services, and case management programming and services.

**Policy EJ-3.5: Weatherization Programs.** Assist residents in disadvantaged communities to retrofit their homes to be more energy efficient, weatherproof, and better protected from air and noise pollution.

**Policy EJ-3.6: Supporting Health Services.** Collaborate with community-based organizations and local health providers engaged in improving public health and wellness, expanding access to affordable quality health care, and providing medical services for all segments of the community, as well as assigning priority to expand or improve health services to underserved areas.

**Policy EJ-3.7: Equitable Programming and Services.** Ensure educational, recreational, and cultural programs and activities of local interest that are inclusive and affordable to all.



## Civic Engagement

### GOAL EJ-4: INCREASED CIVIC ENGAGEMENT FROM DISADVANTAGED COMMUNITIES

**Policy EJ-4.1: Civic Engagement.** Support an equitable and comprehensive approach to civic engagement and public outreach on all aspects of City governance and delivery of services.

**Policy EJ-4.2: Outreach Strategy Plan.** Create a comprehensive Community Outreach Strategy that serves as a framework for all departments to participate in meaningful two-way communication with the public, prioritizing residents in disadvantaged communities and those with language barriers.

**Policy EJ-4.3: Standard Meeting Conduct.** Conduct all public meetings in a fair, transparent, and publicly accessible information. Consider providing translation and interpretation services at public meetings, when necessary.

**Policy EJ-4.4: Special Meetings.** Consider conducting special informational meetings for projects that could pose impact on disadvantaged communities, including projects that may handle hazardous materials, emit air pollution, and/or create truck or rail traffic.

## Healthy Foods Access

### GOAL EJ-5: IMPROVED COMMUNITY HEALTH AND WELLNESS THROUGH HEALTHIER FOOD OPTIONS

**Policy EJ-5.1: Access Healthy Foods.** Encourage the provision of safe, convenient opportunities to access healthy food products by ensuring that sources of healthy foods are easily accessible from all neighborhoods.

**Policy EJ-5.2: Food Education.** Support food education programs and public service programming and messaging in different languages about healthy eating habits, food choices, culinary classes, nutrition, and related City programs.

**Policy EJ-5.3: Urban Agriculture.** Promote and expand urban agricultural opportunities within disadvantaged communities, including home gardens, community gardens, urban orchards, farmers' markets, and small-lot urban agricultural projects on underutilized sites, park or community facilities, schools, and remnant vacant properties.





## Noise

### Transportation Noise

#### GOAL N-1: REDUCED TRAFFIC AND TRAIN NOISE

**Policy N-1.1: Freeway and Roadway Noise.** Incorporate into transportation planning programs noise reduction measures that can reduce noise impacts on residential neighborhoods from surface transportation sources, including such features as noise barriers and walls, insulation, green buffers and berms, and paving technologies that reduce vehicle noise.

**Policy N-1.2: Residential Noise Impacts.** Update truck routes and redesignate routes to reduce noise exposure in residential neighborhoods and on sensitive community noise receptors that are within noise zones of 70 CNEL or higher.

**Policy N-1.3: Electric Vehicles.** Support efforts that will reduce vehicular noise through programs that increase the percentage share of electric vehicles on roadways.

**Policy N-1.4: Quiet Road Surfaces.** Incorporate into surface roadway design materials that absorb tire noise.

**Policy N-1.5: Building Sound Insulation:** Encourage sound insulation in new and established residential buildings adjacent to the freeways, railroads, and arterials to improve the outdoor-to-indoor noise environment. Prioritize mitigation in disadvantaged communities.

**Policy N-1.6: Bus Noise.** Support the efforts of Metro to use quiet bus technologies and to route bus lines in a manner that avoids noise impacts on residential neighborhoods.

**Policy N-1.7: Garbage Trucks and Services.** Award garbage collection franchise contracts in part on the ability of service providers to minimize noise by using quiet and non-polluting collection vehicles and other noise-reducing strategies.

**Policy N-1.8: Railway Noise and Vibration Impacts.** Support the soundproofing and retrofitting of homes adjacent to railways and rail yards by incorporating wall insulation, installing sound-blocking windows and doors, adding indoor and/or outdoor soundproof curtains or panels, and other similar technologies and sound controls.

**Policy N-1.9: Railway Barriers.** Incorporate physical barriers between residential uses and railways and rail yards, including planting extensive vegetation barriers, adding earth berms, installing sound walls, and other mitigation strategies to minimize air pollution and noise and vibration impacts.



## Noise and Land Use Planning Integration

### GOAL 2: LAND USE DECISIONS THAT MINIMIZE NOISE EXPOSURE

**Policy N-2.1: Noise Standards:** Revisit noise standards in the Municipal Code to ensure they sufficiently address community noise conditions, issues, and concerns for various land uses.

**Policy N-2.2: Land Use Compatibility:** Utilize the noise/land use compatibility standards (Table N-1) as a guide in land use planning for the review of development applications.

**Policy N-2.3: Noise Studies:** Require developers of projects that are considered potential sources of noise, or when the projects are proposed next to existing or planned noise-sensitive land uses to prepare an acoustical study that describes the existing and future noise environments and defines noise-reducing design incorporated into the project that will achieve a noise environment consistent with City standards and guidelines.

**Policy N-2.4: Truck Access.** Require new industrial and commercial developments and/or remodels to address proximity to residential uses, through the site design, by locating truck access at the maximum practical distance away from residential uses and with adequate noise shielding provided to achieve noise standards.

**Policy N-2.5: Noise-Generating Industrial Facilities:** Locate noise-generating industrial facilities at the maximum practical distance from residential neighborhoods. Use setbacks between noise-generating equipment and noise-sensitive uses and limit the operation of noise-generating activities to daytime hours where such activities may affect residential uses.

## Non-Transportation Noise Control

### GOAL N-3: QUIETER NEIGHBORHOODS

**Policy N-3.1: Noise Enforcement:** Enforce City regulations intended to mitigate noise-producing activities, reduce intrusive noise, and alleviate noise deemed a public nuisance.

**Policy N-3.2: Noise Reduction Technology:** Require new City equipment purchases or facilities operations that utilizes noise reduction technology to comply with noise performance standards.

**Policy N-3.3: Construction Noise:** Require construction management plans that, in addition to enforcing City regulations, provide for construction noise mitigation to avoid adverse impacts associated with all construction-related activities and limit the permitted hours of construction activity.

**Policy N-3.4: Home Retrofits.** Develop a program to assist with the retrofit of residences adjacent to freeways to achieve suitable interior noise conditions.



## CIRCULATION ELEMENT

### Transportation

#### *Complete Streets*

#### **GOAL C-1: A MULTIMODAL MOBILITY NETWORK THAT EFFICIENTLY MOVES AND CONNECTS PEOPLE, DESTINATION, VEHICLES, AND GOODS**

**Policy C-1.1: Multimodal.** Use a multimodal approach when pursuing street and other transportation network improvements, including accommodating pedestrians, cyclists, transit riders, and motor vehicles, and that accounts for land use and urban form factors that affect accessibility.

**Policy C-1.2: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.

**Policy C-1.3: Street Classification.** Designate a street's functional classification based upon its current dimensions, land use and urban form context, and priority for various users and transportation options.

**Policy C-1.4: Context-Sensitive Improvements.** Pursue context-sensitive Complete Streets strategies that recognize the City's various neighborhoods and community character and geographic complexity.

**Policy C-1.5: Transportation Priority.** Prioritize transportation improvements that enhance safety, access, convenience, and affordability to the established street and transportation system within disadvantaged communities.

#### **GOAL C-2: STREETS DESIGNED AND MANAGED TO EASE ACCESS FOR ALL USERS**

**Policy C-2.1: Accessibility.** Identify and evaluate the transportation system for potential improvements to accommodate seniors and disabled persons and to comply with ADA requirements.

**Policy C-2.2: Senior Transportation.** Identify multiple mobility options, including paratransit, to help improve access and connectivity for senior and/or disabled persons.

**Policy C-2.3: Rights-of-Ways.** Use available public rights-of-ways to provide wider sidewalks, bicycle



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lanes, trail facilities, and transit amenities.

**Policy C-2.4: Equity.** Plan for the equitable treatment of all transportation users when planning and constructing transportation projects through a transparent and fair process.

**Policy C-2.5: Universal Access:** Ensure accessibility of pedestrian facilities to the elderly and mobility impaired.

**Policy C-2.6: Increasing Access of Vulnerable Populations.** Identify strategies and physical improvements to remove mobility barriers and to reduce travel time for vulnerable populations, including low-income households, seniors, and children within all areas of the communities, but also prioritize Disadvantaged Communities areas.

**Policy C-2.7: Micromobility.** Plan for future micromobility within the City by considering use within public right-of-way and parking facilities, address public safety, and utilize pilot programs and demonstrations to evaluate potential systems in the City.

**Policy C-2.8: Community Engagement.** Involve the community and expand education in transportation planning and project design decisions for improving the transportation infrastructure and mobility network.

**Policy C-2.8: Sidewalk Maintenance and Upkeep.** Ensure established sidewalks and related physical improvements are preserved and maintained to provide a comfortable, safe, and desirable experience.

### *Active Transportation*

#### **GOAL C-3: ACTIVE TRANSPORTATION NETWORK: CONNECTED STREET NETWORK FOR PEDESTRIANS AND CYCLISTS**

**Policy C-3.1: Promote Walking.** Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

**Policy C-3.2: Pedestrian Facilities.** Improve established pedestrian facilities and sidewalk areas and require the inclusion of pedestrian facilities in new development.

**Policy C-3.3: Pedestrian Priority Zones.** Create pedestrian priority zones around transit stations and

along heavy traveled corridors to connect community facilities, commercial centers, and activity areas.

**Policy C-3.4: Connectivity.** Require that new developments increase connectivity through convenient pedestrian and bicycling connections to the established and planned network.

**Policy C-3.5: Innovative Bicycle and Pedestrian Connections.** Investigate the use of easements and/or rights-of-way along flood control channels, public utilities, railroads, and streets by cyclists and pedestrians.

**Policy C-3.6: Active Transportation Facilities.** Promote and encourage active transportation improvements to improve connectivity and increase physical activity and healthier lifestyles.

**Policy C-3.7 Bicycle Facilities.** Plan for new shared-use paths, bicycle lanes, buffered bicycle lanes, bicycle routes, and bicycle boulevards that establish a comprehensive bicycle network citywide.

**Policy C-3.8: Bicycle Parking.** Establish standards for bicycling parking that include racks and locks and integrate bike parking facilities within all community facilities and activity areas, and consider parking reductions for commercial developments that provide bicycling parking.

**Policy C-3.9: San Gabriel River.** Improve connectivity to the San Gabriel River Trail, including access to parks and open spaces along the river.

**Policy C-3.10: Wayfinding.** Develop a comprehensive bicycle and pedestrian wayfinding signage and pavement marking system program to guide visual connectivity to destinations such as parks, schools, landmarks, transit stations, community facilities, and activity centers.

**Policy C-3.11: Sidewalks Gaps.** Prioritize adding new sidewalks to streets either lacking sidewalks on both sides of the streets or on one side of the street, with added priority in disadvantaged communities.

**Policy C-3.12: Sidewalks Widening.** Evaluate widening sidewalks to accommodate pedestrians along major transit routes and around planned and established transit stations.

**Policy C-3.13: Pedestrian and Bicycle Safety.** Prioritize street and sidewalk improvements along streets and intersections with high activity of vehicle collisions involving pedestrians and bicyclists, including those identified in Figure C-2.



## *Transit*

### **GOAL C-4: A COMPREHENSIVE TRANSIT SYSTEM THAT PROVIDES CONVENIENT AND RELIABLE TRANSIT ACCESS TO RESIDENTIAL NEIGHBORHOODS AND ACTIVITY DESTINATIONS**

**Policy C-4.1: Transit Stops and Station.** Develop approaches and coordinate with other agencies to create comfortable, functional, informational, and safe transit shelters for bus stops and rail stations.

**Policy C-4.2: Transit Rider Needs.** Consult with all transit agencies operating in the City to ensure bus services and facilities meet the needs of residents and the business community, specifically targeting specific populations such as residents in high transit ridership areas, senior populations, school-age children, and residents living in disadvantaged communities.

**Policy C-4.3: First/Last Mile.** Encourage first/last mile infrastructure improvements, mobility services, transit facilities and amenities, and signage/wayfinding solutions to all bus stops and transit stations.

**Policy C-4.4: Transit Improvement Priority.** Prioritize transit and bus connectivity and access improvements within disadvantaged communities.

**Policy C-4.5: Improve Transit Access.** Improve multi-modal access to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station, including bicycle, micromobility, and pedestrian connections and improvements.

**Policy C-4.6: Metro L Line Expansion.** Consult with Metro during the planning and construction phases of Metro L line and station along Washington Boulevard to ensure improvements achieve the City's connectivity and land use objectives.

**Policy C-4.7: Metro C Line Expansion:** Consult with regional partners and Metro to encourage expansion of the Metro C Line from its terminus in Norwalk to the Norwalk/Santa Fe Springs Transportation Center and Metrolink Station.

**Policy C-4.8: Light Rail Stations:** Consult with Metro to establish appropriate light rail stations that consider local context and provide opportunities for attractive design, placemaking, and integrating public art and amenities that reflect the City of Santa Fe Springs' community and culture.

**Policy C-4.8: Transit :** Require new development to post current transit and bus schedules and operating system information within communal gathering areas to encourage greater participation in public transportation.



## ***Goods Movements***

### **GOAL C-5: A MULTIMODAL FREIGHT TRANSPORTATION SYSTEM THAT FACILITATES THE EFFECTIVE TRANSPORT OF GOODS WHILE MINIMIZING NEGATIVE IMPACTS ON THE COMMUNITY.**

**Policy C-5.1: Truck Routes:** Provide primary truck routes on selected arterial streets identified in Figure C-8 with direct connections to the freeway system, and where necessary, place restrictions on other streets to minimize the impacts of truck traffic on residential and commercial/retail areas.

**Policy C-5.2: Minimize Community Impacts.** Investigate means to establish buffers such as walls, landscape screening, and/or barriers along truck, rail, and freeway routes and adjacent to rail yards to minimize noise, vibration, and aesthetics impacts.

**Policy C-5.3: Street Design to Accommodate Trucks.** Require that all new construction or reconstruction of streets or corridors that are designated as truck routes be designed, constructed, and maintained to accommodate projected truck volumes and weights.

**Policy C-5.4: Minimize Truck Maneuvering on Streets.** Implement site design solutions or restrictions on new uses and development to minimize truck maneuvering on streets with substantial traffic during periods of high traffic volumes.

**Policy C-5.5: Minimize Roadway Damage:** Ensure that warehousing, logistic facilities, truck and container yards, and similar truck-heavy uses pay a fair share of the cost of repairing extensive damage and/or the cost of reconstructing established roads to City roads caused by truck trips and excessive container weight.

**Policy C-5.6: Railroad Crossing Improvements** Pursue funding and innovative solutions to improve at-grade crossing safety improvements at all railroad and street/sidewalk crossings, with the goals of minimizing congestion and collisions and enhancing pedestrian and vehicle safety.

**Policy C-5.7: Hazardous Materials Transport:** Provide for the safe and expeditious transport of hazardous and flammable materials.

**Policy C-5.8: Parcel Delivery:** Develop a comprehensive curb management strategy to manage loading/unloading areas for local parcel and package deliveries within areas requiring high delivery demands and to minimize local congestion and illegal parking.

**Policy C-5.9: Residential Parcel Delivery:** Monitor parcel delivery activities within residential neighborhoods to minimize impacts.

### *Street Design and Standards*

#### **GOAL C-6: STREET DESIGNS THAT ACCOMMODATE TRANSPORTATION MODES AND USERS OF ALL ABILITIES**

**Policy C-6.1: Pedestrian Projects.** Incorporate new crossing treatments, curb treatments, signals and beacons, traffic-calming measures, and transit stop amenities identified in the Active Transportation Plan.

**Policy C-6.2: Street Rehabilitation:** Pursue a street rehabilitation plan that prioritizes street paving and resurfacing based on street condition, type of repair, cost effectiveness, and amount of vehicle and truck traffic that is implemented in an equitable manner.

**Policy C-6.3: Crosswalks:** Consider improvements at intersections or mid-blocks to improve crosswalk conditions, including more visible street markings and accommodating universal design standards.

**Policy C-6.4: Context Sensitive Street Design:** Maintain and implement street system standards for roadway and intersection classifications, right-of-way width, pavement width, design speed, capacity, and associated features such as landscaping buffers and building setback requirements.

**Policy C-6.5: Driveway Access:** Require the driveway access points onto arterial roadways be limited in number and location to ensure the smooth and safe flow of vehicles and bicycles.

**Policy C-6.6: Safe Routes to School:** Prioritize safety improvements to intersections, sidewalks, and crosswalks around schools and consult with schools to identify safe and efficient drop off and pick up routes around school sites.

**Policy C-6.7: Green Streets:** Integrate a green street approach into street improvements to address/include stormwater management, urban greenery, and sustainable landscaping improvements.

**Policy C-6.8: Streetscape Aesthetics.** Promote an enhanced aesthetic image through streetscaping, median improvements, and careful implementation of non-essential signage.

**Policy C-6.9: Interim Design Strategies.** Consider interim or temporary pilot strategies to integrate a



parklet along a curb, transition a narrow corridor to a pedestrian route, or redesign a complex intersection before considering permanent and long-term solutions.

**Policy C-6.10: Improvement Consultation:** Consult with applicable regional, State, and federal agencies on freeway and roadway improvements and transportation plans and proposals.

### *Transportation Management*

#### **GOAL C-8: A TRANSPORTATION SYSTEM DESIGNED TO REDUCE VEHICLE MILES TRAVELED**

**Policy C-8.1: Reducing Vehicle Miles Travel:** Integrate transportation and land use decisions to reduce vehicle miles traveled and greenhouse gas emissions.

**Policy C-8.2: Transportation Management Strategies:** Evaluate the potential of transportation demand management strategies and intelligent transportation system applications to reduce vehicle miles traveled.

**Policy C-8.3: Employee Incentives:** Encourage businesses to provide employee incentives to utilize alternatives to conventional automobile travel (i.e., carpools, vanpools, buses, cycling, and walking).

**Policy C-8.4: Air Quality:** Encourage the implementation of employer transportation demand management requirements included in the South Coast Air Quality Management District's Regulations.

**Policy C-8.5: Employee Work Hours Variability:** Encourage businesses to use flextime, staggered working hours, telecommuting, and other means to lessen peak commuter traffic.

**Policy C-8.6: Ridesharing:** Promote ridesharing through publicity and provision of information to the public through web-based apps and other approaches through collaboration with other agencies and jurisdictions.

**Policy C-8.7: Caltrans Consultation:** Consult with Caltrans regarding freeway improvements that can affect City roadways and businesses.

#### **GOAL C-9: A STREET NETWORK MANAGED TO MINIMIZE CONGESTION AND TRAFFIC IMPACTS**

**Policy C-9.1: Traffic Impacts Mitigation:** Require new development projects to mitigate off-site traffic

impacts consistent with City policy and regulations.

**Policy C-9.2: Traffic Impact Analysis:** Require new developments to include a traffic impact analysis.

**Policy C-9.3: Cut-Through Traffic:** Design local and collector streets and apply appropriate enforcement and education program to discourage cut-through traffic through residential neighborhoods.

**Policy C-9.4: Traffic Signals:** Require new development to install traffic signals at intersections or arterials which, based on individual study, are shown to satisfy traffic signal warrants.

**Policy C-9.5: Jurisdiction Consultation:** Consult with neighboring jurisdictions to ensure that the cumulative traffic impacts of development projects do not adversely impact the City of Santa Fe Springs.

## *Parking*

### **GOAL C-10. SUFFICIENT, WELL-DESIGNED, AND CONVENIENT OFF-STREET PARKING FACILITIES**

**Policy C-10.1: Parking Programs:** Establish parking management plans, preferential permit parking districts, and/or parking programs that address parking problems and minimize neighborhood parking overflow, where needed.

**Policy C-10.2: Parking Enforcement:** Ensure equitable and fair parking enforcement practices.

**Policy C-10.3: Parking Consolidation:** Consolidate parking, where appropriate, to eliminate the number of ingress and egress points onto arterials.

**Policy C-10.4: Sufficient Parking:** Periodically review City parking requirements to make certain that all development provides sufficient on-site parking and that parking standards reflect industry best practices.

**Policy C-10.5: Parking:** Require parking areas to be well landscaped and maintained and well lighted.

## *Transportation Technology*

**GOAL C-11: IMPLEMENTING PROMISING TECHNOLOGICAL ADVANCES AND CHANGES IN USE OF MOBILITY SERVICES**

**Policy C-11.1: Traffic Signal Coordination:** Implement traffic signal coordination on arterial streets to the maximum extent practical and integrate signal coordination efforts with those of adjacent jurisdictions.

**Policy C-11.2: Mobile Technology.** Encourage the use of mobile or other electronic devices with similar on-demand hailing functions, particularly for seniors, the disabled, and other mobility challenged persons.

**Policy C-11.3: Intelligent transportation Systems.** Implement intelligent transportation systems strategies—such as adaptive signal controls, fiber optic communication equipment, closed circuit television cameras, real-time transit information, and real-time parking availability information—to reduce traffic delays, lower greenhouse gas emissions, improve travel times, and enhance safety for drivers, pedestrians, and cyclists.

**Policy C-11.4: Autonomous Vehicles.** Update, when warranted, existing transportation systems and policies as autonomous and automated vehicles and their attendant facilities are developed locally and regionally.

**Policy C-11.5: Performance Analysis Measures.** Utilize technology to create performance measures to interpret data metrics of vehicles, bicycling, walking, and transit usage within streets, sidewalks, and public facilities.



## INFRASTRUCTURE

### *Water*

#### **GOAL C-12: A SUSTAINABLE AND RELIABLE WATER SUPPLY**

**Policy C-12.1: Adequate Water Supply:** Ensure adequate sources of water supply sufficient to serve existing and future development, and consider long-term climate change impacts to water demand and supply.

**Policy C-12.2: Water Conservation.** Enforce conservation measures that eliminate or penalize wasteful uses of water as a response to drought, climate change, and other threats to adequate water supply.

**Policy C-12.3: Reclaimed Water:** Continue the development of the reclaimed water system to serve landscaped areas and industrial uses when financially feasible.

**Policy C-12.4: Water Rates:** Derive water rates that fair and equitable to make certain financial sufficiency to fully fund operating and capital costs and meet water reserve requirements.

**Policy C-12.5: Water Quality.** Comply with all applicable water quality standards.

**Policy C-12.6: Water Mains Repair:** Maintain a program to replace leaking water mains and test and replace old water meters as needed.

**Policy C-12.7: Urban Water Management Plan:** Update the Urban Water Management Plan in accordance with the California Urban Water Management Planning Act.

**Policy C-12.8: Water Infrastructure:** Identify and prioritize capital improvements to construct new and replace wells, pumping plants, and reservoirs consistent with applicable master plans.

**Policy C-12.9: Water Conservation:** Promote cost-effective conservation strategies and programs that increase water use efficiency.

**Policy C-12.10: Emergency Water Connections:** Maintain emergency connections with local and regional water suppliers in the event of delivery disruption or natural disaster.

*See Open Space and Conservation Element for goals and policies related to clean water.*



## *Wastewater System*

### **GOAL C-13: A SANITARY SEWER SYSTEM WITH CAPACITY TO ACCOMMODATE FUTURE GROWTH**

**Policy C-13.1: Wastewater Capacity:** Monitor and analyze wastewater systems capacity and determine costs to construct relief wastewater systems as needed.

**Policy C-13.2: Sanitation District Consultation:** Consult with Los Angeles County Sanitation Districts to ensure all trunk sewers are maintained.

**Policy C-13.3: Industrial Waste Inspection:** Maintain an Industrial Waste Inspection and Regulation Program with all costs paid by industrial waste dischargers.

**Policy C-13.4: Unacceptable Waste Discharge.** Prevent unacceptable wastes from being discharged into the wastewater system.

**Policy C-13.5: Wastewater Technology.** Explore new technologies that treat and process wastewater onsite to reduce overall capacity needs of the centralized wastewater system.

## *Stormwater Infrastructure*

### **GOAL C-14: A SUSTAINABLE AND RESILIENT STORMWATER SYSTEM**

**Policy C-14.1: Green Infrastructure.** Promote green infrastructure projects that capture stormwater for reuse, improved water quality, and reduced flooding risk, including but not limited to permeable pavements, rain gardens, bioswales, vegetative swales, infiltration trenches, green roofs, planter boxes, and rainwater harvesting/rain barrels or cisterns for public and private projects.

**Policy C-14.2: Storm Drain.** Expand and maintain local storm drain facilities to accommodate the needs of existing and planned development and with capacity to withstand more frequent and intense storms and extreme flooding events; prioritize areas that have known drainage capacity issues.

**Policy C-14.3: Storm Drain Pollution.** Implement all appropriate programs and requirements to reduce the amount of pollution entering the storm drain system and waterways.

**Policy C-14.4: Surface Water Infiltration.** Encourage site drainage features that reduce impermeable

surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

**Policy C-14.5: Permeable Surfaces.** Encourage the reduction of impervious surfaces by discouraging excess parking areas, enforcing low-impact development and best management practices treatment methods, and increasing greenery, as well as increasing the City's inventory of green spaces.

### ***Communications***

#### **GOAL C-15: MODERNIZED COMMUNICATION SYSTEMS THAT MEET THE COMMUNITY NEEDS**

**Policy C-15.1: Wi-Fi at Public Spaces.** Encourage wi-fi connectivity at community facilities, public spaces, and parks to promote and encourage and expand internet access.

**Policy C-15.2: Telecommunications Partnerships.** Partner with service providers to ensure access to a wide range of state-of-the-art telecommunication systems and services for households, businesses, institutions, and public agencies.

**Policy C-15.3: Modernization.** Pursue technological modernization of City operations, equipment, and facilities to improve efficiencies and services, as feasible.

**Policy C-15.4: Broad.** Expand and modernize broadband and related infrastructure for all areas in the City.



## SAFETY ELEMENT

### Natural Hazards

#### GOAL S-1: A COMMUNITY WELL PREPARED TO RESPOND EARTHQUAKES

**Policy S-1.1: Earthquake Preparation.** Educate the community on actions to take before, during, and after a major earthquake, including establishing family emergency disaster plans to prepare for and after an earthquake event.

**Policy S-1.2: Training.** Provide ongoing training to encourage preparedness and reduce the potential risk loss of life, property damage, and social and housing disruption resulting from an earthquake.

**Policy S-1.3: Agency Consultation.** Consult emergency Preparedness with Federal, State, County, School Districts, and other local agencies to prepare for response and recovery efforts in the event of an earthquake.

**Policy S-1.4: Minimize Property Damage.** Encourage property owners to undertake seismic retrofit of structures vulnerable to moderate to severe ground shaking caused by earthquakes.

**Policy S-1.5: Seismic Standards.** Ensure that all new development adheres to City and State seismic and geotechnical standards.

**Policy S-1.6: Earthquake Recovery Resiliency.** Identify a plan of action and consult with different responsible agencies to respond to and recover from a major earthquake.

**Policy S-1.7: Infrastructure Resiliency.** Establish City plans and work with utility providers to ensure programs and systems are in place for continued functionality of water, sewer, electric power, natural gas, and communications infrastructure during and after a major earthquake.

**Policy S-1.8: Geotechnical Hazard Mitigation.** Require that projects in areas susceptible to liquefaction and other geologic hazards demonstrate that all appropriate engineering and planning mitigations are implemented.

#### GOAL S-2. PROTECTION FROM FLOOD AND DAM INUNDATION HAZARDS

**Policy S-2.1: Storm Drainage System.** Consult with Los Angeles County Public Works to ensure that existing and future regional storm drain facilities within and adjacent to Santa Fe Springs are designed,



operated, and maintained to accommodate projected drainage needs associated with major storm events and climate change effects.

**Policy S-2.2: Localized Ponding Mitigation.** Require developers to address localized ponding, where it may exist, as part of site improvements.

**Policy S-2.3: Dam Inundation.** Consult with appropriate agencies and monitor the upgrade/retrofit of the Whittier Narrow Dam to protect the community against catastrophic damage that could result from a combination of an extreme weather, seismic, and/or climate change event.

**Policy S-2.4: Shelters.** Seek ways to enhance the City's sheltering facilities outside of the potential dam inundation area, including places of worship, schools, and public buildings.

## **Hazardous Materials**

### **GOAL S-3: MINIMIZED EXPOSURE OF RESIDENTS, BUSINESSES, AND HABITATS TO HAZARDOUS MATERIALS AND THEIR DELETERIOUS EFFECTS**

**Policy S-3.1: Hazardous Waste Siting.** Discourage the siting of facilities that utilize hazardous materials or generate hazardous wastes within one-quarter mile of any private or public school, park, or similar place where people congregate in numbers.

**Policy S-3.2: Hazardous Materials Locations.** Monitor and evaluate commercial and industrial uses that generate, store, and transport hazardous materials to determine the need for buffer zones or setbacks to minimize risks to residential neighborhoods, schools, parks, and community facilities.

**Policy S-3.3: Hazardous Air Pollution.** Consult with the Southern Coast Air Quality Management District regarding the emissions monitoring of industrial operators that use or produce hazardous materials/toxic compounds.

**Policy S-3.4: Minimize Exposure.** Re-evaluate Manufacturing zones land use regulations to determine the appropriate types of industrial uses to allow, with a particular focus on those that handle or generate large quantities of hazardous materials.

**Policy S-3.5: Contamination Protection.** Protect natural resources—including groundwater—from hazardous waste and materials contamination.

**Policy S-3.6: Oil Drilling and Production.** Promote the gradual consolidation and elimination of oil drilling and production sites to advance the City's climate adaptation and resiliency strategies, local





reduction of greenhouse gases, and land use goals.

**Policy S-3.7: Contamination Remediation.** Consult with the U.S. Environmental Protection Agency and responsible State agencies on the ongoing remediation and cleanup of contaminated properties and groundwater, with aim to recondition sites for productive land uses.

**Policy S-3.8: Agency Collaboration.** Consult with State, federal, and Los Angeles County agencies to develop and promote best practices related to the use, storage, transportation, and disposal of hazardous materials.

**Policy S-3.9: Hazard Mitigation.** Coordinate and integrate hazard mitigation activities with emergency operations plans and procedures.

**Policy S-3.10: Proper Hazardous Materials Management.** Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations.

**Policy S-3.11: Public Awareness.** Develop and implement education and outreach programs to increase public awareness of the risks associated with natural, human-caused, and technological hazards.

**Policy S-3.12: Superfund Sites.** Require companies that contaminate the soil and water to provide the City adequate funding for a safe and prompt cleanup, adequate health care to community members harmed, and adherence to local, State, and federal government policies and programs affecting Superfund sites.

**Policy S-3.13: Soil Remediation.** Encourage the application of new and innovative methods for remediating contaminated soils.

**Policy S-3.14: Regulatory Agency Consultation.** Consult with the Department of Toxic Substance Control, Geologic Energy Management Division, Local Enforcement Agency, and other regulatory agencies to assure that contaminated sites are properly and completely remediated.

#### **GOAL S-4: MINIMIZED RISK OF URBAN FIRES AND THEIR ASSOCIATED ADVERSE EFFECTS**

**Policy S-4.1: Petroleum-related Fire Sources.** Reduce the sources of significant combustion and urban fires, including active producer well sites, active water injection wells, oil industry tank farms and compression plants, and aboveground tanks storing flammable or combustible liquids.



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**Policy S-4.2: New Development Risks.** Evaluate developments and other intensification of uses for a potential increase to the level of fire risk, susceptibility to urban fires, and exposure to high-level fire.

**Policy S-4.3: Underground Sources.** Identify and map underground pipelines that convey various combustible materials and use that information when assessing the suitability of a proposed land use or public improvement.

**Policy S-4.4: Fire Inspections.** Conduct regular fire inspections of industrial and commercial businesses in the City to ensure their compliance with fire safety regulations.

**Policy S-4.5: Fire Prevention Education:** Conduct ongoing local fire safety education and awareness programs for residents and businesses.

## Climate Change and Resiliency

### GOAL S-5: A RESILIENT COMMUNITY WELL PREPARED TO RESPOND AND ADAPT TO CLIMATE CHANGE

**Policy S-5.1: Essential Public Facilities.** Evaluate the resiliency of essential public facilities to risks and hazards of earthquakes, flooding, fire, and other hazards, and address any deficiencies.

**Policy S-5.2: Climate Change and Adaptation Lens.** Integrate climate hazards, adaptation, and resiliency into the update of plans, regulatory codes, and policies.

**Policy S-5.3: Resilient Power Planning.** Identify the top critical City building/facilities in need of protection against power outages and assess the need for power protection and back-up facilities.

**Policy S-5.4: Resilient Building Approaches.** Support building and site improvements that reduce energy and water use and urban heat island effects.

**Policy S-5.5: Vulnerability Assessments.** Evaluate, identify, and put forward strategies to reduce the climate effects on the health of disadvantaged communities and vulnerable populations.

**Policy S-5.6: Heat Response.** Set up early heat wave warning systems, communicate heat wave risks, suggest protective actions, and designate cooling centers that target vulnerable populations.

**Policy S-5.7: Passive Solar Design.** Encourage passive solar design for new development and



community facilities, including cool roofs, architectural features that cool interiors, shade shelter areas, shaded playgrounds, and bus shelter canopies.

**Policy S-5.8: Urban Heat Island Countermeasures.** Integrate solutions to address urban heat island effect, particularly in disadvantaged communities, by utilizing green infrastructure, shading building surfaces, expanding tree canopies over parking lots and expansive pavements, and expanding the urban forest.

**Policy S-5.9: Prioritize Capital Investments.** Apply climate change adaptation criteria for projects that prioritize investments in capital planning and critical infrastructure in higher-risk areas and disadvantaged neighborhoods.

## Emergency Preparedness

### **GOAL S-6: A COMMUNITY WORKING TOGETHER TO AVOID INJURY AND LOSS OF LIFE RESULTING FROM LARGE DISASTER**

**Policy S-6.1: Community Emergency Response and Preparedness.** Support active participation by residents and businesses through volunteer programs focused on emergency preparedness and response and recovery from an emergency event, including specialized programs to address special need and vulnerable populations.

**Policy S-6.2: Emergency Preparedness Plans.** Regularly review and update emergency preparedness and operations plan to create up-to-date disaster management systems. Include in the plans evacuation planning approaches that responds to a multitude of emergency conditions and locations.

**Policy S-6.3: Disaster Preparedness.** Promote coordinated disaster preparedness efforts that help the community learn about disasters and take steps to plan ahead and guard against adverse impacts.

**Policy S-6.4: Emergency Preparedness Education and Training.** Continue to educate and train City staff, residents, students, and the business community regarding appropriate actions to take during an emergency, including the conduct of simulation exercises.

**Policy S-6.5: Disaster Communications.** Improve and maintain an adequate communications system through the creation of redundancies and enhanced use effectiveness.

**Policy S-6.6: Supplies and Equipment.** Maintain and enhance the City's inventory of dedicated emergency preparedness supplies and equipment to meet community needs.



**Policy S-6.7: Training.** Maintain an adequate and fully functional Emergency Operations Center to ensure that City Personnel is trained and prepared to respond to emergency situations and disasters accordingly, including:

- Conduct annual disaster response exercises relevant to the types of disasters affecting the community.
- Continue to work cooperatively with adjacent jurisdictions and regional agencies to address emergency preparedness.
- Maintain the City's Local Hazard Mitigation Plan.
- Keep up to date the Emergency Operations Center Activation Procedures.

## **Emergency Services**

### **GOAL S-7: A FIRE DEPARTMENT SKILLED AT RESPONDING EFFECTIVELY TO THE NEEDS OF THE COMMUNITY**

**Policy S-7.1: Adequate Fire Suppression Resources.** Ensure that the City has adequate Fire Department resources to meet response time standards, keep pace with growth, and provide a high level of service.

**Policy S-7.2: Fire Stations Modernization.** Evaluate the need to replace, upgrade, and/or modernize existing fire stations.

**Policy S-7.3: Fire Technology.** Continue to seek technological and information system advances which will enhance the efficiency and effectiveness of the Fire Department.

**Policy S-7.4: Inter-Agency Coordination.** Seek the highest levels of intra-city and inter-agency coordination of fire activity operations.

**Policy S-7.5: Urban Fire Enforcement.** Enforce fire standards and regulations in the review of building plans and conduct of building inspections.

**Policy S-7.6: Fire Suppression Systems.** Regulate and enforce the installation of fire protection water system standards for new construction projects, including the installation of fire hydrants providing adequate fire flow, fire sprinklers, suppression systems, and methane monitoring.

**Policy S-7.7: Fire Prevention Services.** Provide effective fire prevention services through the review of proposed development projects, evaluation of industrial operations and facilities, examination of the

transport of hazardous materials, and identification of oil and gas pipeline networks.

**Policy S-7.8: Highest Standardization Rating.** Maintain the highest possible Insurance Services Office (ISO) rating for the Fire Department.

**GOAL S-8: A HIGHLY RESPONSIVE, WELL EQUIPED MODERN POLICE FORCE ATTUNED TO COMMUNITY NEEDS**

**Policy S-8.1: Adequate Police Resources.** Maintain adequate resources (stations, personnel, and equipment) to enable the police services to meet response time standards, provide high levels of service, use modern law enforcement practices, and serve as safety ambassadors within the community.

**Policy S-8.2: Cultural Competency Training.** Ensure that all police personnel receive comprehensive cultural competency training to better serve the needs of the City's diverse population.

**Policy S-8.3: Community Policing.** Promote community policing initiatives and expand neighborhood watch and similar programs, such as crime prevention education and citizens' patrol programs.

**Policy S-8.4: Community Engagement.** Expand community engagement with residents, businesses, school districts, and community and neighborhood organizations to develop and expand partnerships to prevent crime, build public trust, and proactively address public safety issues.

**Policy S-8.5: Coordinate Enforcement Tools.** Support streamlining the enforcement and adjudication processes to increase the effectiveness of public safety programs.

**Policy S-8.6: State of the Art Police Practices.** Promote use of technology to improve efficiency, productivity and ensure best practices in policing.

**Policy S-8.7: Agency Management.** Maintain the Police Services Department that continues to promote accountability, transparency, and fairness, and is adaptable to a changing community.

**Policy S-8.8: Service Delivery.** Provide high levels of fair and equitable service and continue to promote the use on non-sworn public safety personnel to maximize the efficiency of sworn police personnel.

**Policy S-8.9: Code Enforcement.** Use of code enforcement personnel to identify public safety hazards and encourage businesses and residents to assist in reducing community risks such as structural hazards, hazardous material, property maintenance, waste, and environmental hazards.



## **GOAL S-9: LIVING AND WORKING ENVIRONMENTS SAFE FROM CRIME**

**Policy S-9.1: Resource Allocation.** Enhance the Police Department’s crime-fighting strategies by strengthening the distinct resources needed to address traffic safety, transport of hazardous materials, quality of life and code enforcement, and community-based intervention and diversion programs.

**Policy S-9.2: Data Tools and Information Systems.** Support an information technology infrastructure to assist in reducing and preventing crime, and encourage the use of technology to provide access to accurate data and quality information.

**Policy S-9.3: Benchmarks for Public Safety.** Keep crime rates, service response times, and property loss rates at the lowest levels possible, and keep crime clearance rates and property recovery at the highest levels.

**Policy S-9.4: Youth-centered Strategies.** Increase coordination between schools and the City to identify and develop effective approaches to juvenile crime concerns and trends affecting the community’s youth. Employ proactive and preventive strategies including support of school-based systems such as school attendance review boards, and Family and Youth Intervention Program Strategies.

**Policy S-9.5: Regional Cooperation and Network.** Integrate regional approaches to reduce crime in the city including intergovernmental relations with neighboring police agencies and the Los Angeles County Sheriff’s Department serving unincorporated and surrounding areas.

**Policy S-9.6: Crime Prevention in Project Design.** Incorporate consideration of public safety in the review of new developments such as site planning, lighting, and active transportation, including the implementation of Crime Prevention through Environmental Design principles in the design of private development projects and public facilities.

**Policy S-9.7: Programming.** Promote youth civic engagement, cultural diversity, and drug awareness programs.



## OPEN SPACE AND CONSERVATION ELEMENT

### Parks and Open Space

#### GOAL COS-1: A VIBRANT PARK SYSTEM THAT MEETS EVOLVING COMMUNITY NEEDS

**Policy COS-1.1: Parkland Acreage and Access.** Strive to maintain a parkland to population ratio of at least 4.0 acres per 1,000 residents and where all residents live within a 10-minute walk to a park or other recreation facility.

**Policy COS-1.2: Use of Unique Property.** Utilize remnant properties along freeways, utility easements, or other corridors for use as recreational amenities or innovative urban open spaces.

**Policy COS-1.3: Recreational Partnerships.** Promote private/public partnerships in the development of open space and recreational facilities in both private and public projects.

**Policy COS-1.4: New Parkland.** Require that new multi-unit residential development incorporate common and private open space facilities for its residents.

**Policy COS-1.5: New Park.** Pursue developing a small urban park north of Los Nietos Road to provide a recreational amenity for this disadvantaged community.

**Policy COS-1.6: Maintenance.** Ensure that the parks and recreation system is operated, maintained, and renovated to achieve user safety and security, sustainability elements, and user satisfaction.

**Policy COS-1.7: Joint-Use Facilities.** Promote joint use of school district properties to expand parkland facilities.

**Policy COS-1.8: Facility Assessments.** Evaluate and report periodically on the physical conditions and the quality of the City's recreational and community services and facilities.

**Policy COS-1.9: Park Improvements.** Ensure park revitalization and improvements are designed to meet the evolving needs of the community over time.

**Policy COS-1.10: Funding.** Seek and leverage grant programs and other available funding sources in the planning, development, maintenance, and acquisition of parkland and open spaces.

**Policy COS-1.11: Industrial and Business Outdoor Space.** Encourage businesses to provide outdoor



## Re-Imagine Santa Fe Springs

2040 GENERAL PLAN

workspace and employee gathering spaces in the work environment that considers employee's technology needs (e.g., Wi-Fi, outlets, communications, or outdoor screens) and weather functionality.

**Policy COS-1.11: New Community/Event Center.** Pursue acquiring land to develop a new community/event center.

### Community and Recreation Programming

#### GOAL COS-2: DIVERSITY OF COMMUNITY SERVICES AND PROGRAMMING

**Policy COS-2.1: Custom Programming.** Assess the educational, cultural, health and wellness, and social needs of the community on a regular basis, and design recreational and social service programs that promote and support the wellbeing and healthy development of all community members.

**Policy COS-2.2: Special Events and Activities.** Operate and expand citywide special events and activities that are popular with the community.

**Policy COS-2.3: Community Relationships.** Provide recreational and social services in a professional, courteous, and ethical manner to strengthen strong relationships between the City and community.

**Policy COS-2.4: Volunteerism.** Foster public volunteerism to assist in staffing community programs and events, particularly targeting teenagers, young adults, and seniors.

**Policy COS-2.5: Health and Wellness.** Design recreational and social service programming and services that consist of health and wellness program—and specifically those that support healthy physical activities and nutrition.

**Policy COS-2.6: Low-Income Residents.** Design recreational and social service programming and services that target low-income residents living in disadvantaged communities.

**Policy COS-2.7: Library Services.** Design library services and programming to address changing demographics.

**Policy COS-2.8: Community Gardens.** Expand community gardens program to ensure all who wish to participate can—and in convenient locations.

**Policy COS-2.9: Collaboration.** Collaborate with non-profit groups and community-based services providers and organizations to strengthen social services and meet community needs.





## Re-Imagine Santa Fe Springs

2040 GENERAL PLAN

**Policy COS-2.10: Community Facilities.** Maintain and improve the quality of community centers and facilities.

### Arts and Culture

#### GOAL COS-3: CELEBRATION OF THE CITY'S HISTORIC, CULTURAL, AND ARTISTIC RICHNESS

**Policy COS-3.1: Outdoor Art Sculptures.** Expand the collection of permanent outdoor sculptures citywide through the Heritage Artwork in Public Places Program. Ensure that future artwork additions are appropriate, of superior quality, adequately funded, maintained, placed in unrestrictive settings, and representative of Santa Fe Springs' culture and aesthetic.

**Policy COS-3.2: Visual and Performing Arts.** Promote and support children's educational programs that highlight the visual and performing arts.

**Policy COS-3.3: Multi-Cultural Venue.** Consider developing a multicultural museum and center or expand or improve on established facilities.

**Policy COS-3.4: Cultural Diversity.** Recognize the community's ethnic and cultural diversity through programming, public art, and special events.

**Policy COS-3.5: Art Fest.** Continue to improve and expand the City's annual Art Fest event.

### Open Space for Natural Resource Preservation

#### GOAL COS-4: CLEAN SURFACE WATER, DRAINAGES, AND GROUNDWATER

**Policy COS-4.1: Groundwater Supply Remediation:** Work with appropriate agencies and seek funding as appropriate to clean local groundwater to safe conditions.

**Policy COS-4.2: Contaminated Soils.** Coordinate with responsible agencies to avoid threats that contaminated soils pose to groundwater quality.

**Policy COS-4.3: Groundwater Contamination.** Evaluate all proposed non-residential development plans, activities, and uses for their potential to create groundwater contamination hazards from point and non-point sources and confer with other appropriate agencies to assure adequate review.



**Policy COS-4.4: Runoff Pollution Prevention** Require that new developments incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins.

#### **GOAL COS-5: AN EXPANSIVE URBAN FOREST AND RELATED BENEFITS**

**Policy COS-5.1: Native Plants.** Encourage the use of native and climate-appropriate tree and plant species.

**Policy COS-5.2: Urban Forest.** Create a diverse and healthy urban forest on public and private lands utilizing drought-tolerant, shade trees with non-invasive root systems that are compatible with sidewalks and do not produce excessive debris. Select tree species that are not easily damaged by the high-profile trucks that predominate on the City's roadways.

**Policy COS-5.3: Tree Canopy.** Expand the urban tree canopy along streets and within expansive parking lots— connecting parks, schools, activity areas, commercial centers, and transit stops—to create comfortable walking conditions.

**Policy COS-5.4: Green Buffers.** Expand trees and landscaping to build an extensive green buffer between residential neighborhoods and freeways, rail corridors, and industrial zones to help reduce air pollution impacts. Prioritize residential neighborhoods that are designated as disadvantaged communities.

**Policy COS-5.5: Environmental Benefits.** Expand urban greening to reduce air and noise pollution, reduce and clean urban runoff, increase groundwater recharge, improve ecological diversity, and help cool neighborhoods by minimizing heat island effects.

**Policy COS-5.6: Bird Nesting.** Protect migratory and native bird nesting sites on trees and landscaping during construction and/or tree removal or trimming, with special considerations during bird nesting season and within parkland, easements, or flood control areas along the San Gabriel River and tributaries.

### **Open Space for the Manage Production of Resources**

#### **GOAL COS-6: OIL EXTRACTION PRACTICES THAT MINIMIZE ENVIRONMENTAL HARM AND COMMUNITY DISRUPTION.**



**Policy COS-6.1: Consolidation of Pump Locations.** Continue to encourage oil production companies to consolidate pumping operations and relocate pumps away from existing and planned residential uses.

## **Natural Resource Conservation**

### **GOAL COS-7: REDUCED WATER USE**

**Policy COS-7.1: Water-efficiency Programs.** Provide incentives and penalties to businesses and residents to reduce water use over the long term and as part of standard operating practices—not just in short-lived response to drought conditions.

**Policy COS-7.2: Increased Use of Recycled Water.** Support initiatives of the Los Angeles County Sanitation Districts to increase availability and use of recycled wastewater.

### **GOAL COS-8: ENERGY EFFICIENT OPERATIONS AND STRUCTURES**

**Policy COS-8.1: Efficiency of Existing Buildings:** Improve energy efficiency of existing and new buildings, such as adding energy efficient appliances and fixtures, improvements to windows, reflective shingles, roof and wall insulations, and other green building strategies.

**Policy COS-8.2: Efficiency City Operations.** Improve efficiency of municipal operations, public infrastructure, and City facilities and structures.

**Policy COS-8.3: Energy Efficient Strategies.** Encourage energy-efficient strategies of all new projects (public and private), including appropriate structure orientation and site design, passive solar approaches, the use of shade trees to maximize cooling, and reduce fossil fuel consumption for heating and cooling.

**Policy COS-8.4: Renewable Energy Industrial Facilities.** Promote the use of renewable energy and/or solar energy for large industrial operations on building rooftops or on large properties and support solar-ready buildings for large industrial buildings and warehouses.

**Policy COS-8.5: Zero Net Energy.** Pursue Zero Net Energy standards for new public facilities, ensuring new buildings produce as much clean renewable energy as it consumes over the course of a year.

### **GOAL COS-9: AIR QUALITY CONDITIONS THAT IMPROVE OVER TIME**



**Policy COS-9.1: Land Use and Transportation.** Allow urban infill and transit-oriented development within walking distance (10-minute walk or half-mile distance) of transit stops and stations to reduce vehicle trips and trip lengths.

**Policy COS-9.2: Evaluate Trucking Emissions.** Support low emission solutions and use of alternative fuels to improve trucking fleet fuel efficiency.

**Policy COS-9.3: Reducing Greenhouse Gas Emissions.** Identify the specific activities/uses that the City will undertake to reduce greenhouse gas emissions.

**Policy COS-9.4: Minimize Air Quality Impacts.** Minimize the air quality impacts of new development projects on established uses and nearby sensitive receptors.

**Policy COS-9.5: Education Programs.** Partner with regional agencies to establish public education programs that provide information on ways to reduce and control emissions and make clean air choices.

**Policy COS-9.6: Alternative Fuels.** Prioritize alternative fuel vehicles for City use, and encourage new residential, commercial, and industrial development be equipped with electric vehicle charging stations.

**Policy COS-9.7: Coordination.** Provide updated data to the Southern California Association of Governments to assist in updates to the Sustainable Communities Strategies and Regional Transportation Plan.

**Policy COS-9.8: Air Quality and Climate Change Analyses.** Require detailed air quality and climate change analyses and mitigation plans for all applications that have the potential to adversely affect air quality.

## **GOAL COS-10: SUBSTANTIALLY REDUCED SOLID WASTE PRODUCTION**

**Policy COS-10.1: Waste Recycle.** Identify industries and businesses that recycle waste materials for productive reuse, and develop a strategy to bring those businesses to the city as part of a “green” business development strategy.

**Policy COS-10.2: Reduce Waste Production.** Work with businesses in the city to identify strategies and practices that can reduce waste production.

**Policy COS-10.3: Waste Reduction Education.** Support educational initiatives that create awareness in



the business and residential communities of purchasing practices that can reduce waste production.

## Appendix C: Existing Conditions Report

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PUBLIC REVIEW DRAFT

CITY OF SANTA FE SPRINGS

# EXISTING CONDITIONS TECHNICAL REPORT

2040 GENERAL PLAN



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August 2020



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PUBLIC REVIEW DRAFT

CITY OF SANTA FE SPRINGS

# EXISTING CONDITIONS TECHNICAL REPORT

2040 GENERAL PLAN

August 2020

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# CHAPTER 1: INTRODUCTION

## EXISTING CONDITIONS TECHNICAL REPORT



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**Santa Fe Springs**

2040 GENERAL PLAN





# CHAPTER 1: INTRODUCTION

## EXISTING CONDITIONS TECHNICAL REPORT

INTRODUCTION

REPORT ORGANIZATION

WHAT IS A GENERAL PLAN?

CITY CONTEXT



## INTRODUCTION

The General Plan is a long-range policy document that provides guidance to residents, businesses, and community leaders on topics related to land use, transportation, housing, parks, community services, safety and hazards, equity, and infrastructure, among many others. Santa Fe Springs last updated its General Plan in the early 1990s, over 25 years ago. The General Plan update will address new State laws, integrate modern and forward-thinking planning approaches, and provide strategies to respond to challenges the City faces.

The Existing Conditions Technical Report identifies baseline conditions—a snapshot of Santa Fe Springs in 2020—to inform the General Plan Update process. This report provides a foundation for preliminary policy and implementation recommendations based on the conditions described and discussions between City staff and the General Plan consultant team.

## REPORT ORGANIZATION

This report is organized into six chapters, each covering different topics to provide an overview of the City of Santa Fe Springs in 2020. Each chapter topic area includes a list of key considerations: important, succinct points that define the critical issues that the General Plan will address.

- **Chapter 1: Introduction.** This chapter provides an overview of the Existing Conditions Technical Report.
- **Chapter 2: Community Profile.** This chapter provides a snapshot of demographic and housing characteristics: population, households, special population groups, and employment.
- **Chapter 3: Land Use and Community.** This chapter identifies existing land use patterns, the regulatory land use framework, community and educational facilities, parks and recreation, and cultural resources.
- **Chapter 4: Transportation and Infrastructure.** This chapter focuses on public transit, freight and goods movement, bicycle and pedestrian facilities, and vehicle collision history. The infrastructure component addresses water, wastewater, and stormwater facilities.
- **Chapter 5: Public Safety and Hazards.** This chapter describes emergency services and programs, local hazards (naturally occurring and human caused), and pollution and hazardous materials.
- **Chapter 6: Environmental Justice and Health.** This chapter addresses disadvantaged communities, environmental protection, equity, housing burden, health and well-being, health conditions, and comparative healthy indicators.



*Heritage Springs Business Complex*



*Miro Apartments at Norwalk Boulevard near Telegraph Road*



## WHAT IS A GENERAL PLAN?

Every county and city in California is required by State law to prepare and maintain a planning document called a general plan. A general plan serves as the jurisdiction's "constitution" or "blueprint" for decisions concerning land use, housing, transportation, public safety, resource conservation, and equity. All specific plans, subdivisions, public works projects, and zoning decisions must be consistent with the jurisdiction's general plan.

A general plan has four defining features:

- **General.** A general plan provides general guidance for future land use, transportation, environmental, services, and resource decisions.
- **Comprehensive.** A general plan covers a wide range of social, economic, infrastructure, and natural resource issues. The issues include land use, urban development, housing, transportation, public facilities and services, recreation, agriculture, biological resources, and many other topics.
- **Long Range.** A general plan provides guidance on achieving a long-range vision for a city. To guide decisions, the general plan includes goals, policies, and implementation programs that address both near-term and long-term needs. The Santa Fe Springs General Plan looks to the year 2040 (roughly 20 years in the future).
- **Integrated and Coherent.** The goals, policies, and implementation programs in a general plan present a comprehensive, unified program for development and resource conservation. A general plan uses a consistent set of assumptions and projections to assess future demands for housing, employment, and public services (e.g., infrastructure). A general plan has a coherent set of policies and implementation programs that enables residents to understand the vision of the general plan, and enables landowners, businesses, and industry to be more certain about how they will be implemented.

## CITY CONTEXT

Santa Fe Springs is one of the 27 Gateway Cities, a collection of Los Angeles County cities located between the City of Los Angeles and Orange County. The following lists key features of Santa Fe Springs.

- The City's land area is approximately nine square miles, with nearly 79 percent of the land area devoted to industrial and commercial uses.
- Per the California Department of Finance Demographic Research Unit, the City's 2020 population consists of 18,295 persons and 5,514 housing units. Of the housing units, 63 percent are single-family housing units, 33 percent are multi-family housing units, and two percent are mobile homes.
- According to Esri Community Analyst's Business Summary for Santa Fe Spring, there are 3,741 businesses in the City, employing approximately 48,871 employees. Nearly 30 percent of the employees are in manufacturing-related business.
- The City manages 80.3 acres of parkland across 15 park and recreation facilities, including the Clark Estate, the Santa Fe Springs Aquatics Center, and the Santa Fe Springs Community Garden.
- The City and surrounding Los Angeles County areas consist of four school districts operating 13 schools, which enrolled nearly 9,000 students during the 2019/20 school year.



*Heritage Park's Tankhouse Windmill building*





## Regional Location

Santa Fe Springs is located in southeast Los Angeles County (see Figure 1-1), along the Interstate 5 corridor. The City is bordered by the cities of Downey, Pico Rivera, Whittier, La Mirada, Cerritos, and Norwalk. Adjacent unincorporated areas within the jurisdiction of Los Angeles County include Los Nietos, West Whittier, and South Whittier. Santa Fe Springs is strategically located with access to major transportation corridors, including the Interstate 605 (I-605) and Interstate 5 (I-5) freeways. Santa Fe Springs is 14 miles south of downtown Los Angeles and 32 miles north of downtown Santa Ana in Orange County via the I-5 freeway. Santa Fe Springs is also traversed by the Union Pacific and BNSF Railway rail corridors.

## Planning Area

The General Plan planning area encompasses all properties within the incorporated City limits, as well as unincorporated properties within the City's sphere of influence (Figure 1-2). State law defines a sphere of influence as the probable physical boundary and service area of a local agency, as determined by the Local Agency Formation Commission (Cal. Gov't. Code §56076). Planning for the sphere of influence is important because development outside of the Santa Fe Springs city limits has the potential to affect neighborhoods and business districts within the City. This is especially true for the adjacent unincorporated areas of Los Nietos, West Whittier, and South Whittier. Many residents and businesses in these areas have Whittier addresses but may define themselves as part of the Santa Fe Springs community.

Figure 1-1: Regional Location

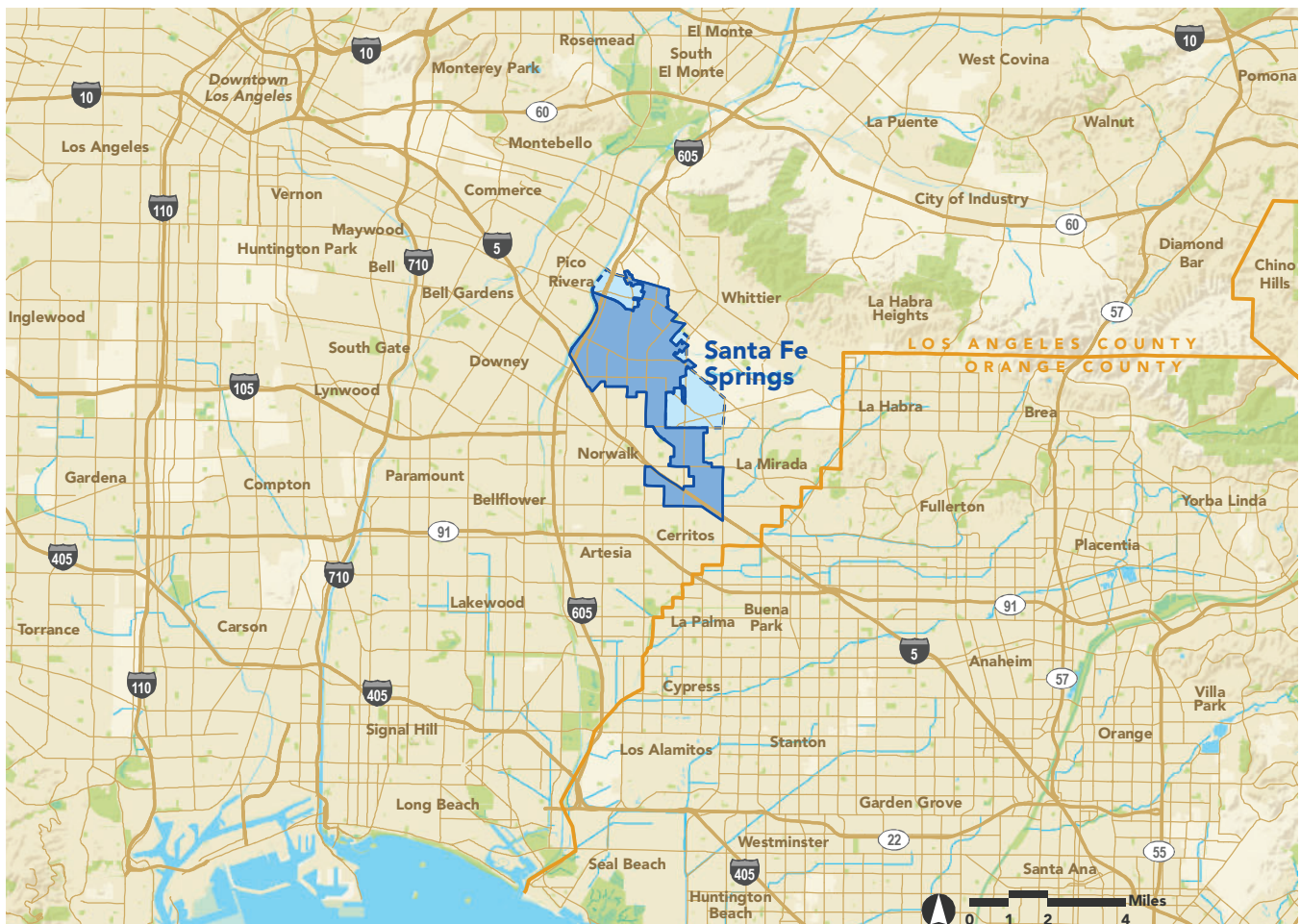
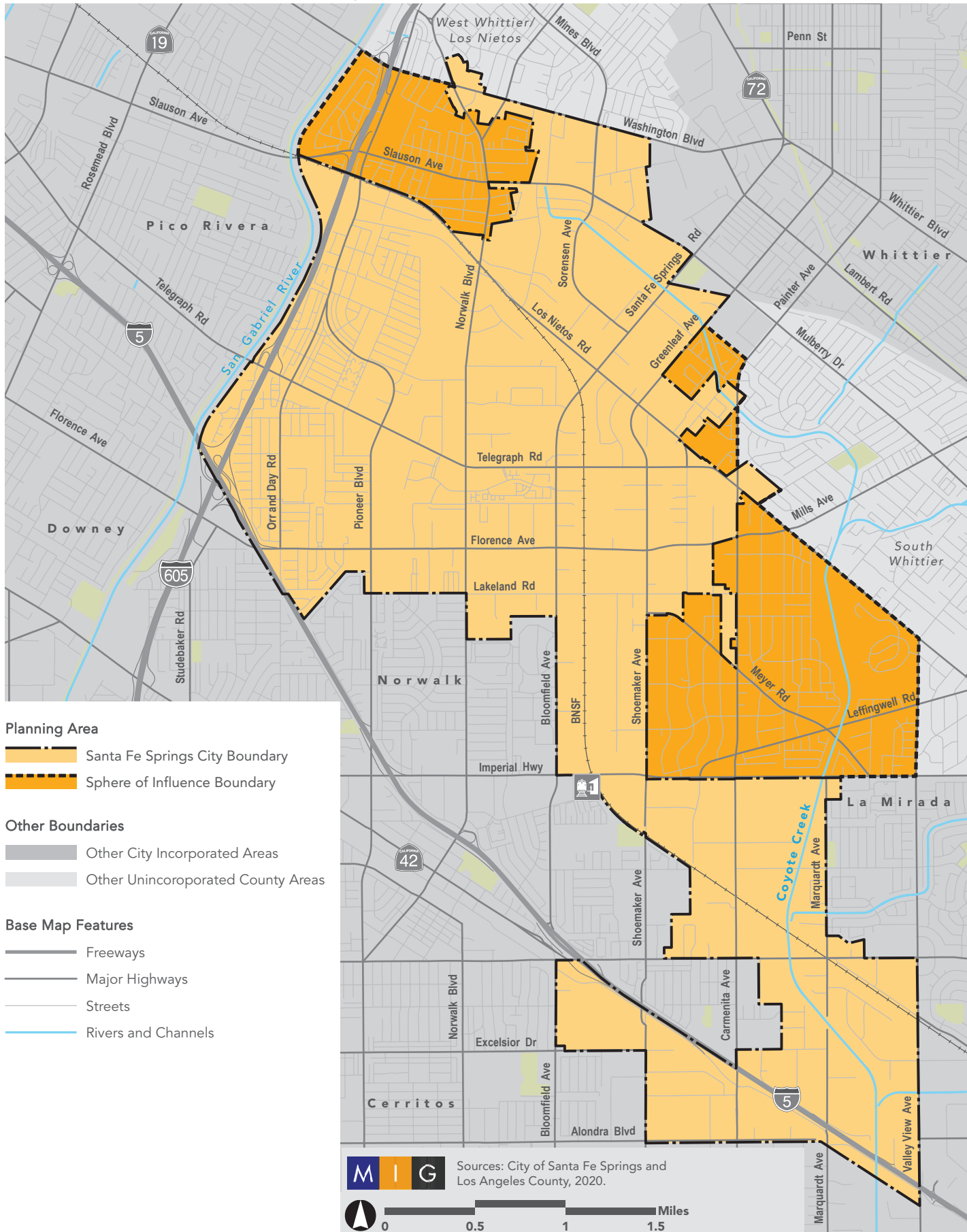


Figure 1-2: Planning Area





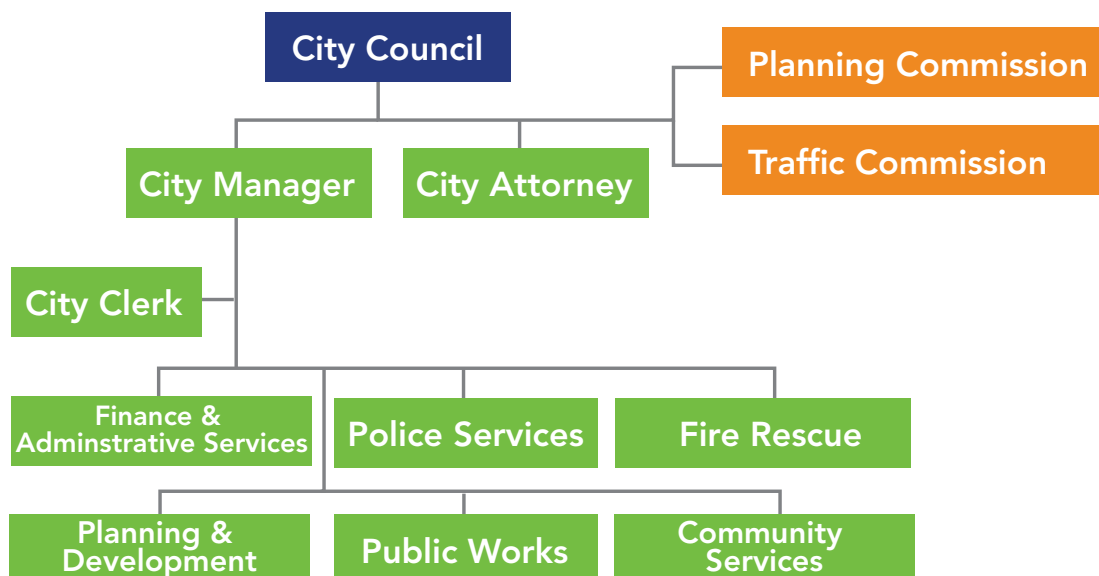
The City of Santa Fe Springs encompasses 8.9 square miles (77% of Planning Area). The sphere of influence includes 2.6 square miles (23% of Planning Area). The Planning Area is 11.5 square miles. While the City has no formal authority within the sphere of influence, it is empowered by State law to consider areas that bear relation to the City's future in the event property owners within the sphere seek to annex to Santa Fe Springs.

### Santa Fe Springs Governance Context

Santa Fe Springs operates as a general law city and utilizes the council-manager form of government. Five City Council members are elected for four-year terms. The Mayor is selected annually from among the five City Council members. The City Council is responsible for City ordinances, operating resolutions, budget adoption and the appointment of committee members. Standing committees, boards, and commissions provide input to the City Council.

The City Manager administers the policies and directives approved by the City Council. The City Manager appoints an Executive Management Team, which includes six department heads (see Figure 1-3 for City's organization chart).

Figure 1-3: City Organizational Chart





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## CHAPTER 2: COMMUNITY PROFILE

### EXISTING CONDITIONS TECHNICAL REPORT



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2040 GENERAL PLAN





## **CHAPTER 2: COMMUNITY PROFILE**

### EXISTING CONDITIONS TECHNICAL REPORT

INTRODUCTION

POPULATION CHARACTERISTICS

EMPLOYMENT

HOUSEHOLD AND HOUSING STOCK CHARACTERISTICS



## INTRODUCTION

This chapter summarizes key demographic, economic, and housing characteristics for Santa Fe Springs. Tracking demographic changes can help City leaders better anticipate and respond to residents' evolving needs and priorities. Each section includes a discussion of key considerations for the Santa Fe Springs 2040 General Plan.



**16,342**  
1960 population

## POPULATION CHARACTERISTICS

This section addresses population, age, race and ethnicity, educational attainment, and income in Santa Fe Springs. Demographic data shape and reflect a city's identity and can be used to inform decisions that support residents and their needs.



**18,295**  
2020 population

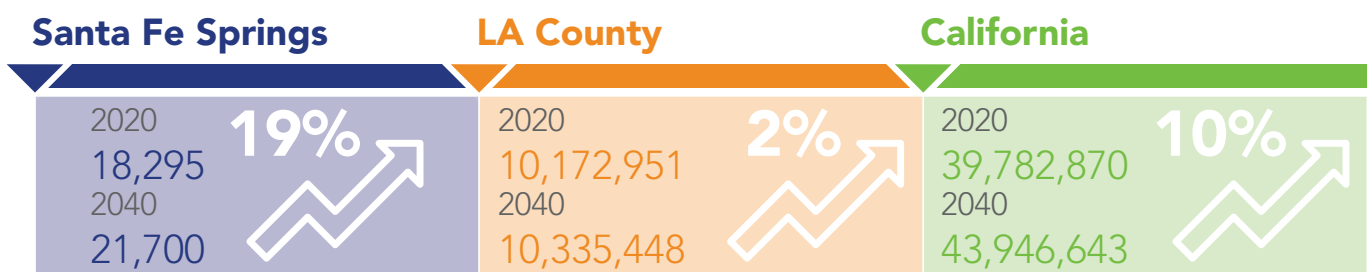
(12% growth between  
1960 and 2020)

### Population Growth Trends

According to the State Department of Finance, the population in Santa Fe Springs in 2020 was 18,295, see Table 2-1 and Figure 2-2. Prior to Santa Fe Springs' incorporation in 1957, local growth was tied to the discovery of oil and other natural resources. In the two decades following incorporation, the population dipped slightly, but since 1980, the population has steadily increased at an annual rate of 0.6%. Between 2000 and 2020, total population increased by 1,882, to 18,295, with this increase largely attributable to construction of the Villages at Heritage Springs development on a former oil field, a 50-unit townhome development

(iL Borgo Townhomes), and the 144-unit senior housing development (Little Lake Village Senior Apartments). During this 20-year period, the City's population growth rate of 11% was higher than the Los Angeles County rate of 7%. The Southern California Association of Governments (SCAG) forecasts predict a steady population increase through 2040, see Figure 2-1.

Figure 2-1: Projected Population Growth (2020-2040)



Source(s): Dept of Finance 2020 E-5 Population and Housing Estimates, Dept of Finance 1850-2010 Historical Census Populations, Dept of Finance 2010-2060 P-1 State Population Projections, SCAG RTP/SCS Demographics and Growth Forecast.

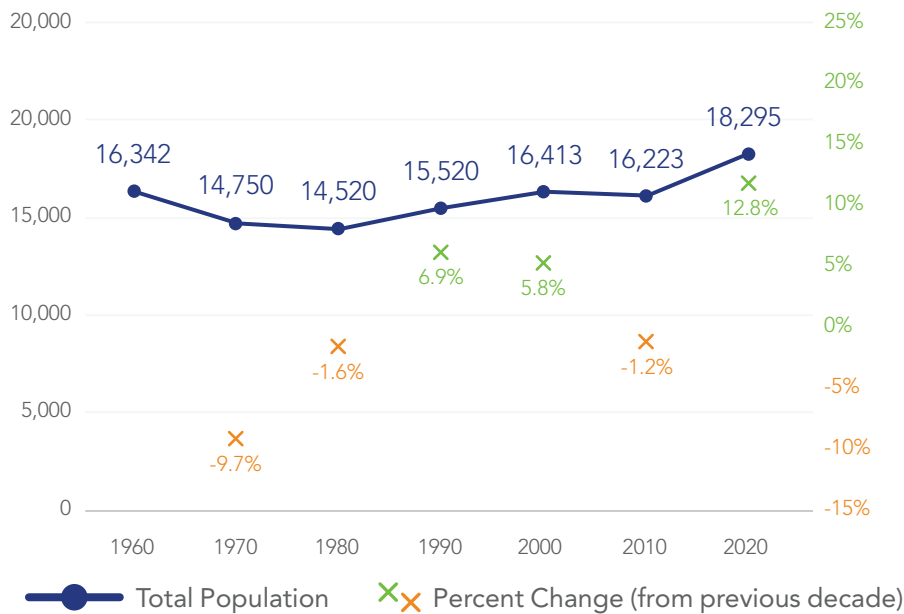


Table 2-1: Population Growth

Year	Santa Fe Springs		LA County		California	
	Population	Percent Change	Population	Percent Change	Population	Percent Change
1960	16,342	-9.70%	6,038,771	16.60%	15,717,204	27.10%
1970	14,750	-1.60%	7,041,980	6.20%	19,971,069	18.50%
1980	14,520	6.90%	7,477,238	18.50%	23,667,764	25.70%
1990	15,520	5.80%	8,863,164	7.40%	29,760,021	13.80%
2000	16,413	-1.20%	9,519,338	3.10%	33,871,653	10.00%
2010	16,223	12.80%	9,818,605	3.60%	37,253,956	6.80%
2020	18,295	-	10,172,951	2.00%	39,782,870	6.20%
2030 (projection)	-	-	10,380,446	-0.40%	42,263,654	4.00%
2040 (projection)	21,700	-	10,335,448	-2.60%	43,946,643	2.10%

Source(s): Dept of Finance 2020 E-5 Population and Housing Estimates, Dept of Finance 1850-2010 Historical Census Populations, Dept of Finance 2010-2060 P-1 State Population Projections, SCAG RTP/SCS Demographics and Growth Forecast.

Figure 2-2: Santa Fe Springs Population Growth Trends



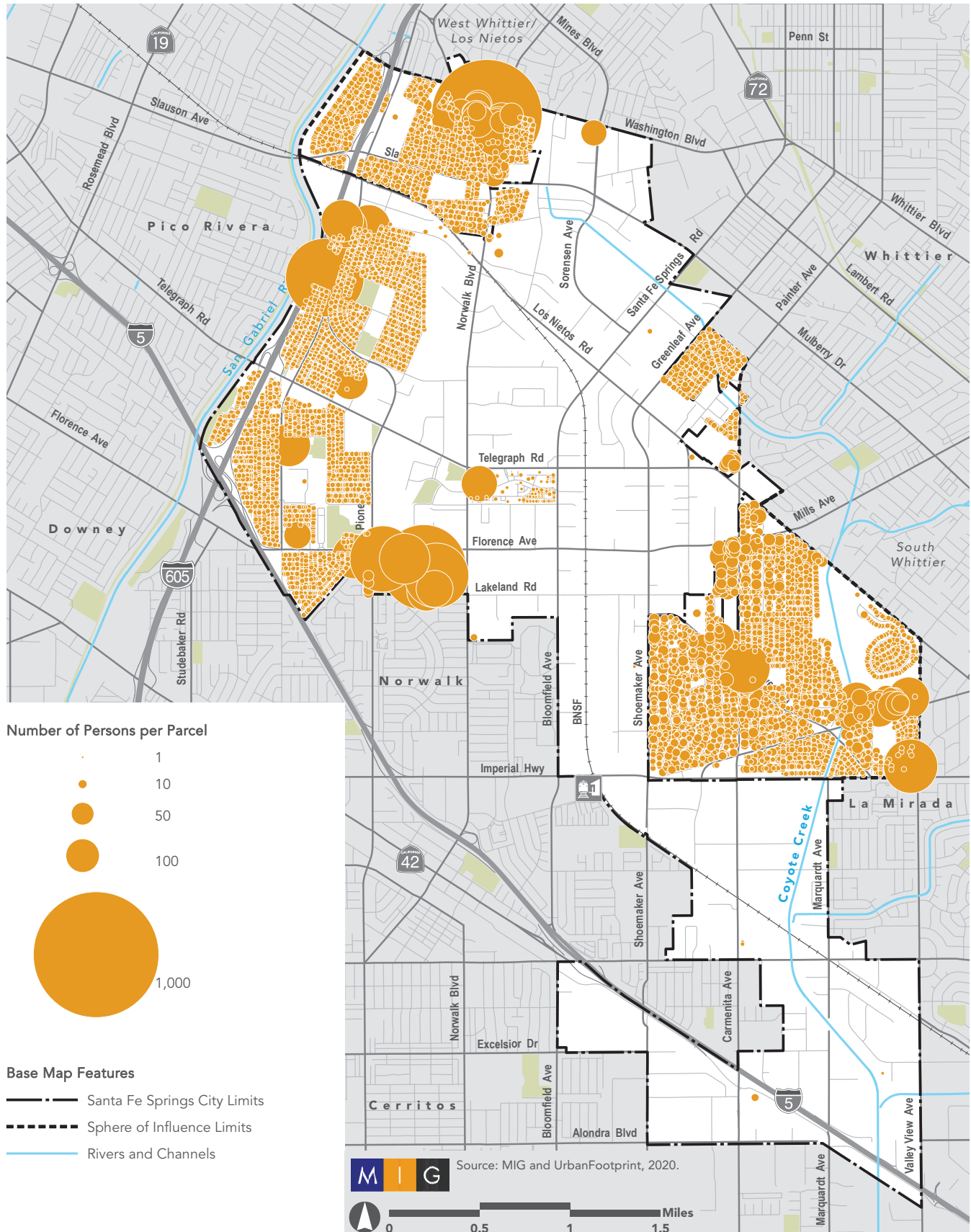
Source(s): Dept of Finance 2020 E-5 Population and Housing Estimates, Dept of Finance 1850-2010 Historical Census Populations, Dept of Finance 2010-2060 P-1 State Population Projections, SCAG RTP/SCS Demographics and Growth Forecast

Figure 2-3 identifies the population density throughout the Planning Area. The areas with the largest population densities are along Florence Avenue, Washington Boulevard, and Pioneer Boulevard, just south of Slauson Avenue. These areas tend to be where multi-family

housing developments are located, including apartments and condominiums.

# Figure 2-3: Population Density

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## Age Characteristics

Age distribution is a key indicator of housing and service needs. California, Los Angeles County, and Santa Fe Springs have similar age group characteristics. The median age for residents in all three jurisdictions is 36 years old. Since 2010, the median age in Santa Fe Springs has increased from 35 to 36.

The largest individual age groups in Santa Fe Springs (each comprising 14% of the total population) are 15 to 24 years old, 25 to 34 years old, and 35 to 44 years old. These age groups represent a working population, see Figure 2-4.

Since 2010, the greatest shift occurred in the 65 to 74 years old age group, with an 82% increase. Overall, the proportion of older adults is growing in Santa Fe Springs with a 29% increase in residents 65 years old and over, from 1,935 to 2,486. Likewise, there has been an increase in the percentage of residents 65 years old and over in Los Angeles County (27%) and California (31%) since 2010.



# 36

**Santa Fe Springs  
Median Age**



## Under 18

23% Santa Fe Springs  
22% LA County  
23% California



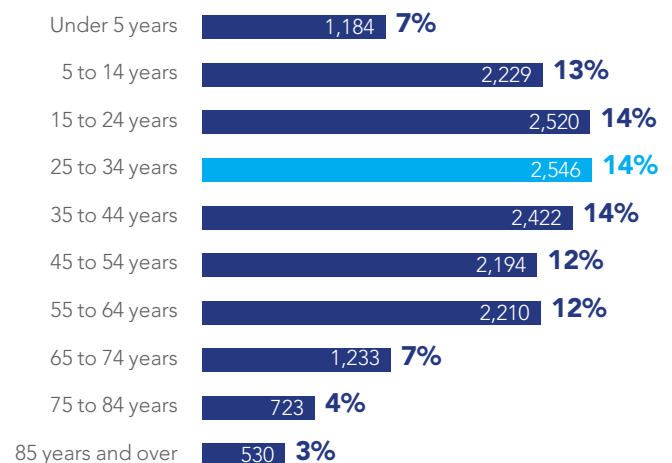
## Over 65

14% Santa Fe Springs  
13% LA County  
14% California



Santa Fe Springs residents age 5 to 14 represent 13% of the total population.

Figure 2-4: Age Range



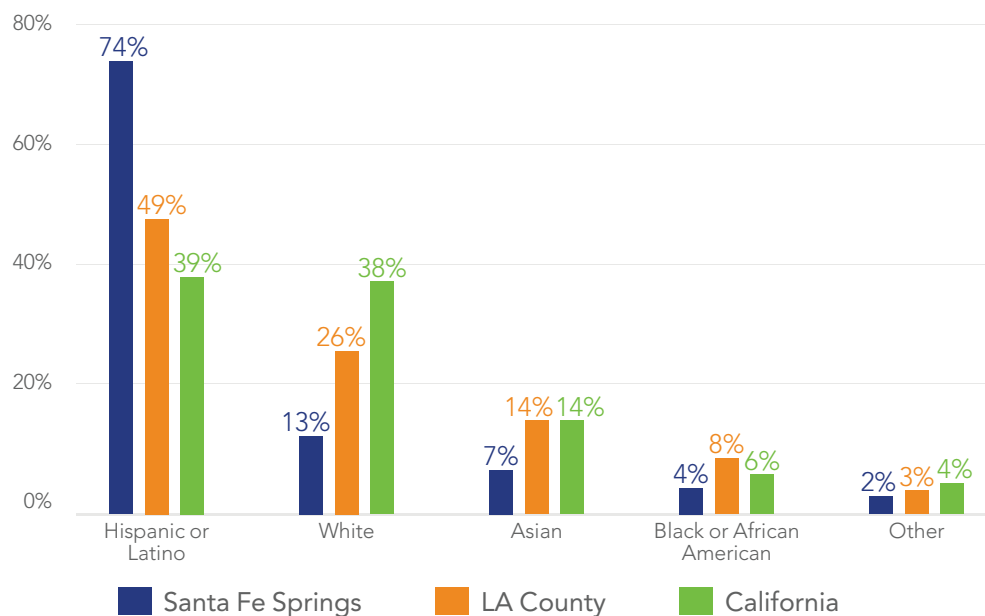


## Race and Ethnicity

The population in Santa Fe Springs is predominantly of Hispanic or Latino origin (74%), a proportion higher than that of Los Angeles County (49%) and California (39%). Most Hispanic residents (69%) are of Mexican descent. see Figure 2-5 and Figure 2-6.

Fifty-five percent of the total growth in population since 2010 has been of people of Asian descent. This corresponds with trends in many parts of east Los Angeles County.

Figure 2-5: Race and Ethnicity



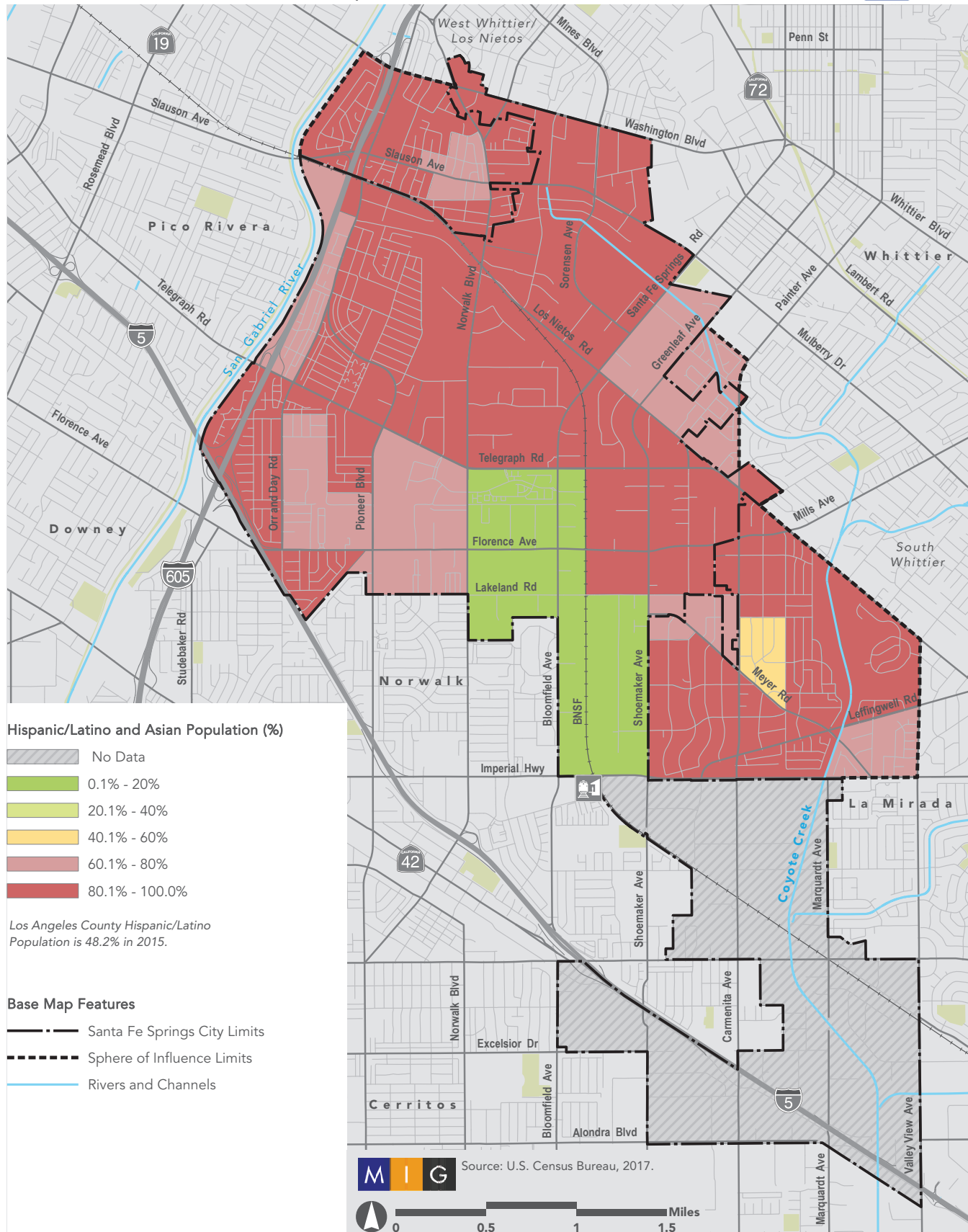
Note(s): 'Other' includes Some other race alone, Two or more races, American Indian and Alaska Native alone, and Native Hawaiian and Other Pacific Islander alone.

Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.

# Figure 2-6: Hispanic/Latino Population



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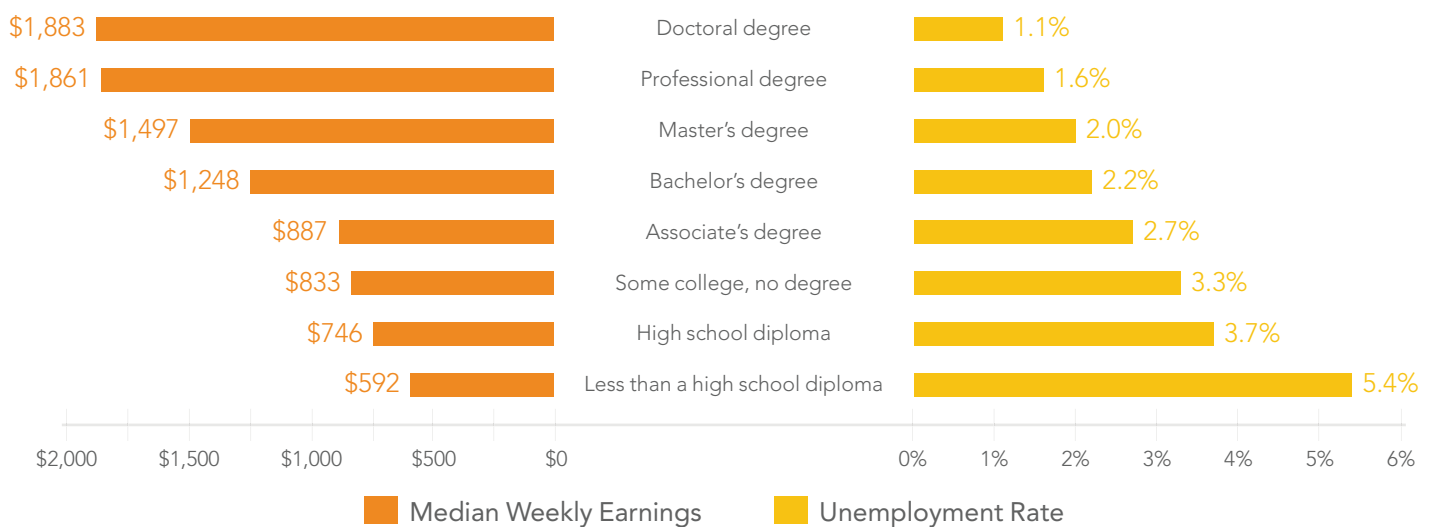
## Educational Attainment

Educational attainment is an important indicator of income level and therefore, has a direct impact on quality of life, including the ability to afford housing. Higher education attainment is an indicator of higher earnings and lower unemployment rates. According to the U.S. Bureau of Labor Statistics, workers age 25 and over who have less education than a high school diploma had the highest unemployment rate (5.4%) and lowest median weekly earnings (\$592) in 2019 among those at all

education levels, see Figure 2-7. Workers with graduate degrees had the lowest unemployment rates and highest earnings.

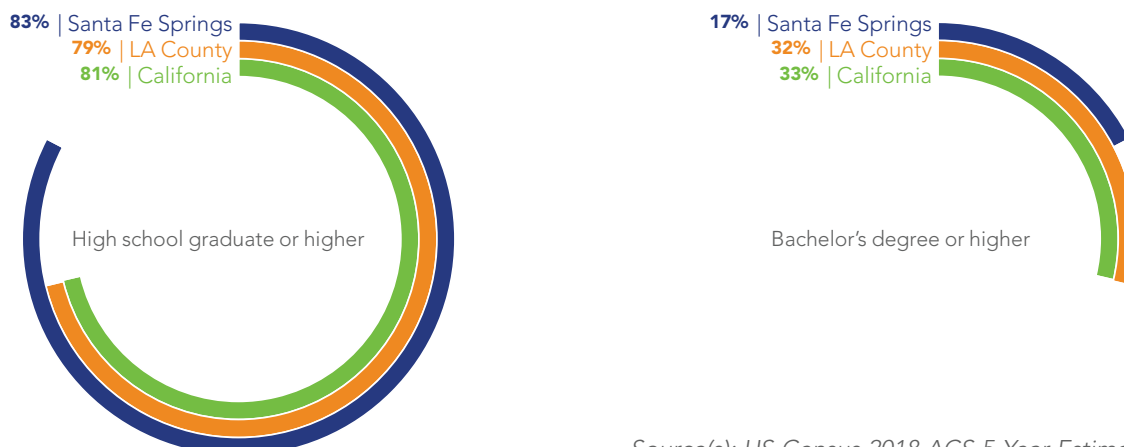
Eighty-three percent of Santa Fe Springs residents have at least a high school diploma (or equivalent), compared to 79% and 81% for Los Angeles County and California, respectively. Proportionately, Santa Fe Springs falls behind the County and State averages once attainment reaches a Bachelor's degree and graduate or professional degree, see Figure 2-8.

Figure 2-7: Earnings and Unemployment Rate by Educational Attainment



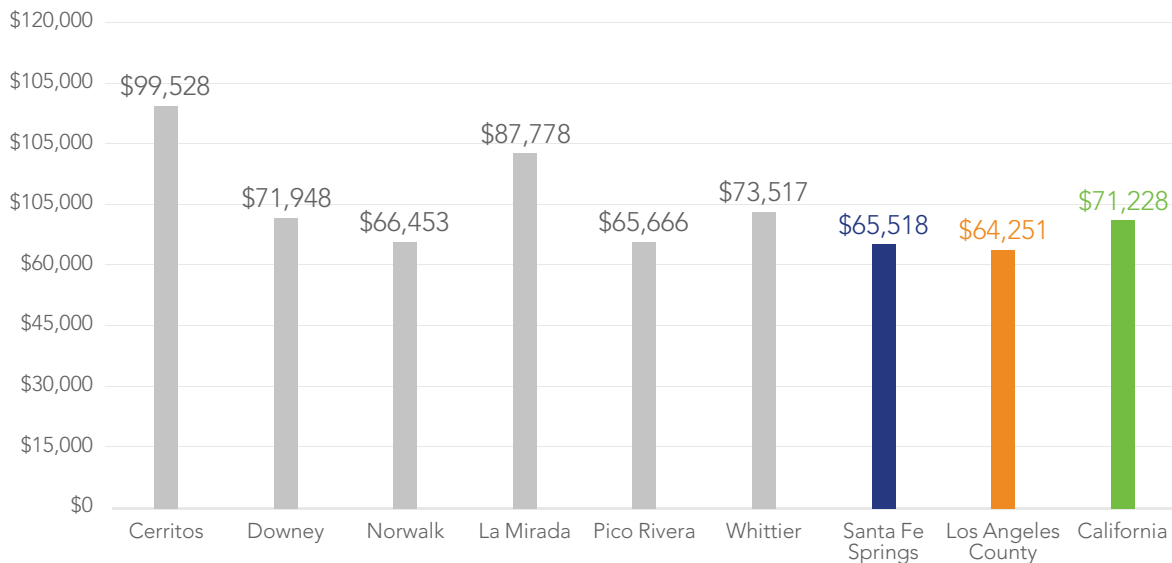
Note(s): Data are for persons age 25 and over, Current Population Survey. Earnings are for full-time wage and salary workers.  
Source(s): US Bureau of Labor Statistics, May 2020.

Figure 2-8: Educational Attainment



Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.



**Figure 2-9: Regional Snapshot of Median Household Income**

Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles

### Income

Household income is one of the most important factors in determining a household's ability to balance housing costs with other basic necessities. The 2018 median household income for Santa Fe Springs residents was \$65,518, which is in line with the Los Angeles County median (\$64,251) but 8% less than the State median (\$71,228). Although household income in Santa Fe Springs increased at a higher rate (21%) than in the State (17%) and County (16%) since 2010, the City has the lowest household income when compared to neighboring cities, see Figure 2-9 and Figure 2-10.

- The population in Santa Fe Springs is predominantly of Hispanic or Latino origin (74%), a proportion higher than that of Los Angeles County (49%) and California (39%).
- A population that has a high percentage of residents without a high school diploma, or equivalent, can be expected to earn less and experience higher unemployment rates, according to the Bureau of Labor Statistics. Although the percentage of Santa Fe Springs residents without a high school diploma or equivalent is lower (19%) than in Los Angeles County (27%) and California (10%), residents with a Bachelor's degree or higher drops off to almost half (at 17%) of the County and State percentages (32% and 33%, respectively).
- In 2018, residents in Santa Fe Springs made 8% less than the State average household income.
- Since 2010, household income in Santa Fe Springs has increased by 21%, four and five percent higher than the State and County increases, respectively.
- At \$65,518 in 2017, Santa Fe Springs has the lowest household income when compared to neighboring cities.

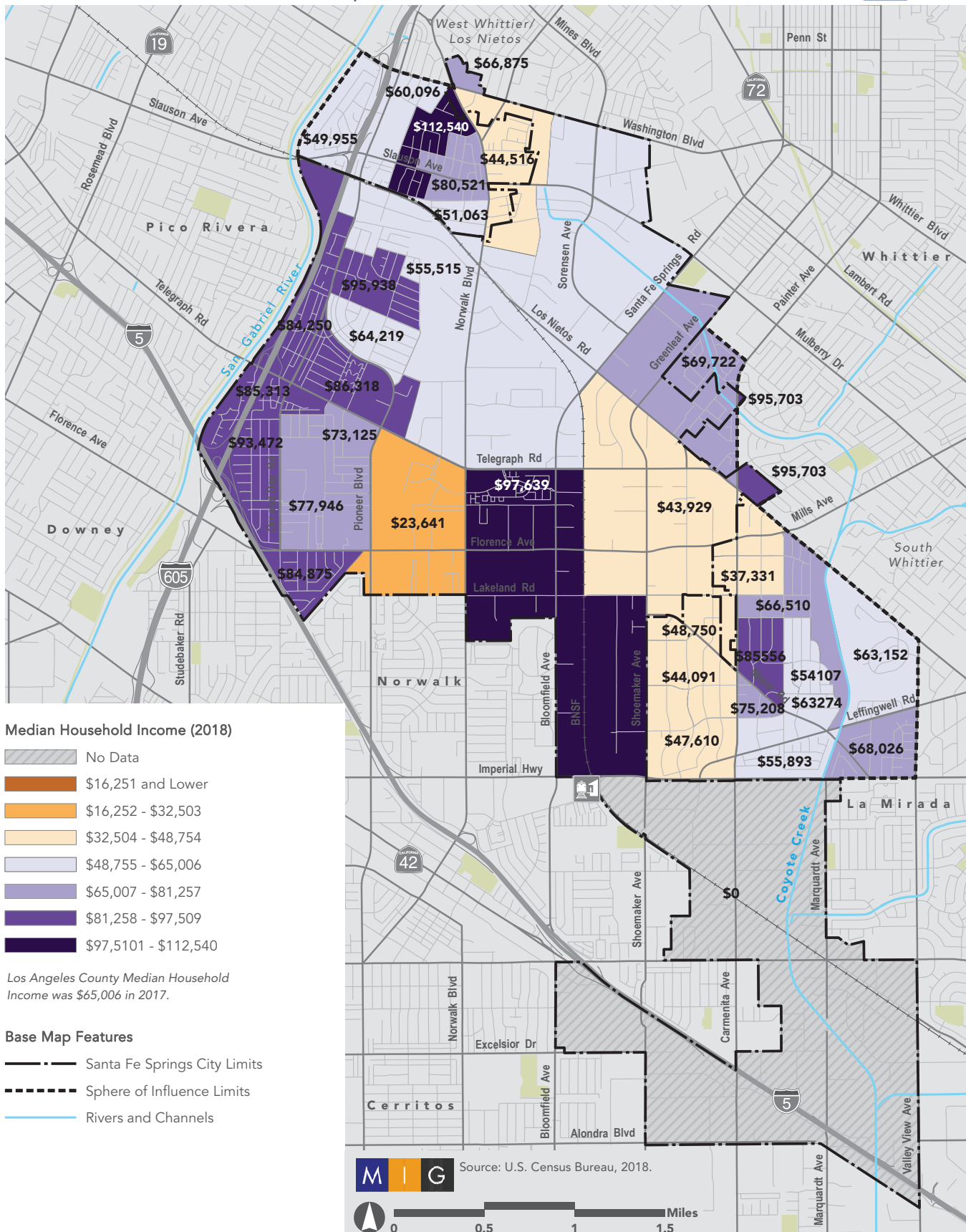


### Key Considerations

- The population in Santa Fe Springs is projected to grow 19% between 2020 and 2040, which is a higher rate than Los Angeles County (2%) and California (10%).
- The percentage of residents 65 years of age and older has increased since 2010 in Santa Fe Springs (by 29%), Los Angeles County (by 27%), and California (by 31%).
- Although the population in Santa Fe Springs is young overall, trends show that residents are aging. Service demands and housing preferences will continue to shift as baby boomers continue to age.

# Figure 2-10: Median Income

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## EMPLOYMENT

Information on how a community's employment base is growing and changing informs decisions related to land use, education, and housing.

The occupations and industries sections that follow report on resident workers, defined as individuals who live in Santa Fe Springs and either work within the City or who commute to a workplace outside of the City. The businesses section reports on the number of businesses and employees in Santa Fe Springs, which includes many people who live outside of the City and commute into Santa Fe Springs for work.

The data in the following sections reflect economic standing prior to COVID-19, with the exception of unemployment rates.

In 2018, the unemployment rate was lower in Santa Fe Springs (4%) compared to California (7%) and Los Angeles County (7%). Since Spring 2020, COVID-19 has and will continue to significantly affect global employment trends and economies. The State Employment Development Department estimates that as of April 2020, there were 7,100 Santa Fe Springs residents in the labor force, with 13% unemployment, compared to a countywide unemployment rate of 20%, see Figure 2-11.

### Occupations

Information on the types of jobs, or occupations, held by community residents provides insight into potential earning power. This in turn often dictates into which segment of the housing market a household falls and how much money a household can devote to goods and services, medical expenses, transportation, as well as any remaining disposable income.

Proportionally, the highest percentage of Santa Fe Springs residents hold Sales and Office occupations (31%), of which 64% hold Office and Administrative Support occupations, see Table 2-2.

Two sub-categories report median earnings higher than the Santa Fe Springs median household income of \$65,518: Computer, Engineering, and Science occupations and Protective Service occupations.

**30%**

of residents work in management, business, science, and arts

**31%**

of residents work in sales and office

**14%**

of residents work in service

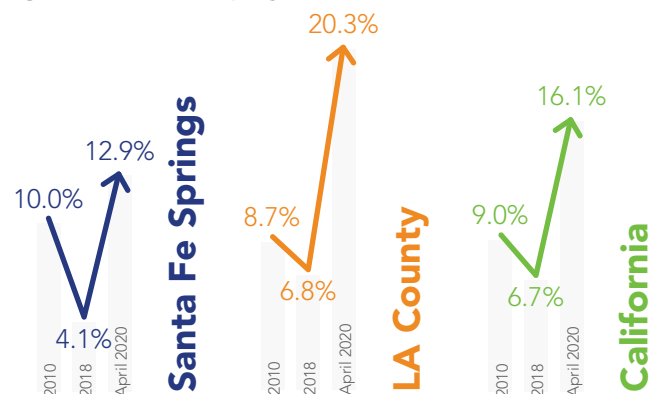
**18%**

of residents work in production, and transportation

**7%**

of residents work in natural resources and construction

Figure 2-11: Unemployment Rates



Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles



Table 2-2: Occupations (Resident Workers) by Median Earnings

Occupations (Resident Workers)	Santa Fe Springs			LA County	
	Number	Percent	Median Earnings	Number	Percent
<b>Civilian employed population 16 years and over</b>	<b>7,963</b>	<b>100.0%</b>	<b>\$35,890</b>	<b>5,001,369</b>	<b>100.0%</b>
<b>Management, business, science, and arts</b>	<b>2,366</b>	<b>29.7%</b>	<b>\$50,000</b>	<b>1,863,993</b>	<b>37.3%</b>
Management, business, and financial	778	32.9%	\$58,167	745,043	40.0%
Computer, engineering, and science	338	14.3%	\$71,389	244,519	13.1%
Education, legal, community service, arts, and media	962	40.7%	\$33,750	629,458	33.8%
Healthcare practitioners and technical	288	12.2%	\$40,926	244,973	13.1%
<b>Service</b>	<b>1,108</b>	<b>13.9%</b>	<b>\$22,674</b>	<b>969,741</b>	<b>19.4%</b>
Healthcare support	205	18.5%	\$23,438	187,833	19.4%
Protective service	145	13.1%	\$80,450	94,780	9.8%
Food preparation and serving related	336	30.3%	\$17,269	302,294	31.2%
Building and grounds cleaning and maintenance	200	18.1%	\$30,682	224,404	23.1%
Personal care and service	222	20.0%	\$14,917	160,430	16.5%
<b>Sales and office</b>	<b>2,494</b>	<b>31.3%</b>	<b>\$36,937</b>	<b>1,086,222</b>	<b>21.7%</b>
Sales and related	908	36.4%	\$38,716	503,694	46.4%
Office and administrative support	1,586	63.6%	\$36,611	582,528	53.6%
<b>Natural resources, construction, and maintenance</b>	<b>585</b>	<b>7.3%</b>	<b>\$40,221</b>	<b>389,735</b>	<b>7.8%</b>
Farming, fishing, and forestry	16	2.7%	-	12,598	3.2%
Construction and extraction	365	62.4%	\$40,375	257,501	66.1%
Installation, maintenance, and repair	204	34.9%	\$40,671	119,636	30.7%
<b>Production, transportation, and material moving</b>	<b>1,410</b>	<b>17.7%</b>	<b>\$32,011</b>	<b>691,678</b>	<b>13.8%</b>
Production	672	47.7%	\$30,417	284,128	41.1%
Transportation	371	26.3%	\$33,250	210,647	30.5%
Material moving	367	26.0%	\$35,742	196,903	28.5%

Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.

Employment composition in Santa Fe Springs is similar to that of Los Angeles County. The main differences are that Santa Fe Springs has a higher proportion of residents employed in the Sales and Office and Production, Transportation, and Material Moving occupations. These two groups represent almost 50% of occupations held by Santa Fe residents (49%), which is important to note because these are lower-paying jobs. Median earnings for resident workers in Sales and Office-related occupations in 2018 was \$36,937 and \$32,011 for resident workers in Production, Transportation, and Material Moving-related occupations.

## Industries

Industry trends provide a broader, more regional understanding of current and future needs. Comparing jobs held by Santa Fe Springs resident workers by industry of employment to the fastest growing industries in Los Angeles County provides baseline information as to where Santa Fe Springs stands within the region. This can be used to inform economic development, land use, education, and funding-related decisions.

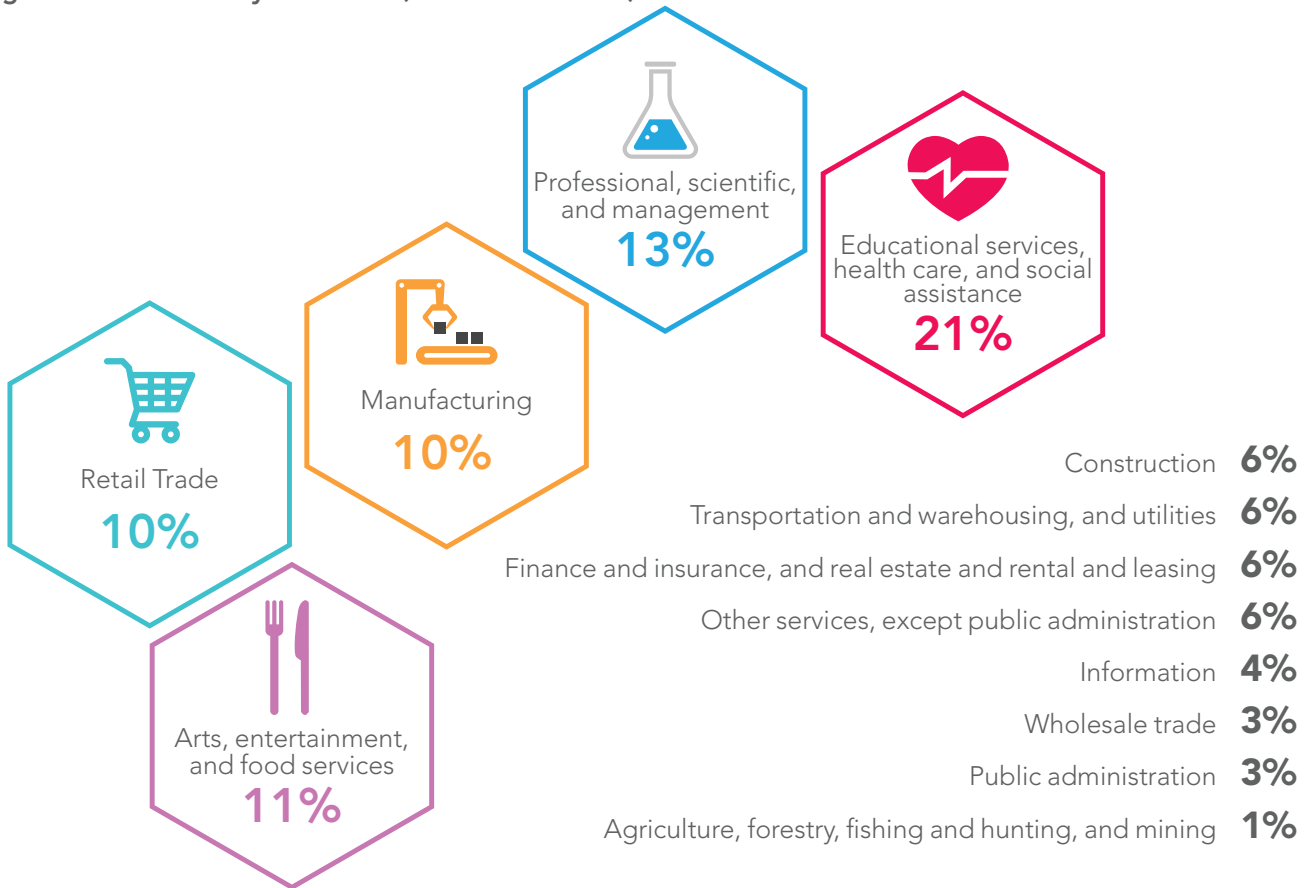
The most dominant employment sectors in Santa Fe Springs are Educational Services, Health Care and Social Assistance (23%), and Manufacturing (13%), see Table 2-3.





Looking southeast on Slauson Avenue with industrial uses on the foreground and the Puente Hills on the background.

Figure 2-13: LA County Industries (Resident Workers)





Industrial-related industry sectors such as Manufacturing; Transportation and Warehousing, and Utilities; and Agriculture, Forestry, Fishing and Hunting, and Mining have significantly decreased since 2010, see Table 2-3. More professional-related industries, with higher paying jobs, such as Professional, Scientific, and Management, and Administrative and Waste Management Services and Finance and Insurance, and Real Estate and Rental and Leasing have increased by 26% and 23% (respectively) since 2010.

Table 2-4 identifies the fastest growing industries in Los Angeles County between 2020 and 2030. Transportation and Warehousing is anticipated to grow 14%, which makes up many industries located in the City.

**Table 2-3: Industries (Resident Workers) Over Time**

Industries (Resident Workers)	Santa Fe Springs				
	2010		2020		Percent Change 2010-2020
	Number	Percent	Number	Percent	
<b>Civilian employed population 16 years and over</b>	<b>6,526</b>	<b>100.0%</b>	<b>7,963</b>	<b>100.0%</b>	<b>22.0%</b>
Agriculture, forestry, fishing and hunting, and mining	18	0.3%	16	0.2%	-33.3%
Construction	345	5.3%	436	5.5%	3.8%
Manufacturing	1,305	20.0%	1,042	13.1%	-34.5%
Wholesale trade	442	6.8%	618	7.8%	14.7%
Retail trade	497	7.6%	754	9.5%	25.0%
Transportation and warehousing, and utilities	596	9.1%	504	6.3%	-30.8%
Information	137	2.1%	144	1.8%	-14.3%
Finance and insurance, and real estate and rental and leasing	306	4.7%	460	5.8%	23.4%
Professional, scientific, and management, and administrative and waste management services	453	6.9%	695	8.7%	26.1%
Educational services, and health care and social assistance	1,292	19.8%	1,851	23.2%	17.2%
Arts, entertainment, and recreation, and accommodation and food services	462	7.1%	627	7.9%	11.3%
Other services, except public administration	247	3.8%	381	4.8%	26.3%
Public administration	426	6.5%	435	5.5%	-15.4%

Source(s): Emsi Q2 2020 Data Set - California Labor Market Information Department.



**Table 2-4: Fastest Growing Industries in LA County, 2020 to 2030**

Industry	2020 Jobs	2030 Jobs	Change in Jobs (2020-2030)	% Change	2019 Earnings Per Worker
Health Care and Social Assistance	806,205	992,645	186,440	23%	\$56,233
Transportation and Warehousing	235,039	266,931	31,892	14%	\$76,231
Accommodation and Food Services	472,832	535,735	62,903	13%	\$31,388
Educational Services	179,779	202,978	23,199	13%	\$55,046
Arts, Entertainment, and Recreation	138,135	150,496	12,361	9%	\$99,069
Construction	222,782	242,277	19,495	9%	\$69,200
Professional, Scientific, and Technical Services	375,977	401,466	25,489	7%	\$114,015
Real Estate and Rental and Leasing	118,320	125,366	7,046	6%	\$79,272
Administrative and Support and Waste Management and Remediation Services	326,607	332,465	5,858	2%	\$50,878
Government	621,756	629,898	8,142	1%	\$108,030

Source(s): Emsi Q2 2020 Data Set - California Labor Market Information Department.

## Businesses

Employment growth typically leads to strong housing demand and an increase in spending, while the reverse is true when employment contracts. Santa Fe Springs is a strong employment market, with approximately 50,000 jobs. The SCAG 2016-2040 growth forecast estimates that between 2010 and 2040, the City's labor force will increase by 14%, an increase of 7,400 additional jobs. Los Angeles County is expected to see a 23% increase in the labor force during that same period (forecasts made prior to 2020 economic recession).

Based on the 2020 Esri Community Analyst Business Summary, Santa Fe Springs had a reported 3,741 businesses and 49,871 employees, see Figure 2-12 and Table 2-5. As a type of business, manufacturing-related businesses constitute the largest percentage of all businesses in Santa Fe Springs (16%) and also the largest number of employees (nearly 28% of all employees in Santa Fe Springs). Land use and economic development-related decisions could be made to ensure that Santa Fe Springs can support and encourage shifts seen here in industry sectors held by Santa Fe Springs resident workers.

Top 10 businesses in Santa Fe Springs, by number of employees, in 2018, included:

1. McMaster Carr Supply Company, **692**
2. LA Specialty Produce Company, **549**
3. Fashion Nova, Inc., **431**
4. Trojan Battery Company LLC, **402**
5. Southern Wine and Spirits, **396**
6. 7-Eleven Distribution Company, **387**
7. Harbor Distributing, LLC, **342**
8. PACTIV LLC, **327**
9. Shaw Diversified Services, Inc., **308**
10. FedEx Ground Package System Inc., **299**

Source: City of Santa Fe Springs Finance and Administrative Services Department.



# Figure 2-12: Employment Density

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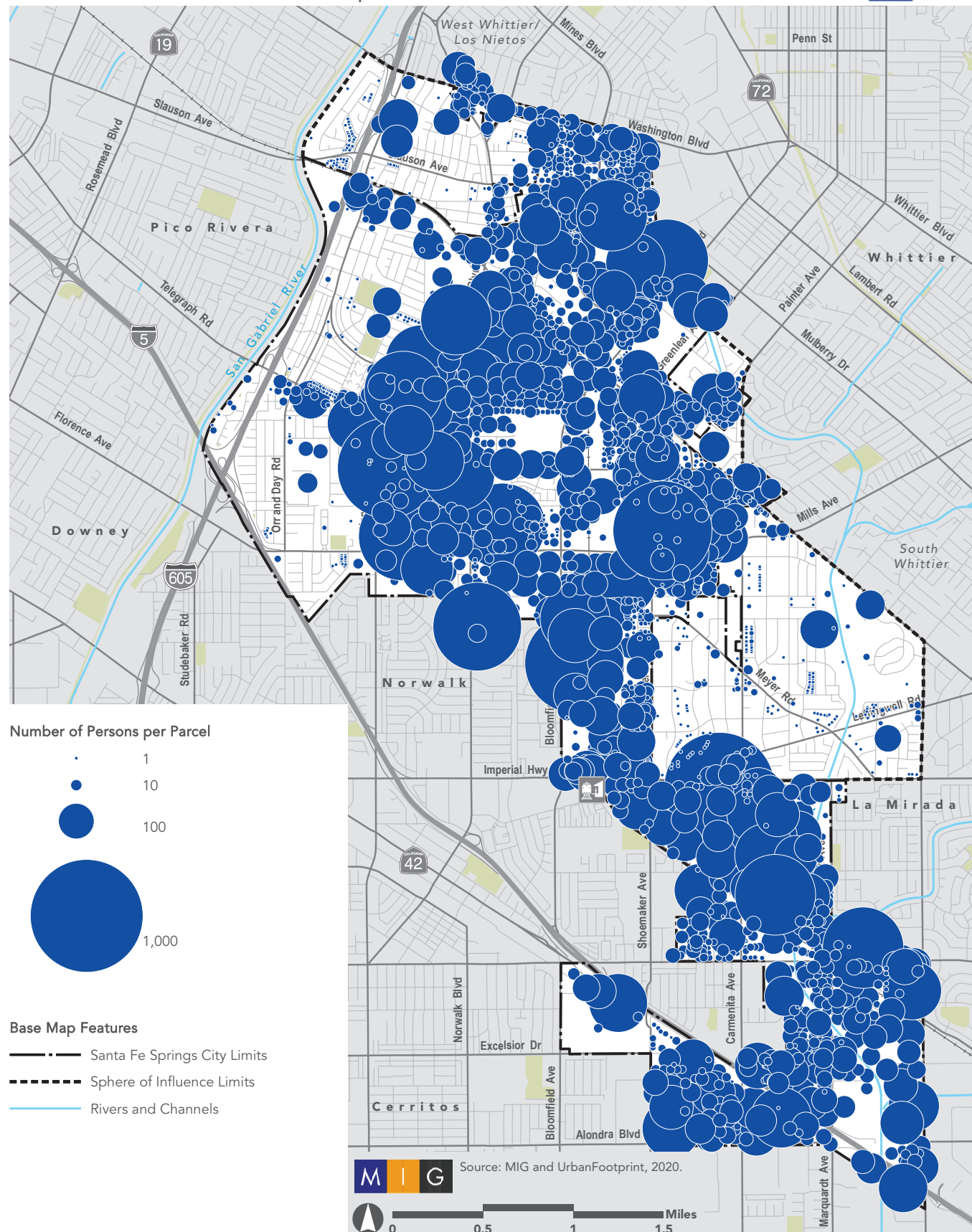






Table 2-5: Businesses in Santa Fe Springs

Businesses in Santa Fe Springs	Businesses		Employees	
	Number	Percent	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	12	0.3%	315	0.6%
Construction	254	6.8%	3,499	7.0%
Manufacturing	608	16.3%	13,832	27.7%
Wholesale trade	513	13.7%	7,862	15.8%
Retail trade	445	11.9%	6,547	13.1%
Transportation and warehousing, and utilities	126	3.4%	2,167	4.3%
Information	53	1.4%	393	0.8%
Finance and insurance, and real estate and rental and leasing	231	6.2%	1,656	3.3%
Professional, scientific, and management, and administrative and waste management services	418	11.2%	5,110	10.2%
Educational services, and health care and social assistance	142	3.8%	3,239	6.5%
Arts, entertainment, and recreation, and accommodation and food services	165	4.4%	1,680	3.4%
Other services, except public administration	267	7.1%	2,164	4.3%
Public administration	19	0.5%	1,110	2.2%
Unclassified Establishments	488	13.0%	297	0.6%
<b>Total</b>	<b>3,741</b>	<b>100.0%</b>	<b>49,871</b>	<b>100.0%</b>

Source(s): Esri Community Analyst, June 2020, Business Summary for Santa Fe Spring.



## Key Considerations

- Prior to 2020 economic recession related to COVID-19, the unemployment rate was lower in Santa Fe Springs (4%) compared to California (7%) and Los Angeles County (7%).
- As a result of COVID-19 global pandemic starting in the Spring of 2020, unemployment has skyrocketed: from 7% to 16% in California, 7% to 20% in LA County, and 4% to 13% in Santa Fe Springs. Economists predict that recovery will be gradual.
- Approximately 50% of resident workers in Santa Fe Springs hold occupations with lower median earnings than other occupations: Sales and Office-related occupations (31%) and Production, Transportation, and Material Moving-related occupations (18%).
- Thirty-six percent of resident workers in Santa Fe Springs are employed in the Educational Services, Health Care and Social Assistance (23%), and Manufacturing (13%) industry sectors.
- Resident workers in Santa Fe Springs hold more jobs in industry sectors with higher-paying median earnings than they did in 2010. Resident works in the manufacturing industry has decreased by 35% between 2010 and 2020. Retail trade, on the other hand, has increased by 25% during that same period.
- Santa Fe Springs had a reported 3,741 total businesses and 49,871 employees in 2020.
- Manufacturing-related businesses dominate the market in Santa Fe Springs with respect to number of businesses (16%) as well as proportion of total employees (27%).



## HOUSEHOLD AND HOUSING STOCK CHARACTERISTICS

This section explores housing conditions to identify issues and opportunities for future housing policy. Household type, size, tenure, age, and the presence of special needs populations all affect the type of housing needed by residents.

### Household Type

A household is defined as all persons living in a housing unit. Families are a subset of households, as are single persons living alone and "other" non-family households. Group quarters, such as convalescent homes, are not considered households.

The Department of Finance in its 2020 population and housing reporting estimated 5,514 total households in Santa Fe Springs, with an average household size of 3.4 persons and an average family size of 4.0 persons. Larger household size can translate into a greater number of overcrowded households, particularly among renters due to the generally smaller size of rental units. The City had a 3% vacancy rate, which is low and reflects a robust housing market.



### HOUSING UNITS IN SANTA FE SPRINGS

**5,383** Total

**5,340** Occupied

### AVERAGE HOUSEHOLD SIZE

Santa Fe Springs **3.4**

LA County **3.0**

California **3.0**



### OWNER OCCUPIED

**65%** Santa Fe Springs

**46%** LA County

**55%** California

### RENTER OCCUPIED

Santa Fe Springs **35%**

LA County **54%**

California **45%**



Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.



## Special Needs Populations

California law recognizes that certain households face greater difficulties in finding decent and affordable housing due to special circumstances, including but not limited to income, age, disability, household size, and household type. Special needs populations addressed in this section include the elderly, persons with disabilities, families with female heads of households, large households, and people experiencing homelessness.

### Seniors

At 26%, senior households represent a significant special needs group in Santa Fe Springs. Consistent with national trends, this population is expected to increase as the baby boom generation enters retirement. This population may require more supportive housing options in close proximity to essential services necessary to maintain a high quality of life while aging in place.

Addressing the diverse housing needs of the senior population in Santa Fe Springs will require strategies that support independent living (such as home accessibility improvements, second units, rehabilitation assistance), as well as strategies that encourage the provision of a variety of supportive living environments for seniors of all income levels.

### Disabled

A disability is defined as a long-lasting condition (more than six months) that impairs an individual's mobility, ability to work, or ability to care for oneself. Persons with disabilities include those with physical, mental, or emotional disabilities. Disabled persons have special housing needs because of their often-limited incomes, shortage of accessible housing, and higher health costs associated with their disability.

Approximately 10% of Santa Fe Springs residents (1,852 persons) reported having one or more disabilities according to the U.S. Census, see Table 2-6. Among

**Table 2-6: Special Need Groups**

Special Needs Groups	Persons	Households	Percent
Seniors (over 65 years of age)	2,489	-	14.0%
With a Disability	935	-	5.3%
Senior Households	-	1,364	26.2%
Renter	-	452	8.7%
Owner	-	912	17.5%
Seniors Living Alone	-	546	10.5%
Persons with Disability	1,852	-	10.4%
Large Household	-	1,005	20.3%
Renter	-	231	4.4%
Owner	-	774	14.9%
Female-Headed Family Household	-	1,050	20.1%
With related Children	-	806	15.5%
Homeless	147	-	0.8%
<b>Total</b>	<b>17,734</b>	<b>5,213</b>	<b>100.0%</b>

Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.



Built in 2003, Little Lake Village Apartments with 144 units provides senior housing for residents age 62 years and older.



the City's senior population, 5% suffer from a disability. As Santa Fe Springs' population continues to age, the number of residents with disabilities will also increase.

Living arrangements for persons with disabilities depend on the severity of the disability. Many persons can live in an independent environment with the help of family members. To maintain independent living, persons with disabilities may require assistance. This can include special housing design features for the physically disabled, income support for those who are unable to work, and in-home supportive services for persons with medical conditions.

### Large Households

Large households are defined as consisting of five or more members and are considered a special needs population due to the limited availability of affordable and adequately sized housing. Large households in lower income groups tend to live in smaller units resulting in overcrowding. The increased strain overcrowding places on a housing unit can accelerate the pace at which it deteriorates.

In Santa Fe Springs, large households constitute 20% of total households. Of the City's 1,005 large households, 231 (4%) are renter households and 774 (15%) are homeowner households. The U.S. Census reports 62% of total housing units in Santa Fe Springs have three or more bedrooms, which is the appropriate size for households with five to six members.

### Single-parent Households

Single-parent households typically have a special need for services such as childcare and health care, among others. Female-headed households with children, in particular, tend to have lower incomes, which limits their housing options and access to supportive services. Santa Fe Springs has 1,050 female-headed family households, comprising 20% of total households. Of these female-headed households, 16% have children under the age of 18. Many of these households need assistance with housing subsidies and affordable day care.



# 14%

City residents are 65 and older



# 10%

City residents have a disability



# 20%

City residents live in a large household (+5 members)



# 16%

City residents are in a female-headed family household with children (under age 18)



## Santa Fe Springs



**161**

2020 Total Homeless Population

**80%** unsheltered

**20%** sheltered

## Los Angeles County



**54,291**

2020 Total Homeless Population

**86%** unsheltered

**14%** sheltered

### Homeless

The 2020 Greater Los Angeles Homeless Count, conducted by the Los Angeles Homeless Service Authority, includes a count of people experiencing homelessness on the street and in shelters. The count identified 161 homeless person with 32 sheltered and 129 unsheltered in the City, excluding the Sphere of Influence. The majority of unsheltered homeless person were either in a recreational vehicle, in cars, or on the streets, see Table 2-7. Many homeless also use the San Gabriel River and I-605 freeway areas for encampments. Homeless persons living in vehicles tend to park in industrial areas where there are fewer residents to call in complaints. Most of the unsheltered homeless persons, 58 persons, were identified in the industrial areas south of Imperial Highway in 2019, but only 5 persons were counted in 2020.

There was an increase in the point-in-time homeless population in Santa Fe Springs since 2019 with 14 additional persons, see Table 2-8.

In Los Angeles County, the total homeless population increased nearly 9% between 2019 and 2020 by approximately 4,800 people.

Table 2-7: Homeless Population

Jurisdiction	Santa Fe Springs		Los Angeles County
	2019	2020	
<b>Total</b>	<b>147</b>	<b>161</b>	<b>54,291</b>
Sheltered	37	32	7,700
Unsheltered	110	129	46,591
On the Streets	20%	14%	28%
In Tents	1%	0%	14%
Makeshift Shelter	35%	1%	14%
In Cars	16%	28%	10%
In Vans	4%	11%	12%
In RVs/Campers	24%	46%	22%

Source(s): Los Angeles Homeless Services Authority, Homeless by Community/City, 2020.

Table 2-8: Homeless Count Comparison

Jurisdiction	2019	2020	Percent Change
Cerritos	53	46	-15.2%
Downey	174	258	32.6%
La Mirada	30	40	25.0%
Norwalk	200	168	-19.0%
Pico Rivera	205	170	-20.6%
<b>Santa Fe Springs</b>	<b>147</b>	<b>161</b>	<b>8.7%</b>
Whittier	719	230	-212.6%
LA County	49,521	54,291	8.8%

Source(s): Los Angeles Homeless Services Authority, Homeless by Community/City, 2019, and 2020.



## Housing Growth Trends

Santa Fe Springs was developed as a predominantly industrial community, with limited areas of residential use. Of the City's nine square miles, 11% of the City's consists of residential uses, with more than 72% allocated to industrial uses. The majority of housing development historically has been concentrated in the western portion of the City away from the industrial uses, although small pockets of housing also exist along the eastern and northern periphery of the City adjoining residential uses in the neighboring communities.

The Regional Housing Growth Trends table (Table 2-9) displays housing production in Santa Fe Springs and the

surrounding region over the past three decades. Housing growth has been fairly limited, in Santa Fe Springs and surrounding cities, reflective of the older, established character of these communities. Approximately 500 new units were added to the housing stock in Santa Fe Springs between 2010 and 2020, and 150 units were added between 1990 and 2010. Although Santa Fe Springs is largely built out, growth over the last decade (11% change between 2010 and 2020) is significantly higher than surrounding cities and reflects the construction of high-density residential units.

**Table 2-9: Regional Housing Growth Trends**

Regions	Total Households (Occupied Housing Units)				Percent Change		
	1990	2000	2010	2020	1990 - 2000	2000 - 2010	2010 - 2020
Cerritos	15,365	15,607	15,860	16,204	1.6%	1.6%	2.2%
Downey	34,302	34,759	35,601	35,838	1.3%	2.4%	0.7%
La Mirada	13,354	14,811	15,092	15,175	10.9%	1.9%	0.5%
Norwalk	27,247	27,555	28,083	28,135	1.1%	1.9%	0.2%
Pico Rivera	16,316	16,807	17,109	17,173	3.0%	1.8%	0.4%
<b>Santa Fe Springs</b>	<b>4,817</b>	<b>4,932</b>	<b>4,976</b>	<b>5,514</b>	<b>2.4%</b>	<b>0.9%</b>	<b>10.8%</b>
Whittier	28,758	28,958	29,591	29,721	0.7%	2.2%	0.4%
LA County	3,163,310	3,270,906	3,443,087	3,590,574	3.4%	5.3%	4.3%
California	11,182,513	12,214,550	13,670,304	14,329,863	9.2%	11.9%	4.8%

Source(s): Department of Finance 2020 E-5 Population and Housing Estimates, Dept of Finance 2000 E-8 Historical Population and Housing Estimates.





## Housing Type and Tenure

Santa Fe Springs has a mix of housing types. Single-family homes remain the dominant housing type, comprising 63% of the City's 2020 housing stock, of which 59% are single-family detached, see Table 2-10 and Figure 2-14. Over 300 multi-family units were added between 2010 and 2020, accounting for the largest percent change in housing unit type over the last decade. The vacancy rate in Santa Fe Springs decreased from 5% to 3% between 2010 and 2020.

Tenure influences residential mobility, with lower turnover rates for owner-occupied units than rental housing. Sixty-five percent of Santa Fe Springs households were homeowners in 2020, an increase from the 61% homeownership in 2010, though still well above the countywide rate of 46%, see Table 2-11.

Table 2-11: Regional Housing Tenure

Jurisdiction	Total Occupied Housing Units	Housing Tenure	
		Owner-occupied	Renter-occupied
Cerritos	15,406	78%	22%
Downey	33,187	51%	49%
La Mirada	14,331	79%	22%
Norwalk	27,180	64%	36%
Pico Rivera	16,681	67%	33%
<b>Santa Fe Springs</b>	<b>5,213</b>	<b>65%</b>	<b>35%</b>
Whittier	27,605	57%	43%
LA County	3,306,109	46%	54%
California	12,965,435	55%	45%

Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.

Table 2-10: Housing Unit Type Over Time

Housing Unit Type	2010		2020	
	Number	Percent	Number	Percent
<b>Single family</b>	<b>3,243</b>	<b>65.2%</b>	<b>3,450</b>	<b>62.6%</b>
Single family detached	3,119	62.7%	3,251	59.0%
Single family attached	124	2.5%	199	3.6%
<b>Multi family</b>	<b>1,660</b>	<b>33.4%</b>	<b>1,991</b>	<b>36.1%</b>
Multi family (2 to 4 units)	243	4.9%	300	5.4%
Multi family (5 or more)	1,417	28.5%	1,691	30.7%
Mobile home units	73	1.5%	73	1.5%
<b>Total</b>	<b>4,976</b>	<b>100.0%</b>	<b>5,514</b>	<b>100.0%</b>
Vacancy Rate	-	4.6%	-	3.2%
Occupied	4,747	-	5,340	-

Source(s): Department of Finance 2020 E-5 Population and Housing Estimates.



### OWNER OCCUPIED

**65%** Santa Fe Springs  
**46%** LA County  
**55%** California

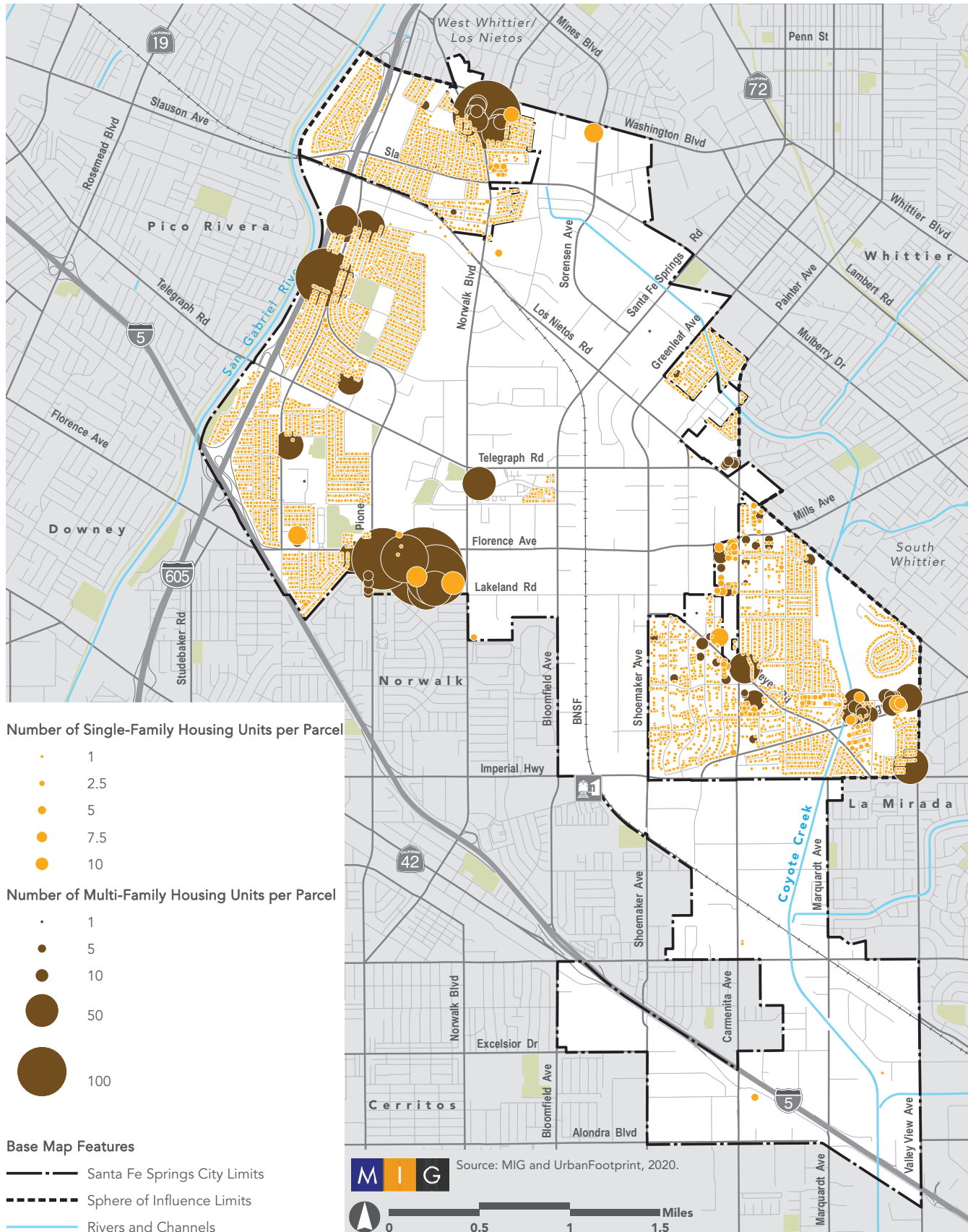


### RENTER OCCUPIED

**35%** Santa Fe Springs  
**54%** LA County  
**45%** California

Figure 2-14: Number of Housing Unit Types

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## Housing Age

Housing age has a direct correlation to the quality and condition of housing units. Older structures can pose a safety hazard and negatively impact property values within a neighborhood. Typically, buildings over 30 years old are likely to have rehabilitation needs that may include new plumbing, roof repairs, foundation work, etc. Housing units 50 years old or older typically require rehabilitation to maintain compliance with safety codes.

Forty-six percent of residential housing units in Santa Fe Springs were constructed between 1950 and 1959. see Table 2-12. Eighty-three percent of residential housing units were built over 30 years ago and thus are considered aging housing stock. Sixty-six percent of the housing stock in Santa Fe Springs is over 50 years old and could likely require substantial repairs.

**Table 2-12: Age of Housing Stock**

Decade Built	Housing Age	
	Number	Percent
Built 2010 or later	391	7.3%
2000s	188	3.5%
1990s	330	6.1%
1980s	416	7.7%
1970s	482	9.0%
1960s	576	10.7%
1950s	2,492	46.3%
Built before 1950	508	9.4%
Total	5,383	100.0%

Source(s): US Census 2018 ACS 5-Year Estimates Data Profiles.



## Key Considerations

- Over 500 housing units have been added to Santa Fe Springs housing stock since 2010.
- Santa Fe Springs is mostly built out with limited vacant land available for new housing development. New housing development will need to focus on underutilized sites.
- Sixty-three percent of the 2020 housing stock in Santa Fe Springs are single-family homes.
- Santa Fe Springs has a higher percentage of owner-occupied units (65%) than LA County (46%) and California (55%).
- Eighty-three percent of residential housing units were built over 30 years ago and are thus considered aging housing stock.



## CHAPTER 3: LAND USE AND COMMUNITY

### EXISTING CONDITIONS TECHNICAL REPORT



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Santa Fe Springs

2040 GENERAL PLAN





## **CHAPTER 3: LAND USE AND COMMUNITY**

### EXISTING CONDITIONS TECHNICAL REPORT

INTRODUCTION

LAND USE

COMMUNITY AND EDUCATIONAL FACILITIES

CULTURAL RESOURCES



## INTRODUCTION

This chapter provides an overview of baseline (2020) land uses, community and recreation facilities, educational institutions, and cultural resources in Santa Fe Springs. This inventory allows for comparison of future growth projections against the baseline.

## LAND USE

Existing land use and land use regulatory plans provide a foundation for understanding how past planning efforts have shaped Santa Fe Springs. These plans include County plans pre-dating incorporation, the City's first General Plan from the 1970s, the 1994 General Plan (1993 Land Use Element), Zoning Ordinance, and the development of the Waste Disposal, Inc. Specific Plan.

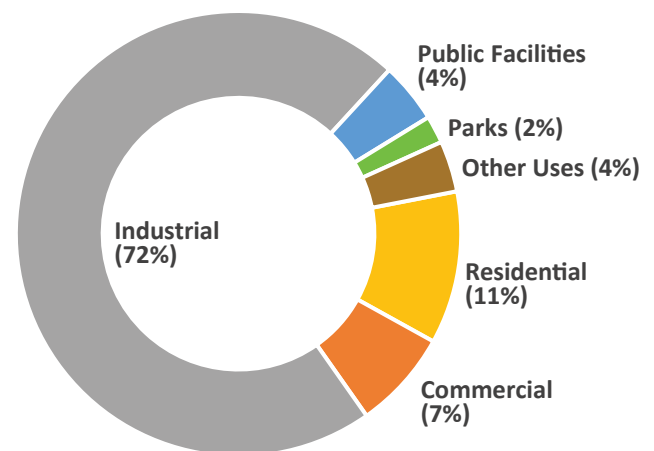
### Existing Land Use Pattern (2020)

As of 2020, the City of Santa Fe Springs had 5,675 parcels encompassing 4,741 acres. The Sphere of Influence contained about 5,145 parcels encompassing an additional 1,285 acres (6,026-acre Planning Area). Existing land uses, as of 2020, included 30 different land use categories (see Figure 3-1) ranging from residential, commercial, industrial, and public facilities. These land use categories are described below and enumerated in Table 3-1: Existing Land Use Acreages (2020).

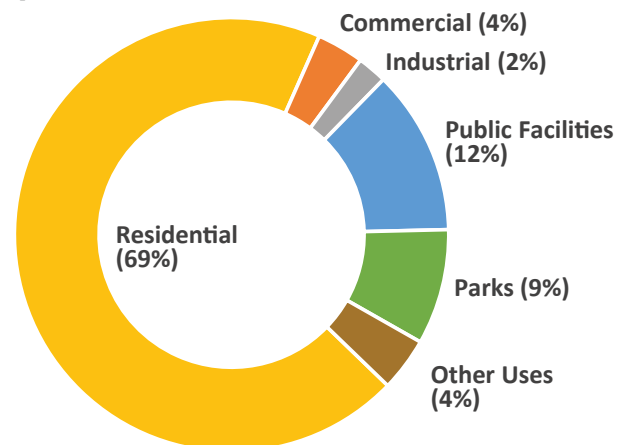
The proportions of industrial and residential land uses differ greatly between the City and Sphere of Influence, see Figure 3-1. Most existing development within the Planning Area consists of industrial uses (3,425 acres, or 57%). Residential land uses account for 1,417 acres (24%), and park and open space uses account for 205 acres (3%); see Table 3-1. Within the incorporated City limits, industrial uses account for 72% of land area; in the Sphere, only 2% of the land is devoted to industrial use. Residential uses predominate in the Sphere, at 70%. Figure 3-2 identifies the various land uses throughout the City and Sphere of Influence.

**Figure 3-1: Existing Land Use Percentages (2020)**

### Santa Fe Springs (Corporate City Limits)



### Sphere of Influence



Source: MIG, LA County Assessor, and UrbanFootprint, 2020

Figure 3-2: Existing Land Use Map (2020)



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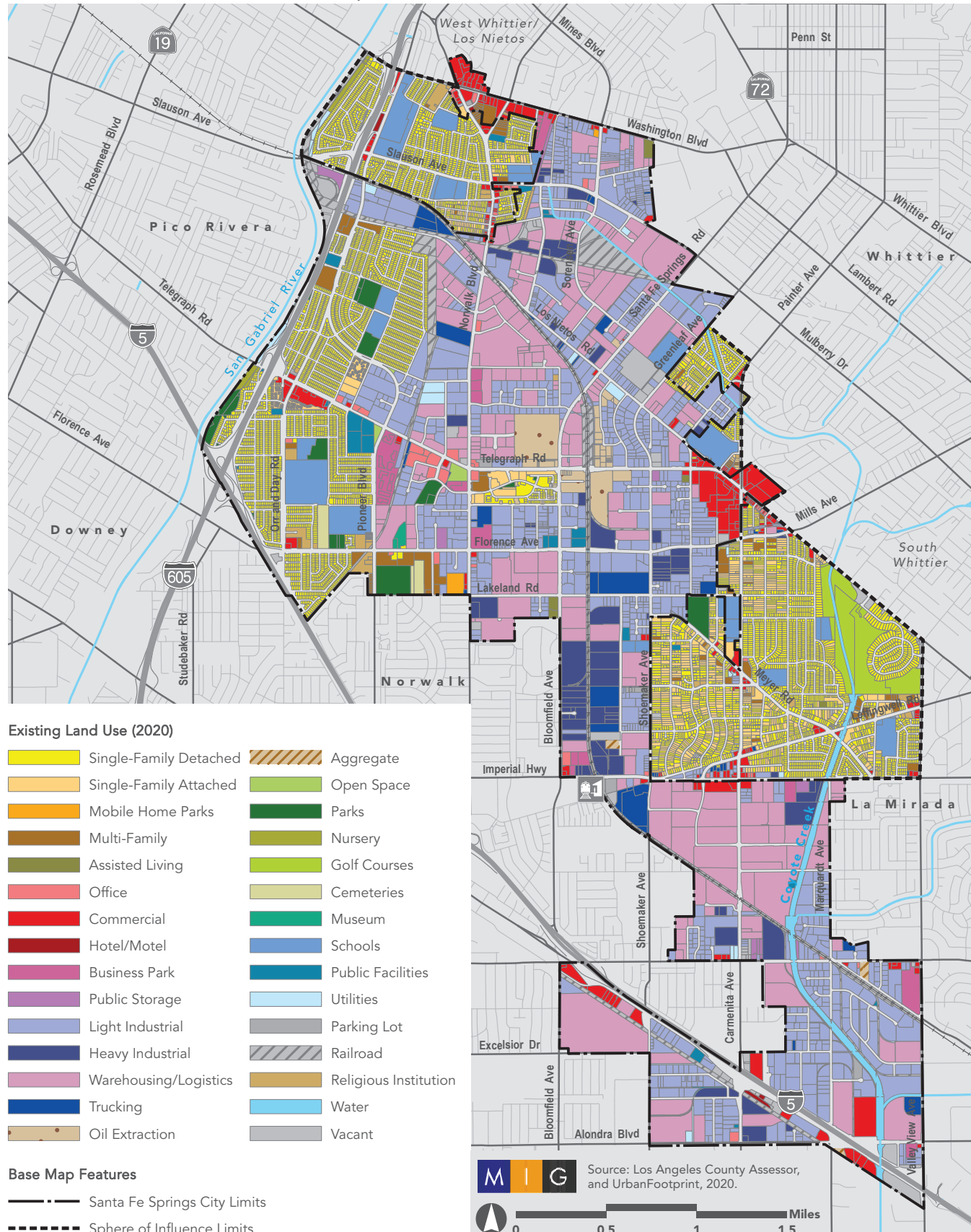






Table 3-1: Existing Land Use Acreages (2020)

Land Use Types	Planning Area (Net Acres)					
	City		Sphere of Influence		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
<b>Residential Uses</b>	<b>523.7</b>	<b>11.0%</b>	<b>892.9</b>	<b>69.5%</b>	<b>1,416.6</b>	<b>23.5%</b>
Single-Family Attached	40.6	0.9%	168.9	13.1%	209.5	3.5%
Single-Family Detached	413.2	8.7%	684.1	53.2%	1,097.3	18.2%
Mobile Home Parks	8.2	0.2%	0	0.0%	8.2	0.1%
Multi-Family	53.1	1.1%	38.9	3.0%	92.0	1.5%
Assisted Living	8.6	0.2%	1	0.1%	9.6	0.2%
<b>Commercial Uses</b>	<b>340.7</b>	<b>7.2%</b>	<b>44.5</b>	<b>3.5%</b>	<b>385.2</b>	<b>6.4%</b>
Commercial	196.5	4.1%	40.1	3.1%	236.6	3.9%
Hotel/Motel	2.8	0.1%	1.6	0.1%	4.4	0.1%
Business Park	83.2	1.8%	0	0.0%	83.2	1.4%
Office	35.3	0.7%	2.8	0.2%	38.1	0.6%
Public Storage	22.9	0.5%	0	0.0%	22.9	0.4%
<b>Industrial Uses</b>	<b>3,396.7</b>	<b>71.6%</b>	<b>29</b>	<b>2.3%</b>	<b>3,425.7</b>	<b>56.8%</b>
Light Industrial	1,446.8	30.5%	11.1	0.9%	1,457.9	24.2%
Heavy Industrial	273.4	5.8%	1.5	0.1%	274.9	4.6%
Oil Extraction	98.4	2.1%	0	0.0%	98.4	1.6%
Railroads and Railyards	219.2	4.6%	9.6	0.7%	228.8	3.8%
Aggregate and Cement	6.4	0.1%	0	0.0%	6.4	0.1%
Trucking-Related	114.5	2.4%	4	0.3%	118.5	2.0%
Warehousing/Logistics	1,238.0	26.1%	2.8	0.2%	1,240.8	20.6%
<b>Public Facilities Uses</b>	<b>206.2</b>	<b>4.3%</b>	<b>156.8</b>	<b>12.2%</b>	<b>363.0</b>	<b>6.0%</b>
Public Facilities	41.5	0.9%	3.4	0.3%	44.9	0.7%
Schools	124.1	2.6%	147.6	11.5%	271.7	4.5%
Museum	5.0	0.1%	0	0.0%	5.0	0.1%
Utilities	35.6	0.8%	5.8	0.5%	41.4	0.7%
<b>Parks and Open Space Uses</b>	<b>94.0</b>	<b>2.0%</b>	<b>111.3</b>	<b>8.7%</b>	<b>205.3</b>	<b>3.4%</b>
Parks	69.9	1.5%	14.4	1.1%	84.3	1.4%
Open Space	5.1	0.1%	0	0.0%	5.1	0.1%
Cemeteries	19.0	0.4%	0	0.0%	19.0	0.3%
Golf Courses	0.0	0.0%	96.9	7.5%	96.9	1.6%
<b>Other Uses</b>	<b>179.9</b>	<b>3.8%</b>	<b>50.7</b>	<b>3.9%</b>	<b>230.6</b>	<b>3.8%</b>
Religious Institution	19.9	0.4%	17.2	1.3%	37.1	0.6%
Vacant	90.1	1.9%	13.6	1.1%	103.7	1.7%
Storm Channels and Drainage	58.9	1.2%	19.5	1.5%	78.4	1.3%
Parking Lots	11.0	0.2%	0.4	0.0%	11.4	0.2%
<b>Total</b>	<b>4,741.2</b>	<b>100.0%</b>	<b>1,285.2</b>	<b>100.0%</b>	<b>6,026.4</b>	<b>100.0%</b>

Source: MIG, LA County Assessor, and UrbanFootprint, 2020.



## Residential

Residential uses within Santa Fe Springs are primarily concentrated in the western part of the City. Except for a cluster of residential uses along Telegraph Road, residential uses are generally located along the western and eastern borders of the Planning Area. There are no existing residential uses south of Imperial Highway.

Single-family detached and attached residential uses (one unit per lot) make up the vast majority of the residential land use category (454 acres in the City and 1,307 acres in the Planning Area). The single-family residential average densities (number of residential dwelling units per acres, or du/ac) is approximately 7.5 du/ac. Orr and Day Road provides a good representation of many of Santa Fe Springs' residential communities. Most homes along Orr and Day Road were built in the 1950s on lots averaging approximately 5,000 square feet. Santa Fe Springs High School is also located along Orr and Day Road, directly serving the largest residential neighborhood in the City.

Multi-family residential uses (more than one unit per development/lot) occur along major roads and intersections such as Norwalk Boulevard and Telegraph Road in the western part of the City. Multi-family residential uses in the City cover 53 acres (92 acres in the Planning Area), with average densities at approximately 27.8 du/ac; see Table 3.2 (Residential Density). Mobile home parks and assisted living developments (17 acres) make up a very small proportion of residential land uses.



**10%**  
of the City's total  
acreage consists of  
single-family housing  
units (454 acres)



**1%**  
of the City's total  
acreage consists of  
multi-family housing  
units (53 acres)

**Table 3-2: Residential Density - Planning Area**

Residential Land Use Types	Average Residential Density	Number of Parcels	Average Parcel Size (acres/sq. ft.)
Single-Family Detached	7.5 du/ac	7,335	0.15 ac/6,500 sf
Single-Family Attached	16.6 du/ac	791	0.26 ac/11,300 sf
Multi-Family	27.8 du/ac	97	0.95 ac/41,400 sf
Mobile Home Parks	13.9 du/ac	2	4.1 ac/178,600 sf

Source: MIG, LA County Assessor, and UrbanFootprint, 2020.



## Commercial and Industrial

Commercial uses make up 385 acres or 6% of the Planning Area. These uses are primarily concentrated around the borders of Santa Fe Springs, with clusters along Washington Boulevard and around the intersection of Telegraph Road and Carmenita Road. The most prevalent commercial uses are retail establishments and shopping centers (226 acres), followed by business park (83 acres), office (38 acres), and public storage uses (23 acres).

Industrial uses account for 3,426 acres, or 57 percent of the Planning Area. The vast majority (3,397 acres) of industrial uses are located within City limits. Industrial uses are centrally located in Santa Fe Springs, spanning the entire length of the City. Some commercial and residential uses lie scattered among industrial uses, with a cluster of residential uses located along Telegraph Road.

Industrial land uses include light industrial, heavy industrial, warehousing and logistics, trucking, aggregate and cement, and oil extraction businesses. Light industrial (1,447 acres) and warehousing and logistics (1,238 acres) make up the majority of industrial uses in the City. The City has experienced an increase in warehousing and logistics uses in 2018-2020, reflecting broader economic trends. Certain industrial land uses, such as the logistics and warehousing have large footprints and relatively greater impacts on the community in terms of truck traffic, air pollution and road damage, while generating less revenue compared to light industrial uses.

Floor-area ratio (FAR) is used to describe the development intensity for commercial and industrial uses. FAR is the ratio of a building's total floor area to the size of the lot or parcel on which that building is located. A 0.5 FAR indicates that the floor area of a building is half as large as the lot area. See Table 3-3 for average FAR by non-residential use types.



**4%**  
of the City's total  
acreage consists of  
commercial uses  
(192 acres)



**31%**  
of the City's total  
acreage consists of  
light industrial uses  
(1,447 acres)

**Table 3-3: Non-Residential Intensity (Floor-Area Ratio) - Planning Area**

Residential Land Use Types	Average Floor-Area Ratio (FAR)	Number of Parcels	Average Parcel Size (acres)
Commercial Uses	0.163	243	0.8 ac
Office and Business Park Uses	0.234	79	1.6 ac
Light and Heavy Industrial Uses	0.328	1,346	1.3 ac
Warehousing and Logistics Uses	0.422	249	4.9 ac

Source: MIG, LA County Assessor, and UrbanFootprint, 2020.





### Public Facilities and Institutions Land Uses

Public and quasi-public uses include public schools, government offices, museums, and utilities. The total land area devoted to public facilities and institutional uses is 363 acres, or six percent of the Planning Area. Public and private schools (K-12) occupy 272 acres (5%) of the Planning Area.

### Park and Open Space Land Uses

Parks and open spaces make up 205 acres, or just over three percent of the Planning Area. The largest uses in the parks and open spaces category include parks (70 acres) and golf courses (97 acres). The other uses include open space (20 acres) and cemeteries (19 acres). This Chapter further describes park facilities (page 3-21), including 85.3 acres of parkland managed by the City of Santa Fe Springs, which consists of Park and Public Facilities existing land uses.

### Other Land Uses

Other land uses such as utilities, storm drain facilities, railroad lines, parking lots, and vacant land (devoid of any structures) account for 231 acres, or 4% of the Planning Area.

As noted previously, the Planning Area contains little vacant land (103.7 acres). The largest clusters of vacant land are located near the intersections of Burke Street and Dice Road and Greenleaf Avenue and Los Nietos Road. Vacant lots across the Planning Area vary greatly in size. Some vacant properties are relatively large, having previously been used for light industrial, heavy industrial, and warehousing and logistics uses.

Santa Fe Springs is built out, with few vacant lots. Future development will largely rely on infill development and the reuse or intensification of existing structures.



**1%**  
of the City's total  
acreage consists  
of public facilities  
uses (42 acres)



**3%**  
of the City's total  
acreage consists of  
schools (124 acres)



**2%**  
of the City's total  
acreage consists of  
parks (70 acres)



### Building Footprints and Block Patterns

Figure 3-3 illustrates the pattern of building footprints throughout the Planning Area. These patterns make it easy to distinguish between the residential neighborhoods and the commercial and industrial districts. The residential neighborhoods feature smaller building footprints, with a mix of smaller single-family homes and multi-family residences. The industrial core is characterized by large building footprints. The largest industrial parcels and buildings are concentrated around Norwalk Boulevard and Los Nietos Road, Florence Avenue and Norwalk Boulevard, Santa Fe Springs Road and Slauson Avenue, and Carmenita Road and Imperial Highway. From a mobility standpoint, Santa Fe Springs' urban form is advantageous for automobiles and trucks. Many industrial buildings are set back from the road, with large surface parking lots. These industrial areas create long "superblocks" designed for truck traffic. Train spurs from the Union Pacific and BNSF Railway connect to many industrial business and buildings.



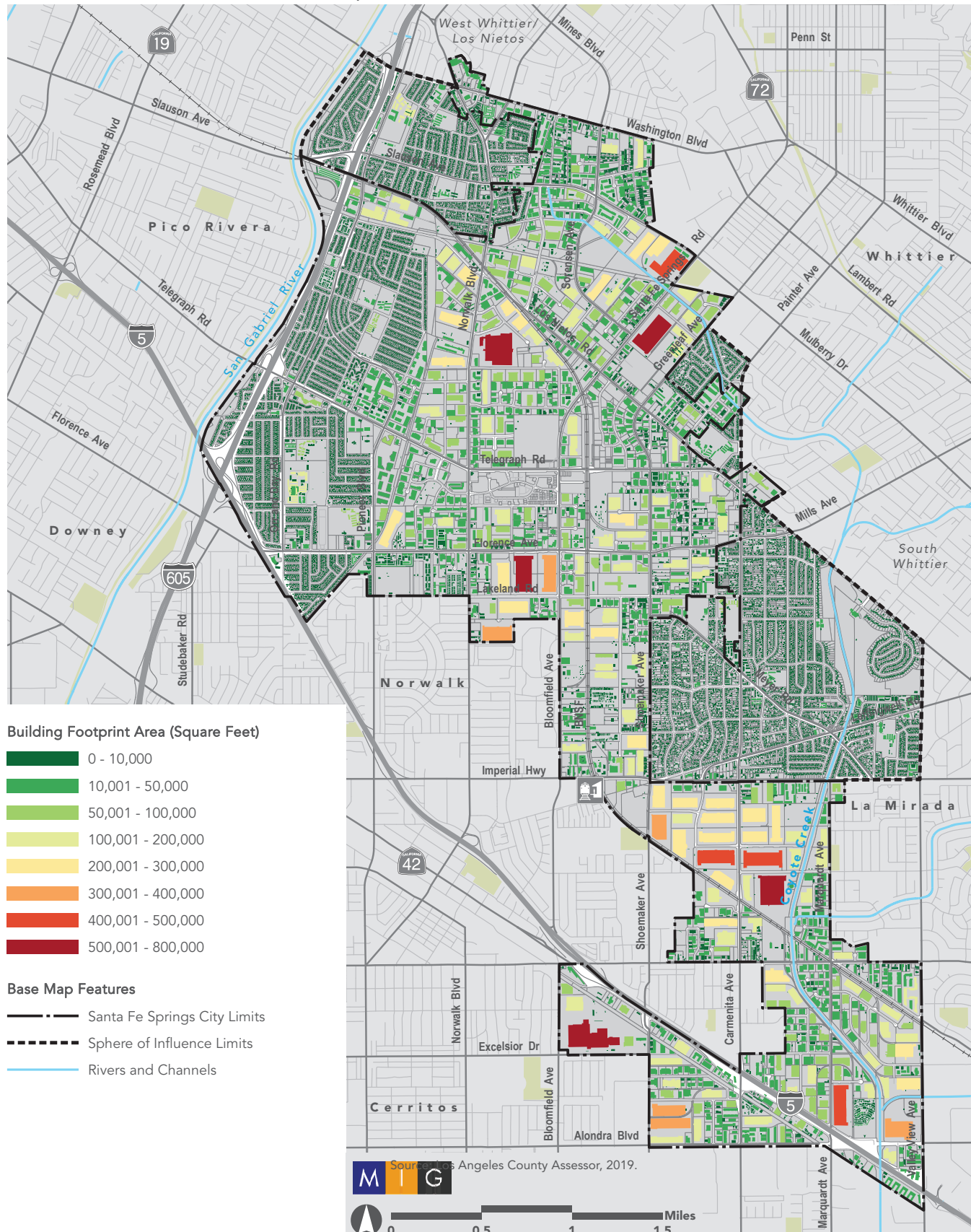
*Building footprint area differ between residential and industrial buildings*



# Figure 3-3: Building Footprints



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## Regulatory Land Use Plans

Santa Fe Springs last updated its General Plan in 1994 (Land Use Element was adopted in 1993). The General Plan is organized into seven elements, which present an integrated and internally consistent set of goals, policies, and implementation measures.

### General Plan

The General Plan consists of the following elements:

- **Land Use Element.** The Land Use Element designates future land use patterns, provides an inventory of land use as it existed in 1993, and identifies standards for population density and building intensity for all land use categories (see Table 3-4).
- **Housing Element.** This element was last updated in 2014 and covers the planning period from 2014 to 2021. It evaluates the community's housing needs, constraints, and opportunities and identifies strategies and programs to preserve and improve housing, provide adequate housing sites, assist in the provision of affordable housing, remove governmental constraints to housing investment, and promote fair and equal housing opportunities.
- **Open Space/Conservation Element.** This element details plans and measures for preserving open space and managing natural resources and outdoor recreation.
- **Safety Element.** The Safety Element establishes standards and plans for the protection of people and property across the community from a variety of natural and human-caused hazards.
- **Circulation Element.** This element identifies the general location and effectiveness of the existing and proposed roadways, highways, railroads, and transit routes. It also describes the public water works system.
- **Noise Element.** This element evaluates noise sources and provides information relating to noise compatible uses to aid in the establishment of local noise regulations.
- **Environmental Element.** The Environmental Element includes the Source Reduction and Recycling Element, the Household Hazardous Waste Element, the Non-Disposal Facilities Element, and the Air Quality Management Plan.

The 1994 General Plan identifies goals, policies, and implementation measures to address the Santa Fe Springs community's greatest needs and concerns:

- City growth is largely dependent on land recycling and infill development. The Land Use Element policies are aimed to manage future development, provide job opportunities, support the viability of industrial and commercial uses, and buffer incompatible uses.
- The City seeks to preserve the low-density, single-family nature of its residential neighborhoods while providing the necessary commercial, industrial, and institutional uses to serve residents.
- The provision of affordable housing is a local and regional concern. The City aims to maintain and enhance its existing housing stock, increase opportunities for home ownership, and ensure that new housing is sensitive to adjacent neighborhoods.
- The City maintains a high open space to population ratio, nearly five acres per 1,000 residents. Policy aims to preserve open space and carefully plan for its development, preserve historically significant buildings and properties, and continue adding to the collection of permanent outdoor sculptures by enforcing the Heritage Artwork in Public Places Program.
- As a predominantly industrial community, the City seeks to continually respond to the environmental, land use, and emergency response concerns of its chemical-based and hazardous material industry.
- To facilitate the safe and efficient movement of people and goods consistent with the City's ability to finance and maintain such a system, the City aims to develop a transportation management system to assist in mitigating traffic impacts and maintaining a desired level of service, as well as a truck circulation system.



**Table 3-4: General Plan Land Use Categories**

General Plan Land Use Categories	Maximum Density/ Intensity	Corresponding Zone	Acres	% of Total Acres
<b>Residential</b>				
Single-Family Residential	8.7 units/acre	R-1	399	9%
Multi-Family Condominium/ Townhomes	21.8 units/acre	R-3	16	0.4%
Multi-Family Apartments	21.8 units/acre	R-3	51	1%
Multi-Family Mobile Homes	21.8 units/acre	R-3	8	0.2%
<b>Commercial</b>				
General Commercial	35% Lot Coverage	C-1 or C-4	35	1%
Commercial Center	35% Lot Coverage	C-4	192	4%
Freeway Commercial	35% Lot Coverage	M-1 or M-2	90	2%
<b>Industrial</b>				
Business Parks	50% Lot Coverage	ML	104	2%
Light Industrial	40% Lot Coverage	M-1	109	2%
Heavy Industrial		M-2	3,287	72%
<b>Public Service Centers</b>				
Civic Center	--	PF	11	0.2%
Public Safety	--	PF	3	0.1%
Churches	--	PF	11	0.2%
Historical and Cultural Sites	--	--	18	0.4%
Parks/Open Space	--	--	126	3%
Schools	--	--	99	2%
<b>Total</b>	--	--	<b>4,558</b>	<b>100%</b>

Source: City of Santa Fe Springs 1994 Land Use Element.



## Zoning Ordinance

Zoning represents the primary means of implementing General Plan policy. The Santa Fe Springs Zoning Ordinance translates the General Plan's long-term goals and policies into regulations and guidelines used to make decisions on development proposals. The Zoning Ordinance identifies specific uses allowed within each zoning district and provides specific development requirements such as density, setbacks, height, size, development character, and appearance (Figure 3-5). The Santa Fe Springs Zoning Ordinance is published in Title XV: Land Use, Chapter 155 of the City Municipal Code.

## Specific Plan

In 2004, the City adopted the Specific Plan for the Development of the Waste Disposal, Inc. Site (Specific Plan) to guide the redevelopment of a federally designated Superfund site known as the Waste Disposal, Inc. Site (WDI Site). The WDI Site is described as containing the properties north of Los Nietos Road, east of Santa Fe Springs Road, west of Greenleaf Avenue, and south of the extension of Barton Street. The total WDI Site covers approximately 38 acres, encompassing 22 separate parcels.

The purpose of the Specific Plan is to expedite the redevelopment process and ensure that remediation actions and development protect human health and meet City building and design standards. Specific Plan objectives include the redevelopment and reuse of the WDI Site, ensuring environmental safety, improving the aesthetics and function of the immediate area, and ensuring that future development and uses enhances the community of Santa Fe Springs.



## Key Considerations

Santa Fe Springs is almost completely built out. Key land use considerations for the future will be:

- Over 71% of the City is devoted strictly to industrial uses, while only 11% is devoted to residential uses.
- Only 7% of the uses are devoted to commercial uses.
- The City is entirely built out with only a few remaining sites that are vacant.
- Identifying opportunity areas for emerging residential and commercial development types that respond to Santa Fe Springs residents' needs .
- Repurposing and/or remediating vacant lots and underutilized sites that may be contaminated due to past uses.
- The City's industrial businesses generates a large day-time population, but the area consists of a relatively low night-time population during outside normal business hours, which creates challenges when trying to attract more entertainment and sit-down restaurants options.



Figure 3-4: General Plan Map

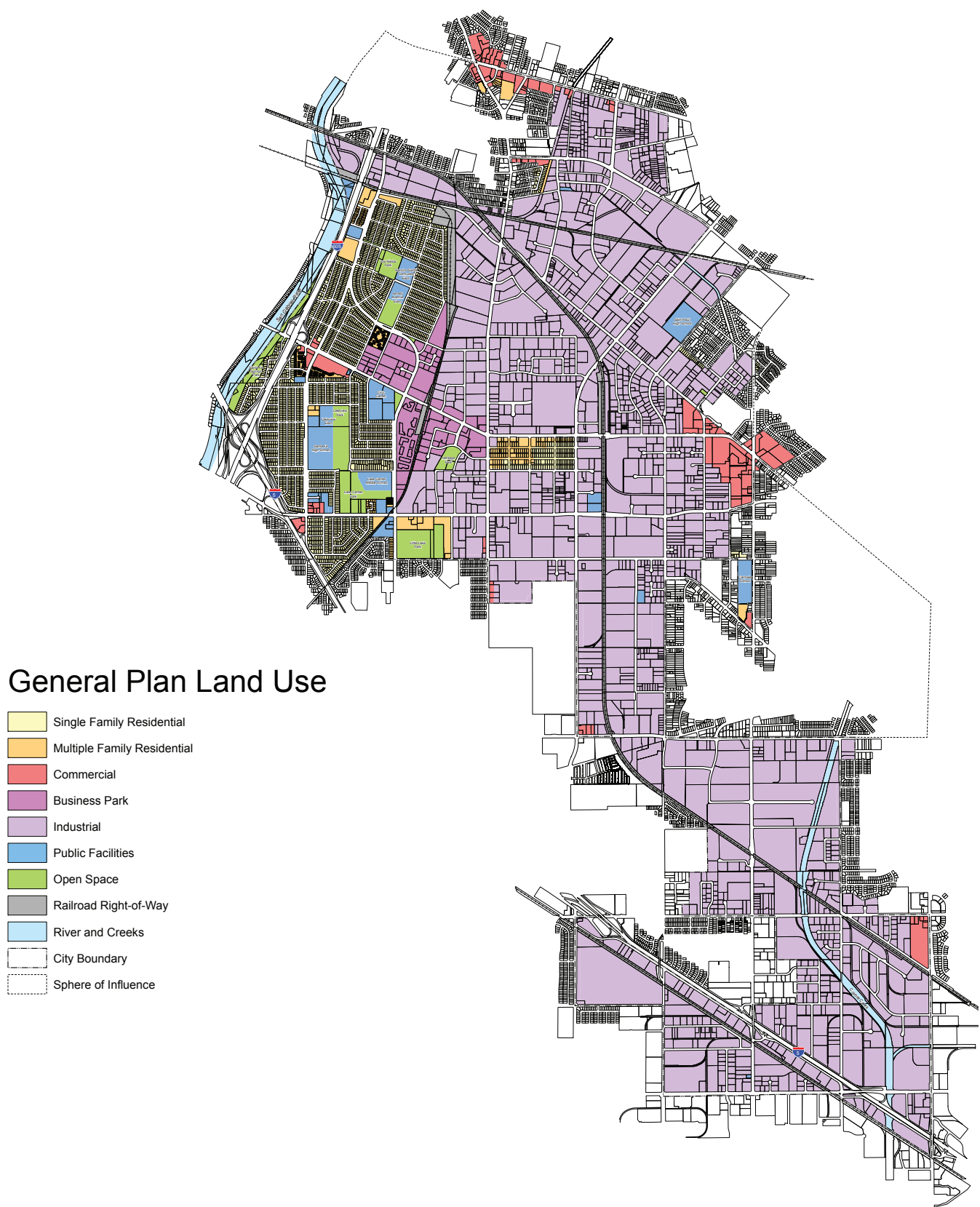
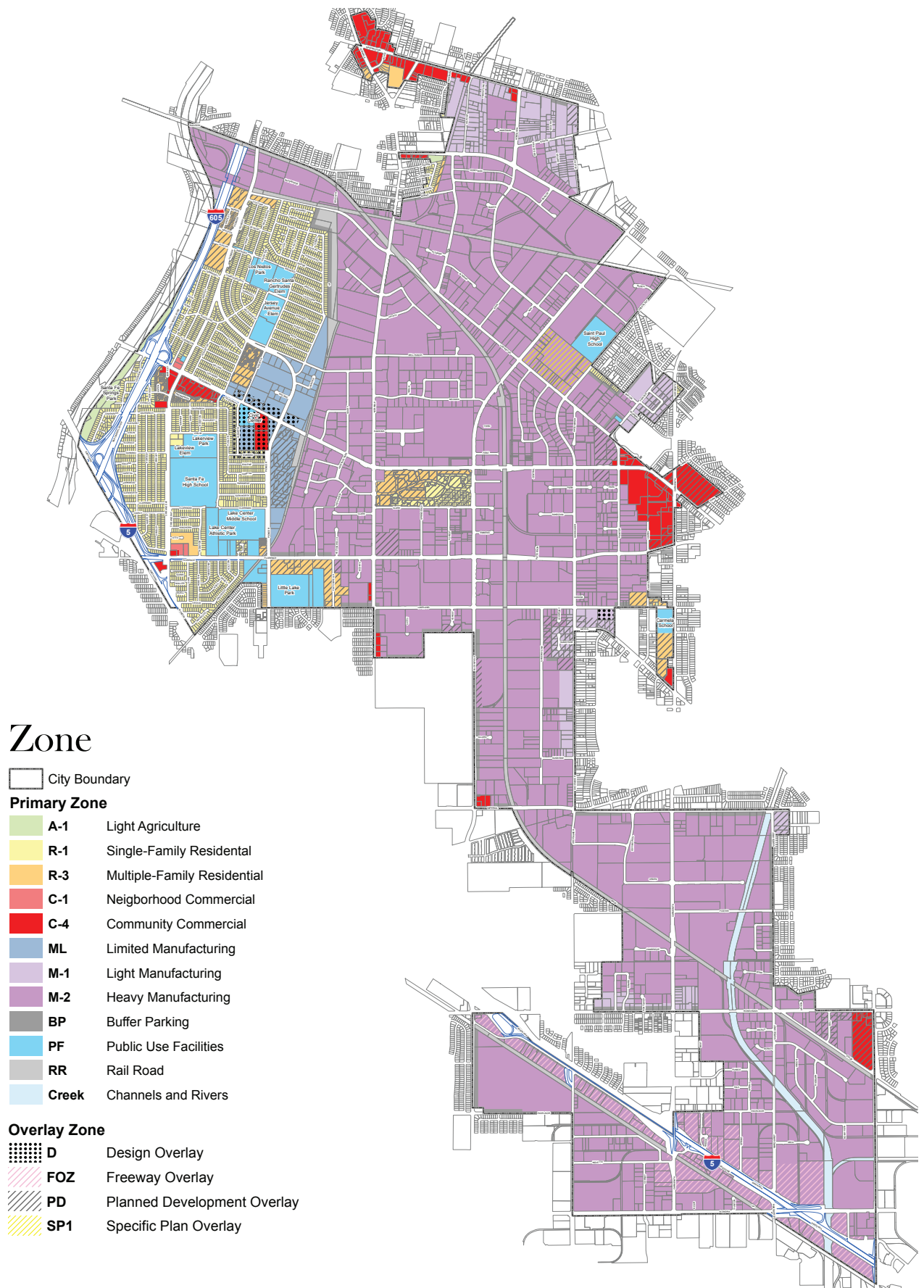


Figure 3-5: Zoning Map







## COMMUNITY AND EDUCATIONAL FACILITIES

### Public Schools and School Districts

Planning Area residents are served by four school districts: Little Lake City School District, Los Nietos School District, South Whittier School District, and Whittier Union High School District. These school districts operate 13 schools within the Planning Area with nearly 9,000 students enrolled. The ABC Unified and Norwalk-La Mirada school districts do not operate any schools within the Planning Area, but their boundaries overlap industrial areas in the southern part of the City. (see Figure 3-6)

In addition to these public schools, three private schools operate within the Planning Area, including St. Paul High School, Santa Fe Springs Christian School, and St. Pius X Parish School. These schools enroll approximately 800 students.

**Table 3-5: Enrollment by School**

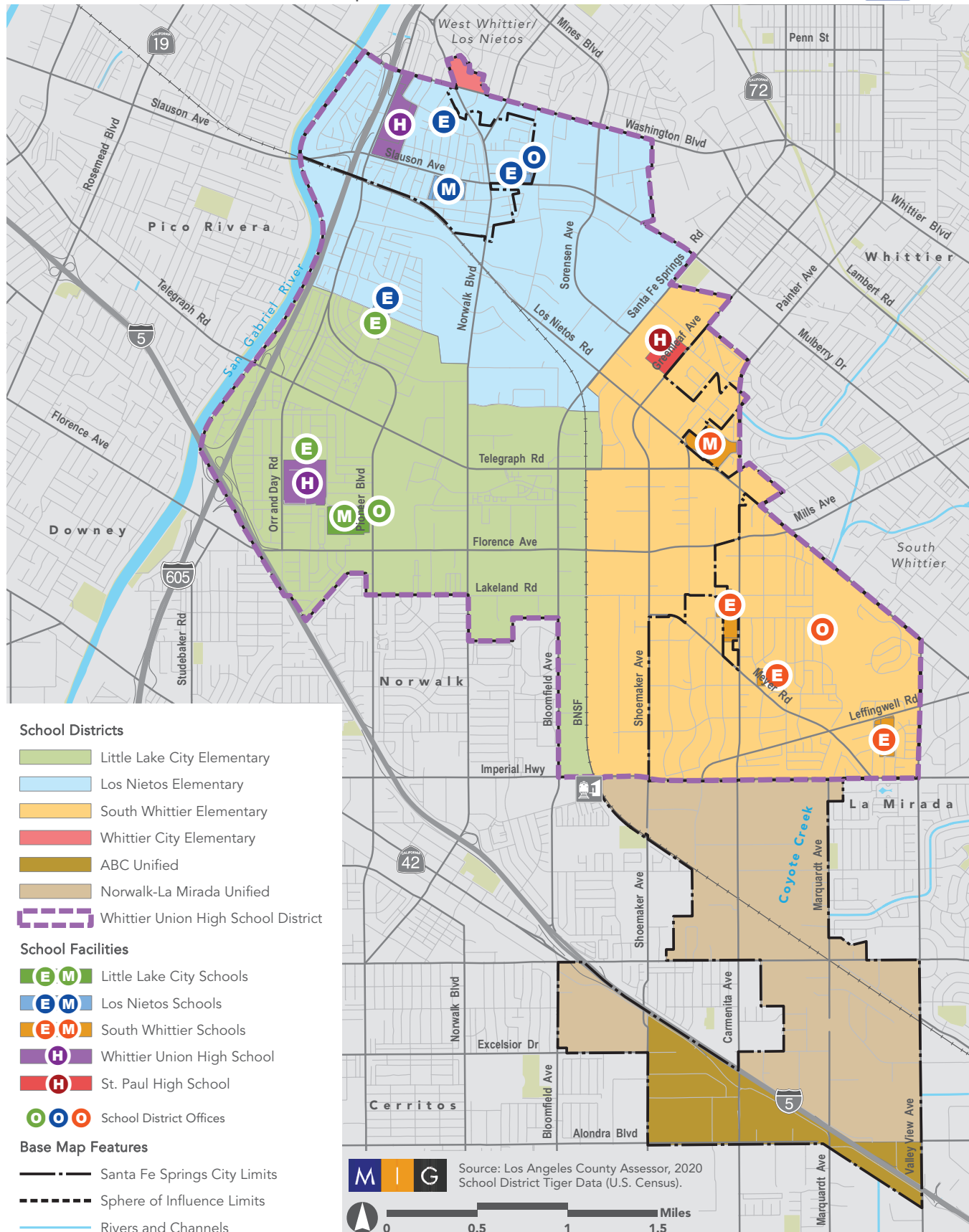
School Districts and Schools	Student Enrollment (2019-2020)		
	City	Sphere of Influence	Planning Area Total
<b><i>Little Lake School District</i></b>			
Jersey Avenue Elementary School	439	--	439
Lakeview Elementary School	523	--	523
Lake Center Middle School	919	--	919
<b><i>Los Nietos School District</i></b>			
Ada S. Nelson Elementary School	--	388	407
Aeolian Elementary School	--	414	414
Rancho Santa Gertrudes Elementary School	336	--	336
Los Nietos Middle School	--	355	355
<b><i>South Whittier School District</i></b>			
Carmela Elementary School	373	--	373
Loma Vista Elementary School / Monte Vista Middle School	--	798	798
Los Altos School	--	341	341
Richard Graves Middle School	622		622
<b><i>Whittier Union High School</i></b>			
Pioneer High School	--	1,181	1,181
Santa Fe High School	2,054	--	2,054
<b>Public Schools Total</b>	<b>5,266</b>	<b>3,477</b>	<b>8,762</b>
<b><i>Private Schools</i></b>			
St. Paul High School	532	--	532
Santa Fe Springs Christian School	128	--	128
St. Pius X Parish School	142	--	142
<b>Private Schools Total</b>	<b>802</b>	<b>--</b>	<b>802</b>

Source: California Department of Education, 2020.

Figure 3-6: School Districts and Schools



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## Community Facilities

Community facilities consist of libraries, learning centers, community centers, and recreational buildings. Many of the community facilities are centrally located at the Santa Fe Springs Civic Center, which includes City Hall, Town Center Hall, the Santa Fe Springs City Library, the Santa Fe Springs Aquatic Center, Soaring Dreams Plaza, the Clarke Estate, and Santa Fe Springs Community Garden.

The City operates one library facility and the William C. Gordon Learning Center, located at the Gus Velasco Neighborhood Center on Pioneer Boulevard (Figure 3-7). The Santa Fe Springs Public Library, established in 1961, offers a wide range of programs for children, teens, adults, and seniors. Both the library and learning center offer internet access and provide free Wi-Fi.

The activity center at the Los Nietos Park includes a fitness facility with weight training and cardio equipment, indoor racquetball courts, a boxing training facility, indoor basketball courts, and locker rooms. Sports leagues and fitness programs, such as youth gymnastics and boxing, are held at the activity center. The Betty Wilson Center, located at Lake Center Athletic Park Athletic Park, houses the Police Services' Family and Youth Intervention Program (FYIP), which provides a range of services to families and youth experiencing relationship and developmental challenges.

The City provides family, senior, and case management services at the Gus Velasco Neighborhood Center, including outreach, information, and programming for youth, families, and seniors around topics related to family unity, health and wellness, and inter-generational programming. Services include an emergency food pantry, community closet, legal services, notary services, volunteer income tax assistance program, utility assistance program, recreational and educational classes, a computer lab, and the William C. Gordon Learning Center.

Los Angeles County's Workforce Development, Aging, and Community Services Department operates the Los Nietos Community and Senior Center (see Table 3-6). The Center is a multi-purpose facility designed to enhance the community with a range of educational, social, and recreational activities. Center staff coordinate with County departments and non-profit agencies to provide information and referrals, form completion assistance, and translation services. Other services include an exercise room, food bank, resource fairs, community forums, flu shot clinic, and assistance in reporting elder abuse.



*Gus Velasco Neighborhood Center*

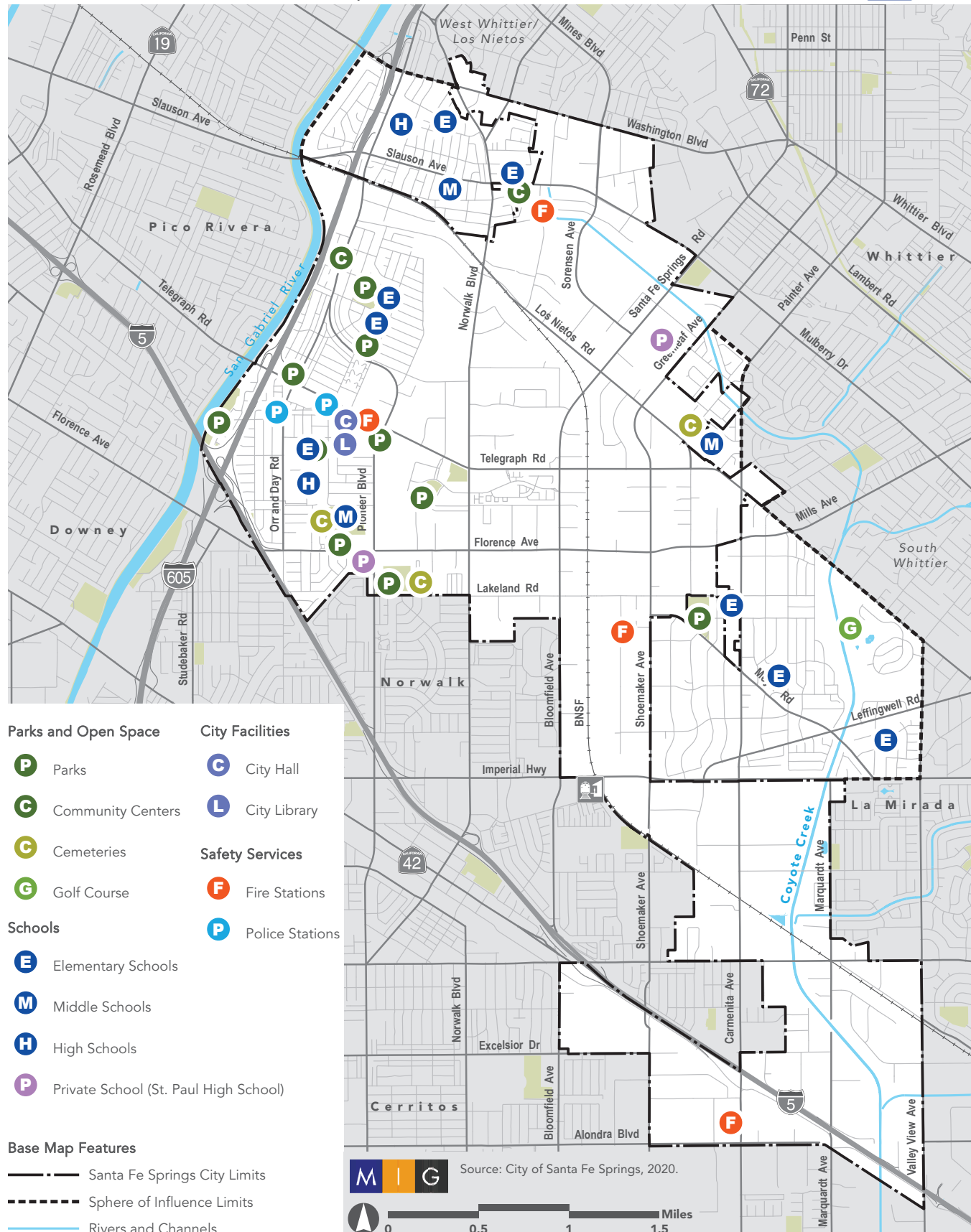


*Santa Fe Springs Activity Center*



# Figure 3-7: Community Facilities

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2

Library/  
Learning  
Center



4

Community  
Centers



1

Aquatic  
Center



1

Activity  
Center  
(Gymnasium)

Table 3-6: Community Facilities

Facility	Location	Amenities and Services
<b>Libraries</b>		
Santa Fe Springs City Library	11700 Telegraph Rd	Computers, coffee shop, technology classes, book groups, story times, events and programs, homework center, Children and Teen Library sections, Spanish Reading Room, and Adult Reading Room
William C. Gordon Learning Center	Gus Velasco Neighborhood Center 9255 S. Pioneer Blvd	Library space, online access computers, books, DVDs, music, senior resources
<b>Community Centers and Facilities</b>		
Betty Wilson Center	Lake Center Athletic Park 11641 Florence Ave	--
Gus Velasco Neighborhood Center	9255 S. Pioneer Blvd	Room and social hall rentals, preschool, senior services
Los Nietos Community and Senior Center (Los Angeles County)	11640 East Slauson Ave	Exercise room, form completion assistance, translation services, food bank, resource fairs, community forums, flu shot clinic
Town Center Hall	11740 Telegraph Rd	Social Hall
<b>Recreational Facilities</b>		
Activity Center	Los Nietos Park 11155 Charlesworth Rd	Gymnasium, racquet ball courts, basketball courts, volleyball courts, fitness facility, locker rooms and showers
Santa Fe Springs Aquatic Center	10145 Pioneer Blvd	Swimming pool, aquatics classes, recreation swim, junior lifeguard program, lap swim, private pool rental, swim lessons, water exercise
<b>Historical Facilities</b>		
Clark Estate (City)	10211 Pioneer Blvd	Historical building and wedding reception venue
Hathaway Ranch Museum (Private)	11901 Florence Ave	Farming, ranching, and oil drilling equipment from the late 19th to the mid-20th centuries
Heritage Park	12100 Mora Dr	Carriage Barn, Tankhouse Windmill Building, and the Plant Conservatory

Source: City of Santa Fe Springs, 2020.



### Parks and Recreation

Santa Fe Springs manages 80.3 acres of parkland across 15 parks and recreational facilities, divided into parks, parkettes, and other recreational facilities (see Table 3-7 and Figure 3-8). The park facilities vary in size and amenities, with some that include community facilities within the park. Los Angeles County manages one county park in the City. Candlewood Country Club is a private golf course in the City's Sphere of Influence.

The National Park and Recreation Association (NRPA) provides information about national trends in parkland provision, noting that the standards vary widely depending upon rural versus suburban versus urban locations. NRPA's 2020 NRPA Agency Performance Review reported that a city with a population under 20,000 typically provides between 5.2 to 20.8 acres of parkland per 1,000 residents. In Southern California, a more typical figure is three to five acres of park per 1,000 residents. With a total population of 18,295 in 2020, Santa Fe Springs has 4.7 acres of parkland per 1,000 residents.



# 80.3

acres of parkland  
in Santa Fe Springs



# 4.4

acres of parkland  
per 1,000 residents

Los Angeles County  
averages 3.3 park acres  
per 1,000 persons



Los Nietos Park playground





**Table 3-7: Parks and Recreational Facilities**

Facility	Type	Acres	Amenities
<b><i>Santa Fe Springs Recreation Facilities</i></b>			
<i>City Parks</i>			
Los Nietos Park	Park	11.0	Athletic fields (baseball/softball), basketball courts, children's play area (playgrounds), equipment for use, handball/ racquetball, horseshoe pits, lighted facilities, picnic areas with bbq grills, restrooms, tennis courts, wading pool, child care center
Santa Fe Springs Park	Park	10.8	Athletic fields (baseball/softball), basketball courts, children's play area (playgrounds), equipment for use, handball/ racquetball, horseshoe pits, picnic areas with bbq grills, available for rent, playing fields, restrooms, wading pool, parking lot
Santa Fe Springs Athletic Fields	Park	7.0	Athletic fields (baseball/softball), playing fields, playground
Little Lake Park	Park	19.8	Athletic fields (baseball/softball), basketball courts, equipment for use, formal picnic areas, playing fields, children's play area (playgrounds), horseshoe pits, lighted facilities, picnic areas with bbq grills, sheltered picnic area available for rent, wading pool, parking lot
Lake Center Athletic Park	Park	4.5	Baseball/softball fields, basketball courts, play fields, playgrounds, picnic areas
Lakeview Park	Park	6.7	Athletic fields, basketball courts, playground, handball/ racquetball, picnic Areas with BBQ grills, restrooms, wading pool
<i>Parkettes</i>			
Bradwell Avenue Parkette	Parkette	0.2	Playground, turf area, and benches
Davenrich Street Parkette	Parkette	0.1	Playground, turf area, and benches
Longworth Avenue Parkette	Parkette	0.2	Playground, turf area, and benches
<i>Other City Recreational Facilities</i>			
Clark Estate	Historical Site and Events Center	6.0	Historic building, rental facilities
Friendship Park	Passive Green Space	0.2	Monument and passive space
Heritage Park	Historical Site and Passive Green Space	7.5	Carriage Barn Museum, Tankhouse Windmill Building, Plant Conservatory, special event rentals, picnic areas with BBQ grills, restrooms, parking lot
Santa Fe Springs Aquatics Center	Aquatics Facility	2.3	Outdoor swimming pools, indoor swimming pool
Santa Fe Springs Community Garden	Community Garden	2.0	Gardening parcels for rent, equipment for use, picnic area



Facility	Type	Acres	Amenities
Soaring Dreams Plaza	Passive Green Space	2.0	Bronze statues and open lawn
Santa Fe Springs (City) Total		80.3	
<b>Other Recreation Facilities - Sphere of Influence (SOI)</b>			
Amelia Mayberry Park	Los Angeles County Park	14.4	Athletic fields (baseball/softball), basketball courts, senior center, barbecues, playgrounds, community gardens, fitness par courses, fitness zones, formal picnic areas, picnic tables, splash pads
Candlewood Country Club (Private)	Private Golf Course	83.0	Clubhouse and Golfcourse
Other Recreation Facilities (SOI) Total		97.4	

Source: City of Santa Fe Springs, 2020.

## Park Access

Since 2010, park and recreation planning best practices have evolved to be more flexible and include community participation to ensure metrics and standards that are locally relevant. Many agencies now measure parkland service and distribution by evaluating how many of their residents live within a 10-minute walk, or one-half mile, of a park. Figure 3-8 illustrates how this concept applies in Santa Fe Springs. Seventy-seven percent of City residents live within one-quarter mile—or a five-minute walk—of a City or county park, and 91% of City residents live within one-half mile, or a 10-minute walk.

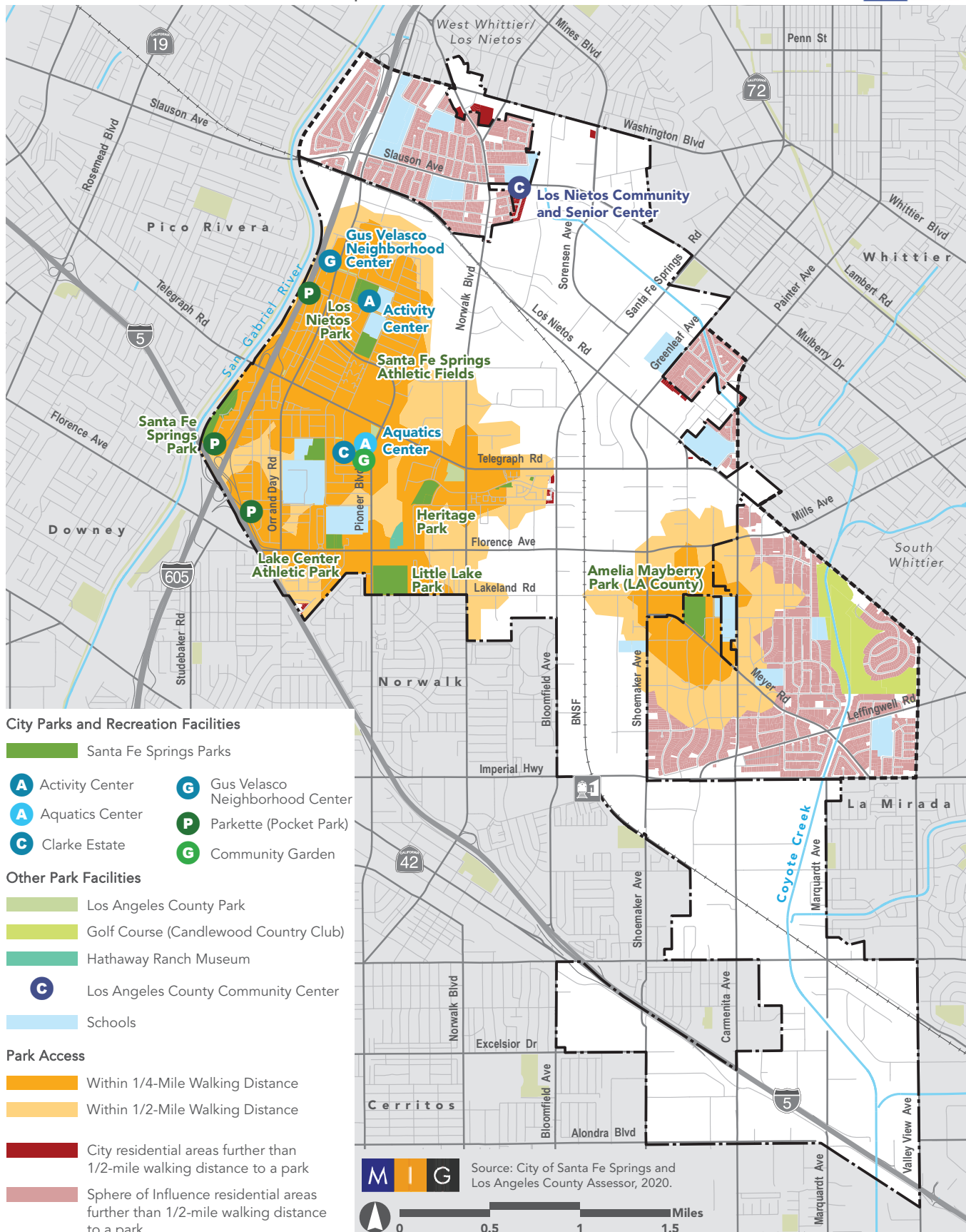
Small residential developments along the edges of the City's boundary, including those near Norwalk Boulevard, Slauson Avenue, Greenleaf Avenue, and Carmenita Avenue, are not within walking distance to a park. These areas represent less than 10% of the City's total population and are in areas designated as Disadvantaged Communities.

Residents within adjacent County unincorporated areas appear to enjoy less access to parks, with only 7% of residents within a five-minute walk and 15% living within one-half mile. Nearly 80% do not live within one-half mile from a park. West Whittier/Los Nietos and portions of South Whittier Sphere of Influence areas include limited walking access to parks. These areas are also designated as a Disadvantaged Communities.



# Figure 3-8: Parks and Recreational Facilities

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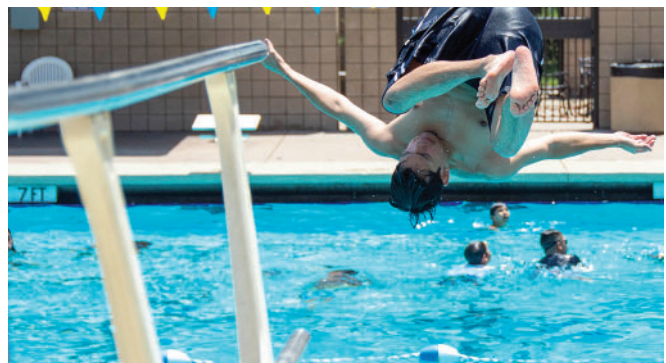
### Park and Recreation Programs

The City's Parks and Recreation Services Division offers a wide range of park and recreation programs for families and community members of all age groups, including community events, aquatics programs, and active, artistic and educational classes. City events and programs are announced in the Santa Fe Springs Activities, Class Schedule & Programs quarterly publication.

The City hosts free and low-cost events year round, which are promoted across multiple channels of communication. The Aquatics Center offers programs and activities during the summer. Programs include aquatic classes, water exercise programs, a junior lifeguard program, and a teen swim party. The Park and Recreation Services Division provides camp opportunities for children year round. The City's Family Camp allows families to travel together and enjoy the Lake Arrowhead area. The City also hosts Spring and Summer Camps for youth locally.



Community Events



Aquatics Center



Recreational programming at Activity Center





The City offers active, artistic, and educational classes aimed to engage the community in new activities. There are classes for all age groups, from very young children to seniors. In its quarterly publication, the City organizes its programs into the following categories: City activities and events, family fun excursions, preschool and child care, city sports, teen programs, youth fitness, fitness and enrichment, the Aquatic Center, family and human services, and older adults 50+. Examples from the City of Santa Fe Springs Activities, Class Schedule & Programs Fall 2019 publication are listed below; this list is not comprehensive.

- **City Activities and Events.** Annual Pow Wow, Blazing Tees Charity Golf Tournament, Pumpkin Carving and Haunted House, and Fiestas Patrias and Art Fest
- **Family Fun Excursions.** Los Angeles County Fair, End-of-Summer Concert, First Friday, Food and Films from Around the World, Creepy in the Park after Dark, STEAM Storytime and Lego Workshops
- **Preschool and Child Care.** Preschool Storytime at the Library and Bilingual Storytime
- **City Sports.** Adult Softball, Youth Soccer and Nerf Football Clinic
- **Teen Programs.** Family Fajitas, Parent Night and Open House, Rocktober and Halloweek
- **Youth Fitness.** Boxing and Gymnastics
- **Fitness and Enrichment.** Beauty Makeup & the Basics, Boot Camp, Piano, Country Line Dancing and Yoga
- **The Aquatic Center.** Adult Lap Swimming and Water Exercise
- **Family and Human Services.** Case Management, Covered California, Legal Services, Gus' Kitchen, The Whole Child, Notary Services and Water Discount Program
- **Older Adults 50+.** Masquerade Dance, Disco Dance, Scare Dare Game Show, Latin Dance Cardio, Movin' N' Groovin', Yoga, Older Adult Painting, Bingo! and Café y Charlas

The City's Parks and Recreation Division oversees three committees: Parks and Recreation Advisory Committee, Sister City Committee, and Youth Leadership Committee, with all members being City residents. The Parks and Recreation Advisory Committee (PRAC), with 25 members appointed by the City Council, serves as an advisory body for programs, events and services run by the Parks and Recreation Services Division. The PRAC also makes formal recommendations to the City and Council around City policy and projects.

The Sister City Committee provides summer exchanges with Santa Fe Springs' Sister City of Tirschenreuth, Germany for youth ages 15 to 18. Youth ages 15 to 18 who attend Santa Fe High School, Pioneer High School, or St. Paul High School and maintain a grade point average of 2.5 or higher are eligible to join the "Santa Fe Springs Young Ambassadors Association," which meets once a month and plans and conducts fundraisers to earn money for their trip to Germany. The trip to Germany takes place every other year on odd years.

The Youth Leadership Committee (YLC) aims to foster greater involvement in the community and municipal government among youth. The YLC provides guidance on youth-related programs and services in Santa Fe Springs. The YLC has 20 members appointed by the City Council.

In response to the 2020 COVID-19 pandemic, the City initiated new programs to provide indoor activities. Parks and recreation services staff rolled out the "Rec N Roll Patrol" program to deliver "Safe at Home" recreation kits and outdoor chalked art areas to City residents.



### Key Considerations

- With nearly 80 acres of parkland the City manages, the residents enjoy nearly five acres of parkland per 1,000 residents, much higher than the County average of three acres per 1,000 residents.
- The core residential areas between north and south of Telegraph Road generally have good walking access to park facilities; the SOI and some Disadvantaged areas are not accessible to parks.
- Recreational programming is a strong component of the City's recreational system offering a diverse array of activities at many community facilities.



## CULTURAL RESOURCES

### Historical Context

Santa Fe Springs has a long and rich history, evolving from its early period as an agricultural community to its current form as an industrial city. The following highlights key moments in the City's history.

Before the arrival of Spanish settlers in the 1700s, the area that would later become Santa Fe Springs consisted of Tongva People that inhabited a village called Sejatnga near the current City of Whittier and the San Gabriel River. By 1806, the Tongva were providing labor for Spanish missions. The area was part of the early Spanish rancho of Jose Manuel Nieto, the holder of the largest Spanish land grant in California, stretching from the Pacific Ocean to the Puente Hills. Puente Hills, located in an unincorporated area just north of the City of Whittier, contains archaeological and paleontological resources that pre-date Spanish and Mexican land grants, dating back thousands of years and reflecting Native American settlement patterns.

### Los Nietos Township

A Spanish Land Grant to Jose Manuel Nieto in 1784 marked the arrival of Europeans. According to Colonel J.J. Warner, the community of Los Nietos had 200 residents in 1836. In 1867, a post office, two stores, a schoolhouse, and a saloon were established. The principal crops and livestock were corn, barley, beans, sheep, and hogs.

### Fulton Wells

In 1874, Dr. James E. Fulton discovered a sulfur spring and developed a health spa and small hotel in present-day Santa Fe Springs, generating a modest tourism industry. The community was called Fulton Wells.

### Railroads

The Atchison, Topeka & Santa Fe Railway purchased land from Dr. Fulton in 1886 to develop a railroad line from Los Angeles to San Diego. The City's name derives from the Atchison, Topeka & Santa Fe Railway combined with the springs Dr. Fulton discovered. The arrival of German immigrants and the establishment of a Quaker Colony resulted in the establishment of the adjacent town of

Whittier. In the 1890's, the Southern Pacific Railroad built a train depot in Whittier, branching off from its main line in Santa Fe Springs. The Southern Pacific Railroad's Whittier line served commuters between Los Angeles, Huntington Park, and intermediate communities, passing through Santa Fe Springs on its way to the Whittier depot. The Pacific Electric Railway's La Habra-Yorba Linda line opened in 1911 with a bridge crossing the San Gabriel and the electrical substation located near Norwalk Boulevard, both which are still intact as of 2020. This line later closed in 1938 due to poor ridership.

The service of three railroad systems contributed to Santa Fe Springs' regional prominence as an industrial and manufacturing hub. In 1914, Los Nietos was described in the Los Angeles Times as "strategically located as a manufacturing center with railways, water, and electric current." All three rail lines came together at Los Nietos Junction.



*Little Lake Schoolhouse, Florence Avenue, 1892*



*Santa Fe Springs home, circa 1890s*





## Oil

In 1907, a local sheepherder, Marius Meyer, invited Union Oil Company to poke around his land in search for oil. After two unsuccessful wells, the third well started flowing at 3,000 barrels a day, near the intersection of Norwalk Boulevard and Telegraph Road, nearly 10 years after Mr. Meyer's invitation. Another rancher, Alphonzo Bell, was also certain oil was on his land. Standard Oil declined his request to search for oil on his ranch, citing Union Oil's early issues on Mr. Meyer's property. It was later determined that two-thirds of Bell's property were

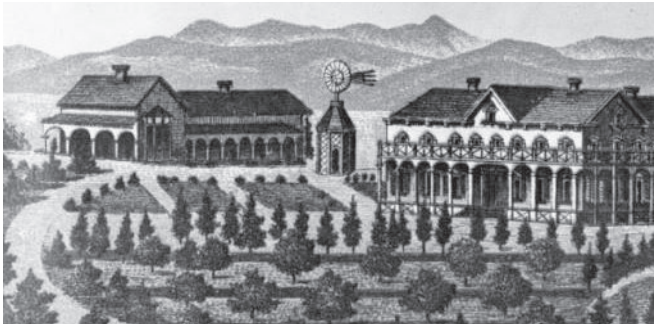
atop one of the world's richest pools of oil. In 1921, the Union-Bell well set off an oil rush by major oil companies with a 2,500-barrel gusher. Within a year, the Santa Fe Springs oil field was considered one of the richest sources of oil in petroleum history. Oil remained Santa Fe Springs' primary economic driver into the 1980s.



Telegraph Road and Norwalk Boulevard, 1921



Oil well field, circa 1920s



Fulton Wells Sanitarium illustration, circa 1800s



Pacific Electric street car, 1938



Telegraph Road and Orr & Day Road shopping center, 1961



Telegraph Road and Norwalk Boulevard, 1957





## Historical Points of Interest

Santa Fe Springs' historical points of interest are listed below and shown on Figure 3-9.

- Clark Estate.** Famed architect Irving Gill built the Clarke Estate for Chauncey and Marie Rankin Clarke between 1919 and 1921. The 8,000-square-foot residence is built around a central courtyard decorated with Tuscan-style columns and arches, on 60 acres of citrus groves. The Clarkes lived at the estate briefly as they were annoyed by the discovery of oil close to their home. Many of Irving Gill's buildings have been destroyed across Southern California; thus, the Clarke Estate represents a unique resource. The Clark Estate was listed on the National Register of Historic Places in 1990.
- Hathaway Ranch Museum.** The Hathaway Ranch Museum is a private museum holding farming, ranching, and oil drilling equipment from the late 1800s to the mid-1900s. The museum provides hayrides, antique engine demonstrations, and tours.
- Heritage Park.** Heritage Park is a six-acre, reconstructed ranch estate from the late 1800s. The park is located within a corporate center and features a museum and railroad exhibit. The park is currently operated by the Santa Fe Springs City Library and available by reservation.
- Historical Railroad Exhibit.** The Historical Railroad Exhibit located at Heritage Park presents a cross-section of local railroad history. The exhibit uses a restored No. 870 locomotive and historical railroad equipment and buildings to demonstrate the importance of the railroad to the Southern California region.

The nearby cities of Norwalk and Whittier also feature historical buildings, museums, and neighborhoods demonstrating the area's cultural and economic history. The City of Norwalk maintains the D.D. Johnston-Hargitt House Museum and Gilbert Sproul Museum, both of which display historical artifacts and heirlooms donated by local families prominent in the 19th and 20th centuries. Whittier's Historic Uptown includes many structures dating back to the late 1800s and early 1900s, and



Clark Estate



Hathaway Ranch Museum



Heritage Park - The Plant Conservatory



Historica Railroad exhibit

**Historical Railroad Lines**

- Pacific Electric (PE) Railway Company
- Atchinson Topeka and Santa Fe
- Southern Pacific Railroad
- Pacific Electric Features

**Historical Points of Interest/Formers Sites**

- Historical Site/Museum
- Historical Point of Interest
- Cemetery
- Townships and Communities (1900)

**Year Built (1885 to 1950)**

- Year Built: 1885 to 1920
- Year Built: 1921-1950

**Base Map Features**

- Santa Fe Springs City Limits
- Sphere of Influence Limits
- Rivers and Channels

Source: Los Angeles County Assessor, 2020; USGS, 1900; and City of Santa Fe Springs.





*Telegraph Road and Clark Estate with oil fields in the background, circa 1920s*

structures built in the 1930s and 1940s are concentrated in the western area of Whittier.



### Key Considerations

- The City owns and operates the historically significant Clarke Estate, designed by master architect Irving Gill.
- Heritage Park is a park that showcases its historic past with many historic buildings, railroad exhibit, Tongva exhibit, and educational experiences.
- Santa Fe Springs does not currently have a historic preservation ordinance nor has it enacted policies aimed at protecting privately owned, historic resources.
- There are no comprehensive surveys or inventories that identify any potential locally-significant historic resources.



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## CHAPTER 4: TRANSPORTATION AND INFRASTRUCTURE

EXISTING CONDITIONS TECHNICAL REPORT



**Re-Imagine**  
**Santa Fe Springs**

2040 GENERAL PLAN





# CHAPTER 4: TRANSPORTATION AND INFRASTRUCTURE

## EXISTING CONDITIONS TECHNICAL REPORT

INTRODUCTION

TRANSPORTATION

INFRASTRUCTURE



## INTRODUCTION

This chapter discusses the condition of transportation, water, wastewater, and stormwater infrastructure systems in Santa Fe Springs and how the systems are used. The Transportation section examines roadway, public transit, bicycle and pedestrian, local freight systems, and operating traffic conditions in terms of vehicle miles traveled (VMT) and levels of service (LOS). The Infrastructure section addresses water, wastewater, and stormwater systems.

## TRANSPORTATION

This section documents the baseline 2020 transportation system serving the City of Santa Fe Springs, including an inventory of the overall transportation environment for auto, transit, freight, and bicycle and pedestrian networks, vehicle collision history, and roadway operations analysis. The existing conditions data were compiled from information provided by the City of Santa Fe Springs, available plans and studies, field observations, and field data collection.

## Demographic/Growth Forecasts

For regional planning purposes, Santa Fe Springs is part of the Southern California Association of Governments (SCAG) region. SCAG is a multijurisdictional organization that forecasts and plans for growth for the six-county region of Los Angeles, Riverside, San Bernardino, Orange, Ventura, and Imperial counties. Table 4-1 below presents growth forecasts for the City of Santa Fe Springs according to SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Santa Fe Springs is an employment destination, with nearly 50,000 jobs in the City. Over the next 15 years, SCAG estimates the number of jobs will remain close to 2020 levels, while households and population will increase by 12% to 13%, representing a growth rate of about 0.85% per year. Given that the City is projected to support an increase in people living in the City by 2035, this creates an opportunity to improve the transportation network to prioritize the safe movement of people.

**Table 4-1: Growth Forecasts**

Demographic	2020	2035	Percent Change
Population	17,900	20,300	13%
Households	5,200	5,800	12%
Employment	49,600	50,500	2%

Source: Regional Transportation Plan/Sustainable Communities Strategy: Demographics and Growth Forecasts Appendix, SCAG, 2020.



Looking west along Telegraph Road at Norwalk Boulevard



## Vehicle Ownership and Travel Modes

Most households in the City of Santa Fe Springs own at least one vehicle, with 31% owning one vehicle, 30% owning two vehicles, and a majority—32%—owning three or more vehicles. Only seven percent of households do not own a vehicle. For trips to work, 83% of people drive alone, 10% carpool, and one percent take public transportation. This creates an opportunity for the City to invest in active transportation and transit infrastructure to reduce overall vehicle ownership and increase commute trips other than those in a personal vehicle to promote human and environmental health.

## Regulatory Framework

The 1994 General Plan Circulation shapes the local transportation planning and drives decision-making regarding circulation. The Active Transportation Plan, which is under development as of August 2020, will identify opportunities to improve conditions for walking and biking in Santa Fe Springs.

## General Plan Circulation Element

The Santa Fe Springs General Plan Circulation Element, adopted in 1994, identifies long-term comprehensive strategies for accommodating all travel modes. The Circulation Plan documents the general location and effectiveness of roadways, including streets, highways, and transit routes. The element does not, however, use a coordinated approach to accommodating all travel modes and leans heavily toward policies that support the efficient movement of motor vehicles. This approach was typical for its time and reflected the highly industrial nature of the City and the necessity of moving truck traffic safely.

## Active Transportation Plan

The Active Transportation Plan, or ATP (in process as of mid-2020), represents a commitment by Santa Fe Springs to elevating walking and biking as key travel modes as the City prioritizes a shift from the auto-centric approach of the past. The ATP sets forth four goals: 1) increase safety and health, 2) improve access and comfort, 3) reduce household transportation costs, and 4) identify, develop, and maintain a complete and comfortable active transportation network.

## Traffic Commission

The Santa Fe Springs Traffic Commission serves in an advisory capacity to the City Council in matters relating to traffic control and public safety. The Commission reviews traffic bureau reports, traffic and collision data, traffic signal and stop sign changes, street improvements, curb striping changes, and parking restrictions.



**83%**  
commute to  
work alone



**10%**  
carpool to  
work



**1%**  
use transit to  
travel to  
work





## Existing Transportation System

Santa Fe Springs is located near confluence of Interstate 5 (I-5) to the south and Interstate 605 (I-605) to the west, with close access to Whittier Boulevard (SR-72) to the north and Rosemead Boulevard (SR-19) to the east. Many of the major roadways within the City provide freight access to industrial areas. According to 2017 U. S. Census data, 62% of jobs in the City were in the construction, manufacturing, or wholesale trade industries. These industries tend to rely on freight, delivery, and other larger vehicles to conduct business. The industrial uses form the center core of the City, with residential neighborhoods, schools, and parks generally located along the perimeter.

## Planned Street Classifications

This section describes the planned street classification network as identified in the 1994 General Plan Circulation Element. Planned street classifications are illustrated in Figure 4-1.

### Freeways

I-605 runs along the northwestern border of Santa Fe Springs, extending from the community of Rossmore and Seal Beach in Orange County to the south to Baldwin Park in Los Angeles County to the north. Within the City, Telegraph Road, Slauson Avenue, and Washington Boulevard provide primary access to I-605. I-5, on the southwest City boundary, is a major interstate highway providing north-south connectivity to Los Angeles, Anaheim, and Irvine, and as far north as Washington state. Florence Avenue is the primary access roadway to I-5 and the I-605/I-5 interchange.

### Major Arterials

Major Arterials are designed to move large volumes of traffic through the community. Most of the arterial roadways have four to six lanes, with a two-way left-turn lane. Telegraph Road has a raised median instead of a dedicated left-turn lane, with turns permitted at specific intersection and driveways. Traffic signals are the primary traffic control on arterials within the City. Major Arterials include:

- » Washington Boulevard
- » Slauson Avenue

- » Telegraph Road
- » Norwalk Boulevard
- » Orr and Day Road
- » Pioneer Boulevard
- » Santa Fe Springs Road/Bloomfield Avenue
- » Carmenita Road
- » Imperial Highway
- » Rosecrans Avenue
- » Alondra Boulevard
- » Valley View Avenue

### Secondary Arterial

Secondary roadway's primary function is to provide connectivity between commercial and industrial areas. These roadways are generally located in the eastern part of the City—south of Imperial Highway—and include portions of Leffingwell Road, Shoemaker Road, and Foster Road. These roadways are generally wider, providing mobility for freight vehicles, and are generally one to two lanes in each direction. Secondary Arterials include:

- » Sorenson Avenue
- » Los Nietos Road
- » Greenleaf Avenue
- » Shoemaker Avenue
- » Painter Avenue
- » Meyer Road
- » Leffingwell Road
- » Foster Road
- » Lakeland Road
- » Marquardt Avenue

### Local Streets

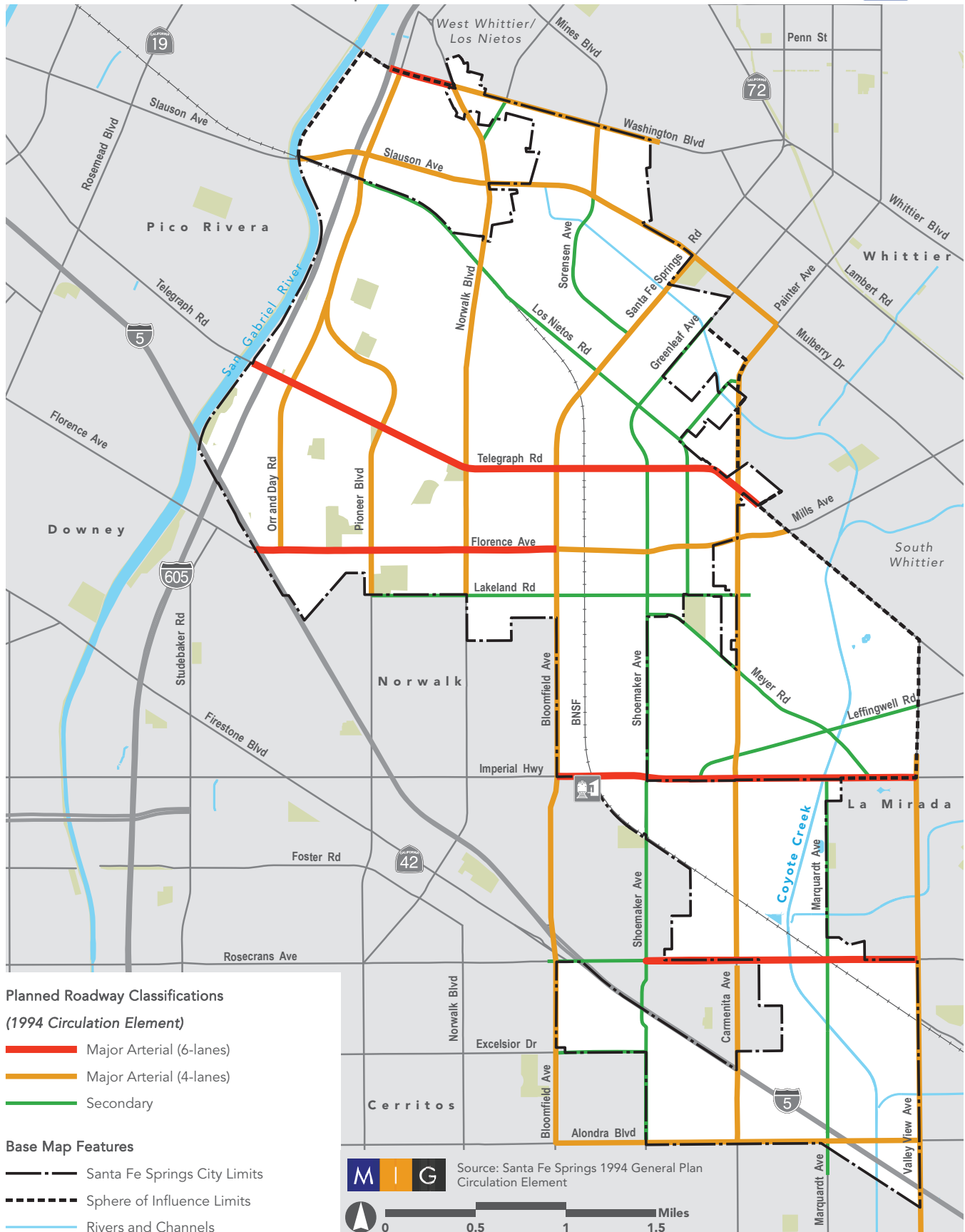
Local streets provide access to and from residential neighborhoods and generally provide one travel lane in each direction with on-street parking permitted on both sides of the street. These roadways are primarily located on the western and southeastern part of the City. Most local streets have a posted speed limit of 25 mph.



# Figure 4-1: Planned Street Classification



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## Roadway Improvements

### I-5 Freeway Expansion Project

The California Department of Transportation (Caltrans) is investing \$1.9 billion dollars to improve southern segments of I-5 (the Santa Ana freeway) between the Orange County line and I-605 (the San Gabriel River freeway). Improvements will enhance safety, add traffic lanes, encourage ridesharing through new high occupancy vehicles (HOV) lanes, decrease surface street traffic, and help improve air quality .

Construction began in 2016 to improve the Valley View Avenue Interchange, which will add new HOV and mixed-flow lanes on I-5 between Artesia Boulevard and North Fork Creek. Three bridges will be reconstructed as part of the project, including one at Valley View Avenue, which will also incorporate a new railroad overpass. Construction is expected to be completed by late 2021.

The Florence Avenue Widening Project, which widens Florence Avenue between Orr and Day Road to Pioneer Boulevard, will provide additional eastbound and westbound travel lanes to accommodate a total of three travel lanes in each direction. Sidewalk, curb ramp, and supportive transit infrastructure will also be improved. Construction is expected to be completed by 2020.

Projects completed as of 2019 include a fourth freeway lane on northbound I-5 from Alondra Boulevard to Orr and Day railroad overpass, Carmenita Road overcrossing expansion, Alondra Boulevard overcrossing expansion, and elements of the Imperial Highway/Pioneer Boulevard project, including HOV expansion on I-5 and Imperial Highway and Pioneer Boulevard under-crossings.

### Planned Roadway Improvements

The vehicle overpass on Rosecrans Avenue at Marquardt Avenue will allow elevated crossing of the BNSF railway tracks. This intersection was identified by the California Public Utilities Commission as one of the most hazardous crossings in the State. Construction is expected to be complete by 2023 .



Florence Avenue Interchange Project



## Public Transportation System

The public transportation system in Santa Fe Springs provides non-auto options for commute, utility, and recreational travel, with connections to downtown Los Angeles, LAX, and other regional cities and destinations. This section describes the transit agencies serving Santa Fe Springs and the transit routes and services available to the community.

### Transit Agencies

The City of Santa Fe Springs is served by a number of bus, commuter rail, and shuttle and paratransit services. The following agencies provide regional connectivity, providing an alternative to driving a personal vehicle.

- **Metrolink.** Metrolink is a commuter rail system that consists of 62 stations operating on 534 miles of rail network throughout Southern California, with key connections to most major cities. Metrolink operates seven different rail lines, with the Norwalk/Santa Fe Springs Station serving two lines: 91/Perris Valley Line and Orange County Line. Regular one-way fares range from \$3.50 for destinations within a short distance to \$16.75 for destinations within a longer distance. Discounts can be applied to seniors, disabled, students, and actively military personnel.
- **Los Angeles County Metropolitan Transportation Authority (Metro).** Metro provides rail and bus service throughout Los Angeles County, with a number of express and regular bus routes serving Santa Fe Springs. Fare starts at \$1.75 (as of 2020), with daily, weekly, and monthly passes available, as well as a LIFE monthly low-income pass.
- **Norwalk Transit.** Norwalk Transit provides fixed-route and paratransit service in Santa Fe Springs, Norwalk, Artesia, Bellflower, Cerritos, La Mirada, La Habra, Whittier, and areas of unincorporated Los Angeles County. The agency serves nearly 6,300 passengers each weekday on the six transit routes. Fares start at \$1.25 (as of 2020) with discounts for students/youth and seniors.
- **Montebello Bus Lines.** Montebello Bus Lines provides bus and dial-a-ride services to residents

of Montebello and neighboring cities, operating 24 hours a day, seven days a week. The agency operates the Washington Boulevard line with stops at Norwalk Boulevard and Broadway at Santa Fe Springs northern city limits. Fares start at \$1.10.

### Fixed-Routes Bus Service

The City is served by the Metro, Foothill Transit, Montebello Bus Lines, and Norwalk Transit System transit agencies. Bus transit generally runs every 30 to 45 minutes during the peak periods, with certain routes such as Norwalk route 7 and Metro routes 62 and 460 running every 25 minutes or better. Generally, transit users prefer reliable wait times of less than 15 minutes when making trip choices. Table 4-2 outlines the routes serving Santa Fe Springs and peak transit frequency. Figure 3 shows route pathways through Santa Fe Springs.

As shown in Figure 4-3, Metro bus stops along Telegraph Road have the highest number of average daily boardings. The corridor serves multiple transit routes, including Norwalk Transit routes 1 and 3, as well as Metro routes 62 and 120. Additional transfer opportunities are located on Bloomfield Avenue and Telegraph Road, Norwalk Boulevard and Telegraph Road, and Pioneer Boulevard and Orr and Day Road, which have some of the highest ridership stops for Metro and highest daily ridership transit routes within the City. Outside of the Telegraph Road transit corridor, the Alondra Boulevard and Valley View Avenue intersection has a high number of average daily boardings, likely due to the multiple Metro routes serving the intersection.



**3,860**  
daily weekday  
average riders use  
Metro Line 62 along  
Telegraph Road in  
2018



**Table 4-2: Transit Service in Santa Fe Springs**

Route	Origin	Destination	Peak Frequency
<b>Metrolink</b>			
Perris Valley Line	Downtown LA	Perris Valley	40 mins
<b>Norwalk Transit</b>			
Route 1	Rio Hondo College	Bellflower	30 mins
Route 3	Gateway Plaza	Norwalk and 166th	60 mins
Route 4	Imperial Highway	Metrolink Station	40 mins
Route 5	Green Line Station	La Mirada	45 mins
Route 7	Green Line Station	El Monte	25 mins
<b>Montebello Bus Lines</b>			
Route 50	Downtown LA	Whittier/La Mirada Center	65 mins
<b>LA Metro</b>			
Route 62	Downtown LA	Hawaiian Gardens	20 mins
Route 120	LAX Station	Whittwood Center	40 mins
Route 128	Compton Station	Cerritos Town Center	40 mins
Route 460	Downtown LA	Disneyland	25 mins
Route 577	El Monte Station	Long Beach	45 mins

Source: Metrolink, Norwalk Transit, LA Metro, 2020.

## Metrolink

Metrolink's Norwalk/Santa Fe Springs station is located on Imperial Boulevard east of Bloomfield Avenue. The physical station is located within the City of Norwalk, with a pedestrian bridge crossing over the tracks to connect to a surface vehicle parking lot located in Santa Fe Springs. The station has 630 commuter parking spaces available for Metrolink riders at daily and monthly fees. Metrolink's fares are based on the total distance travelled determined by a passenger's origin and destination,

with monthly passes and discounted rates for seniors, students/youth, and active military. Long- and short-term bicycle parking is available in bike lockers and racks for users to make the first/last mile to transit without a motor vehicle. The Norwalk Transit System service facilities are located adjacent to the station.

## Shuttles and Paratransit

Santa Fe Springs, as of 2020, provides shuttle service to transit-dependent residents for transportation to medical institutions and to deliver meals to residents. Transportation to medical and dental appointments is available to residents age 60 and older, as well as for persons with disabilities. The coverage area includes areas within Santa Fe Springs, as well as to Downey, Norwalk, Pico Rivera, Santa Fe Springs, and the Bellflower Kaiser medical facility during weekdays.

Shuttle service is also provided to assist seniors, youth, and disabled groups with subsidized excursions to attend educational, recreational, or cultural events. Trips funded through this program are open to the general public.

## Proposed Transit Services

### Metro Eastside Corridor Phase 2

As of 2020, Metro is evaluating the Eastside Transit Corridor Phase 2, an extension of the Metro L Line (Gold) further east from its current terminus at Atlantic Station (Pomona Boulevard/Atlantic Boulevard) in East Los Angeles through the cities of Commerce, Montebello, Pico Rivera, Santa Fe Springs, and Whittier. The proposed line would travel south along Atlantic Boulevard underground from the current Metro L Line (Gold) terminus at Atlantic Boulevard Station to the Citadel Outlets in Commerce. The route would then proceed east along Washington Boulevard via aerial and/or at-grade (street level) configurations ending at Lambert Road in Whittier.

The East Transit Corridor Phase 2 extension was originally anticipated to be complete by 2035, but Metro's Twenty-Eight by '28 Initiative identifies the Gold Line Eastside Extension to Santa Fe Springs and Whittier with a 2028 target completion date.



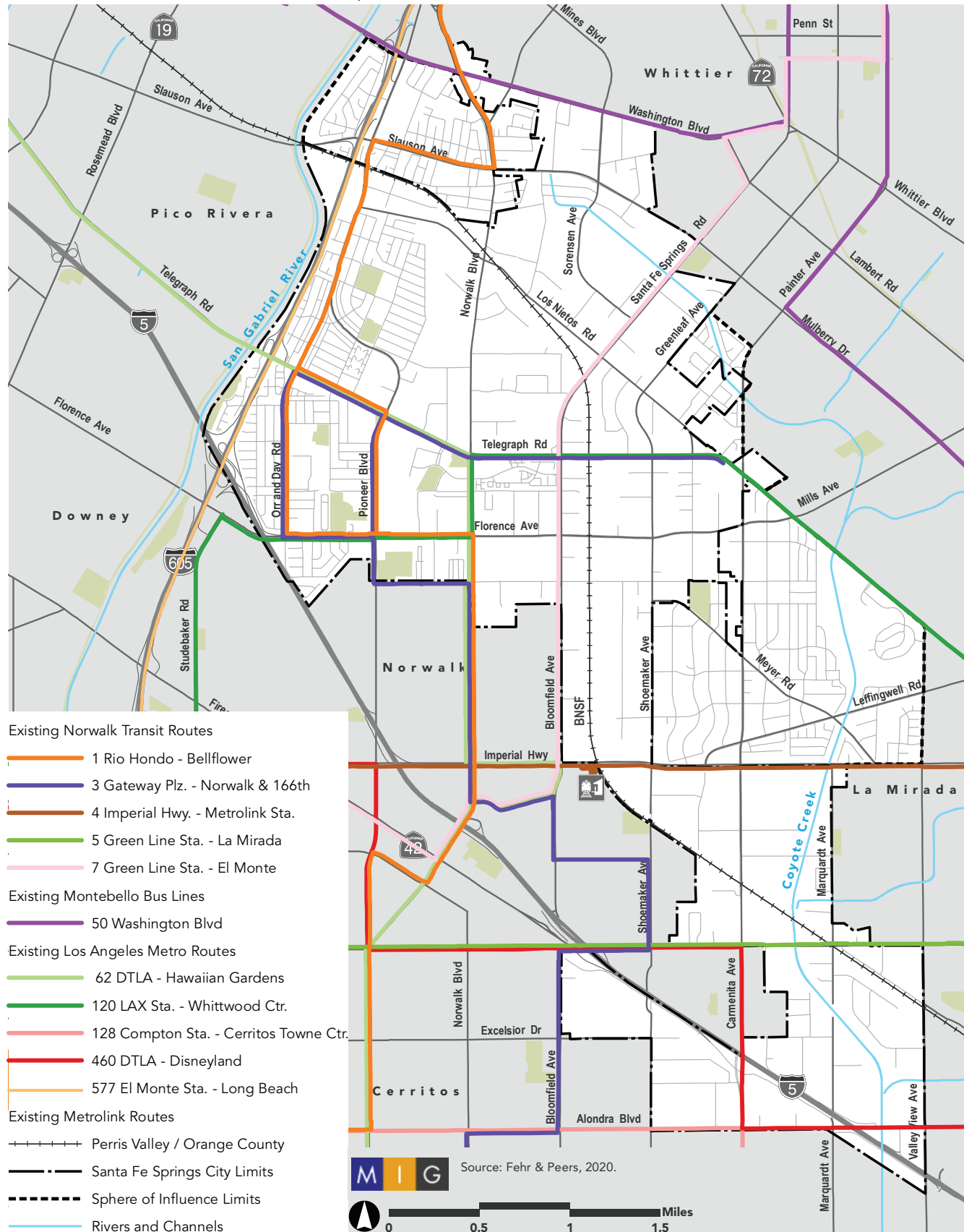
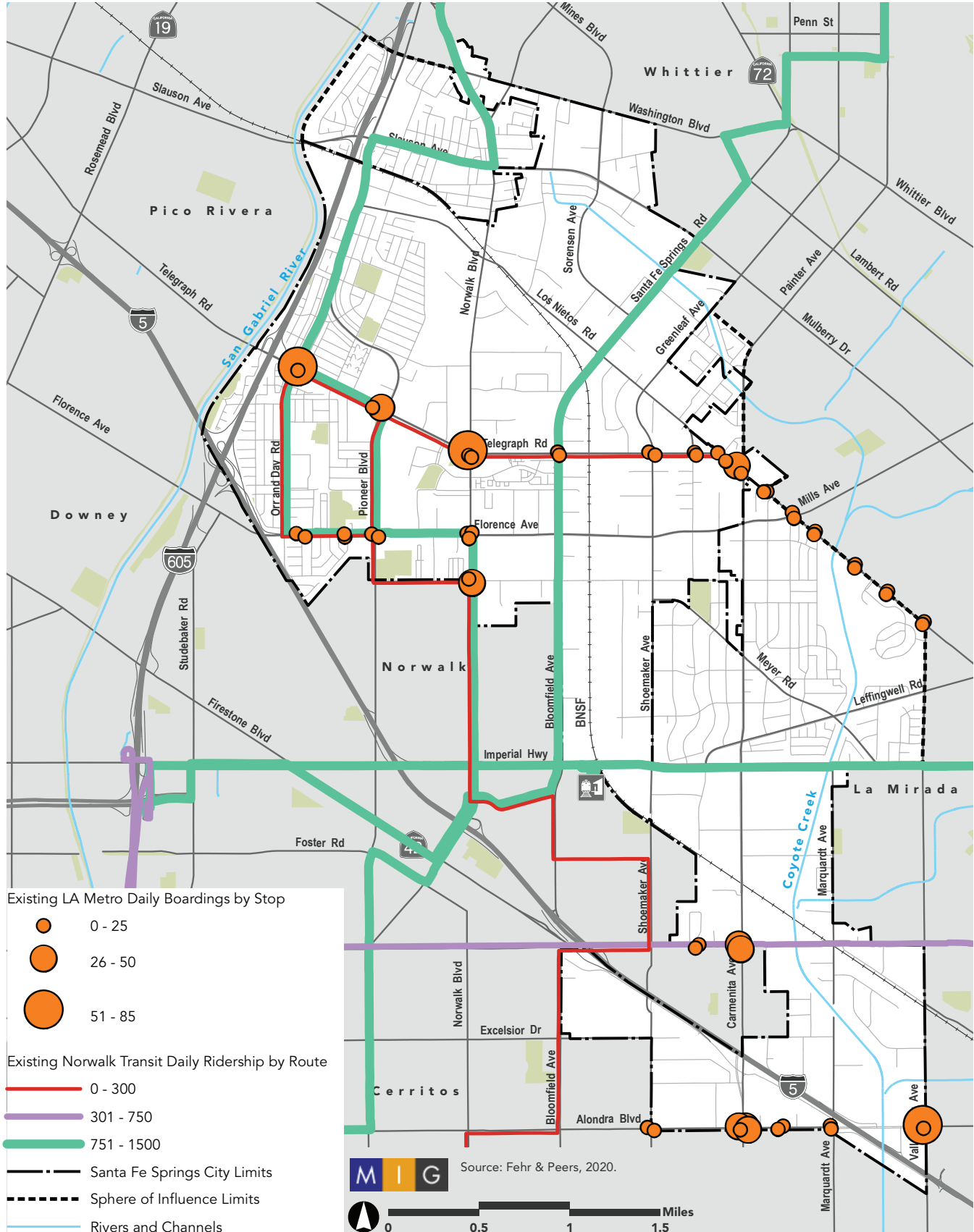


Figure 4-3: Existing Bus Ridership by Stop and Route



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## Freight

Freight and delivery vehicles play a critical role in the local economy, with a large portion of employment in manufacturing, wholesale trade, and construction. A large portion of the central land area includes warehouses and industrial uses, with freight and deliveries using the roadways serving these areas.

## Truck

The key arterials of Telegraph Road, Florence Avenue, Carmenita Road, Santa Fe Springs Road, Washington Boulevard, and Pioneer Boulevard provide freight access to and from I-5, I-605, Whittier Boulevard, and Rosemead Boulevard. According to the draft 2020 California Freight Mobility Plan, I-605 is among the highways carrying the highest truck volumes in the region, averaging more than 25,000 trucks per day in 2016. In Santa Fe Springs, arterial roadways have been designed to accommodate freight movement, with lane widths of 11 to 12 feet and intersections are designed with wide curb radii or deceleration lane to accommodate turning trucks.

## Rail Freight

Both the BNSF Railway and Union Pacific railroads operate in Santa Fe Springs, with a Union Pacific railyard located adjacent to Los Nietos Road and Union Pacific Distribution Services operating the Valla railport on Sorenson Avenue. Rail freight operates within long-established rail easements/rights-of-way that traverse the City, largely at at-grade crossings. Crossings are located primarily at arterial roadways. Figure 4-4 shows roadways and their respective weight restrictions, indicating where certain types of freight are permitted to travel. The at-grade crossings can be a source of congestion, restricting car and truck movement when long freight trains rumble through the City.



**25,000**  
trucks per day  
travel along I-605  
freeway



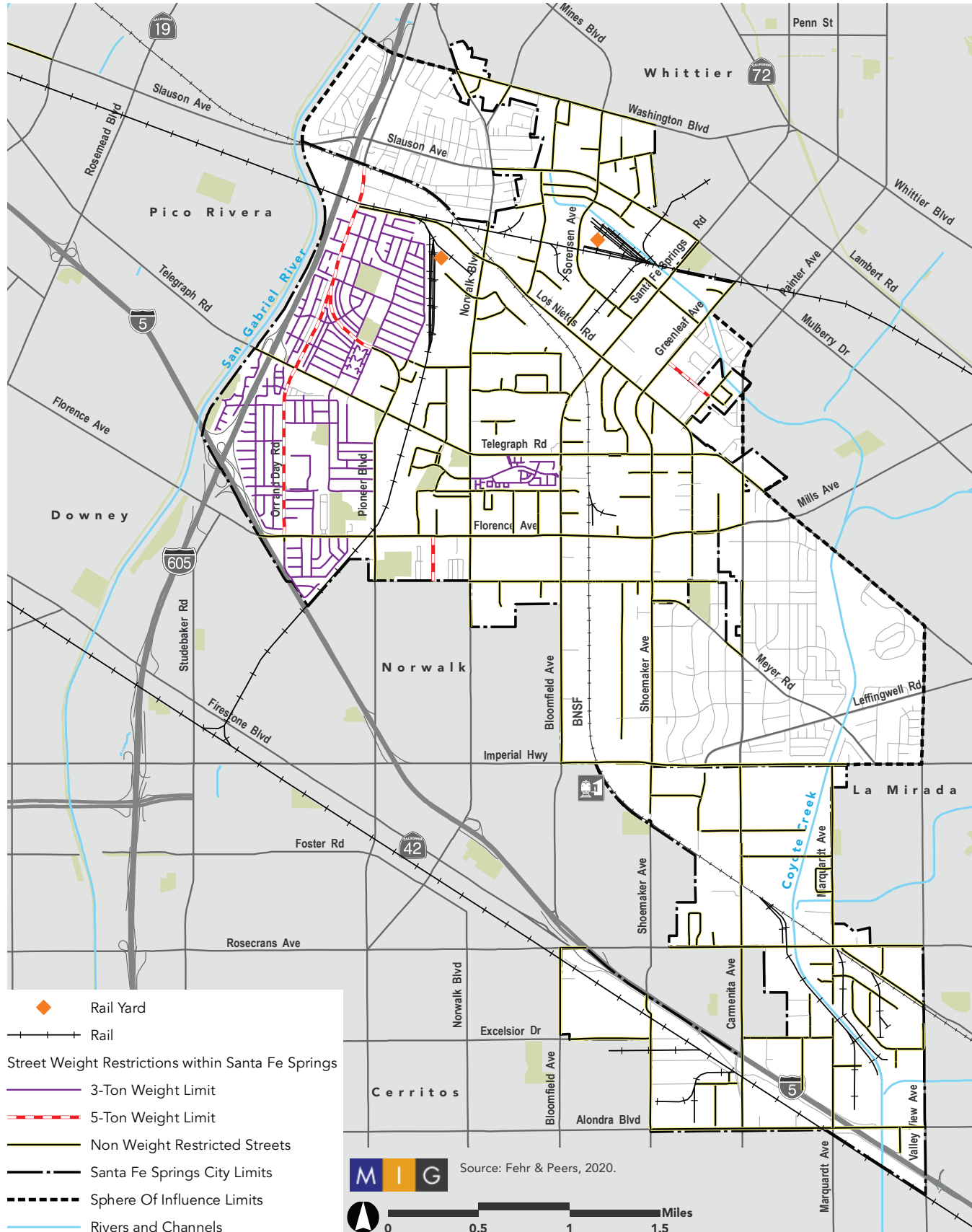
The Union Pacific Distribution Services (UPDS) Valla railport is a dedicated facility for plastics and some dry bulk commodities. The railport consists of 250 rail car spots.



Figure 4-4: Truck Weight Restrictions and Rail Yards



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## Bicycle and Pedestrian Facilities

Santa Fe Springs has sidewalks and crosswalks on most streets. Bicycle movement is accommodated on a developing system of local bikeways that connect to regional facilities.

### Bicycle

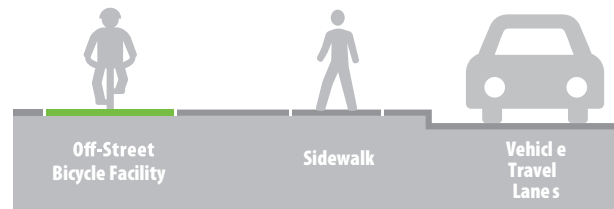
The City is served by several local Class I, II, and III routes (see Figure 4-5), with connections to regional facilities such as the San Gabriel River Mid Trail, a Class I pathway that extends 12 miles between the Whittier Narrows Dam/Legg Lake Recreation Area to South Street in Cerritos and the Lakewood border along the San Gabriel River. The Coyote Creek Bikeway, located in the southeastern part of the City, is a 12-mile Class I paved pathway that runs between cities of Long Beach and La Habra. This trail allows users to travel between cities outside of the roadway right-of-way for commute and recreational trips.

Within Santa Fe Springs, Class II bike lane can be used along Los Nietos Road, Santa Fe Springs Road, Bloomfield Avenue, Imperial Highway, and local roads in the southern portion of the City. The bike lanes generally are striped and located either curbside or adjacent to parking. Gaps exist on parts of Los Nietos Road and Imperial Highway, requiring users to share the roadway with vehicles or ride on the sidewalk if users are uncomfortable sharing roadway space. Other bike facilities include Class III lanes on roadways such as Santa Fe Springs Road, and Greenleaf Avenue that provide signage indicating that the roadway is to be shared with bicycles. Bike routes are also located in the residential areas on Orr and Day Road and Jersey Avenue. Bicycle facilities are shown in Figure 4-6.

Figure 4-5: Bicycle Classifications

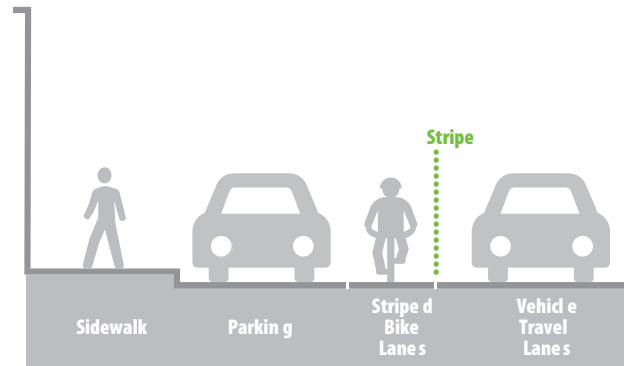
### Class I - Bike Path

Paved areas for cyclists outside of the roadway right-of-way, often located alongside railroad tracks, streams, and roadway crossings are generally limited



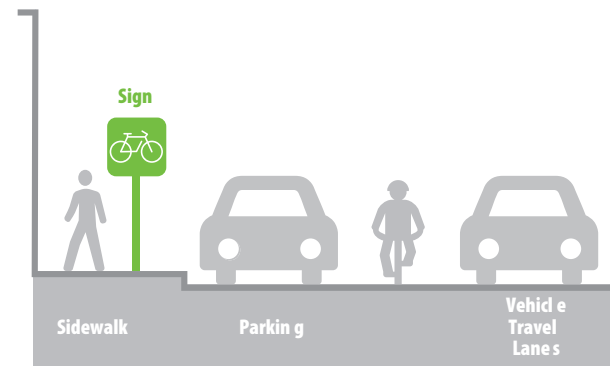
### Class II - Bike Lanes

Streets designed for bicycle travel, which may include a buffer, vertical separation, or lane striping



### Class III - Bike Routes

Installed on roadways where right-of-way is limited, bicycles shared roadway space with vehicles and are generally located on streets with lower speed limits

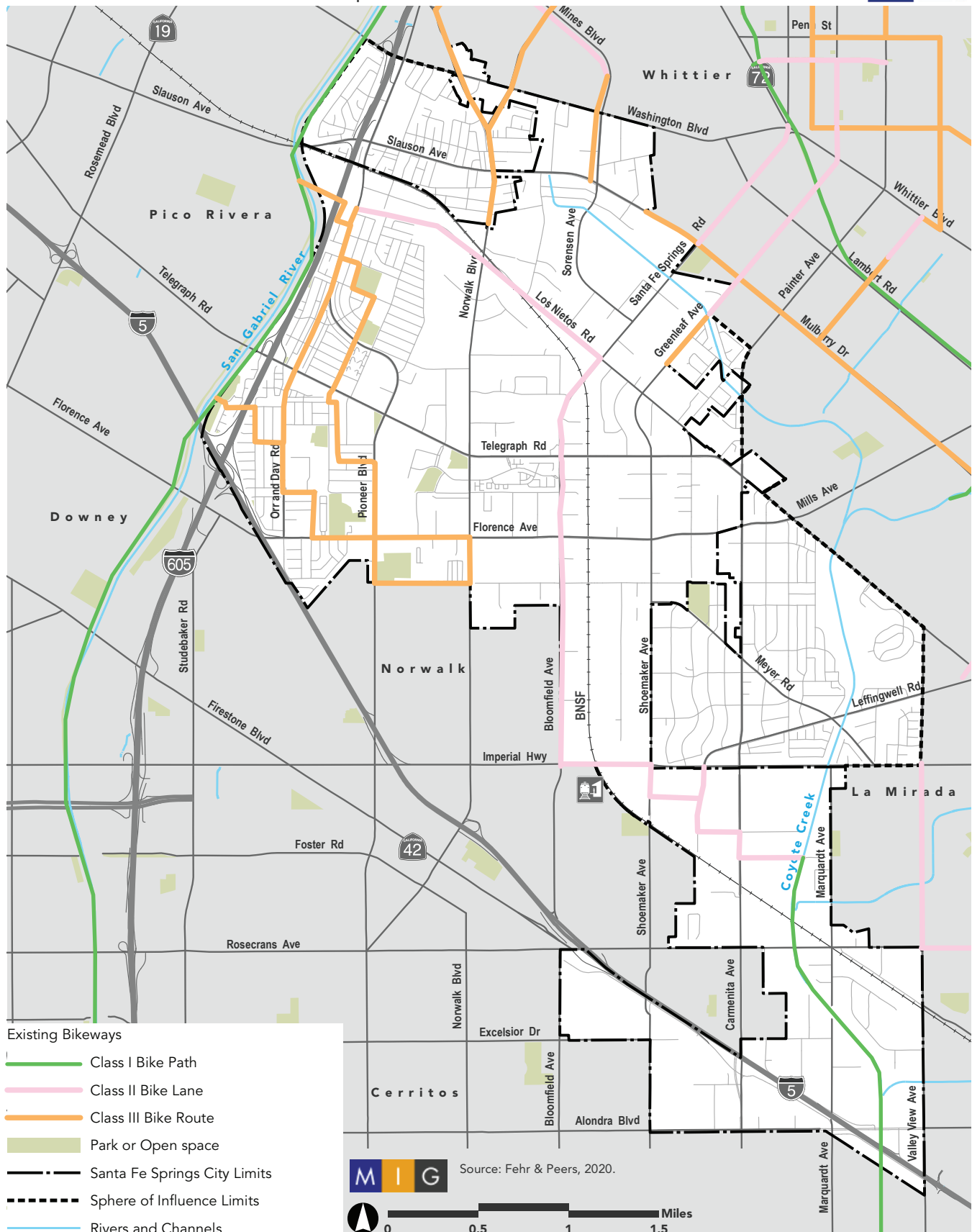


**0.3%**  
of City residents  
bike to work

Figure 4-6: Existing Bicycle Facilities (2020)



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## Pedestrian Accommodations

Pedestrian circulation and access are provided on sidewalks and trails. Sidewalks exist on most roadways, including in residential neighborhoods. However, some sidewalks are missing or only located on one side of the street within many of the industrial and residential areas (see Figure 4-7). Crosswalks are primarily located at signalized intersections, while some are located at uncontrolled intersections. Pedestrian call buttons are present at most of the major signalized intersections. Given the long distance between intersections, mid-block crossings can be hazardous for pedestrians who elect not to walk farther to cross at a signalized intersection. While raised medians provide an opportunity for a two-stage crossing in some locations, these roadways are four to five lanes in width and vehicles may be travelling at high speeds, creating an uncomfortable environment for mid-block crossings.



**1.2%**  
of City residents  
walk to work



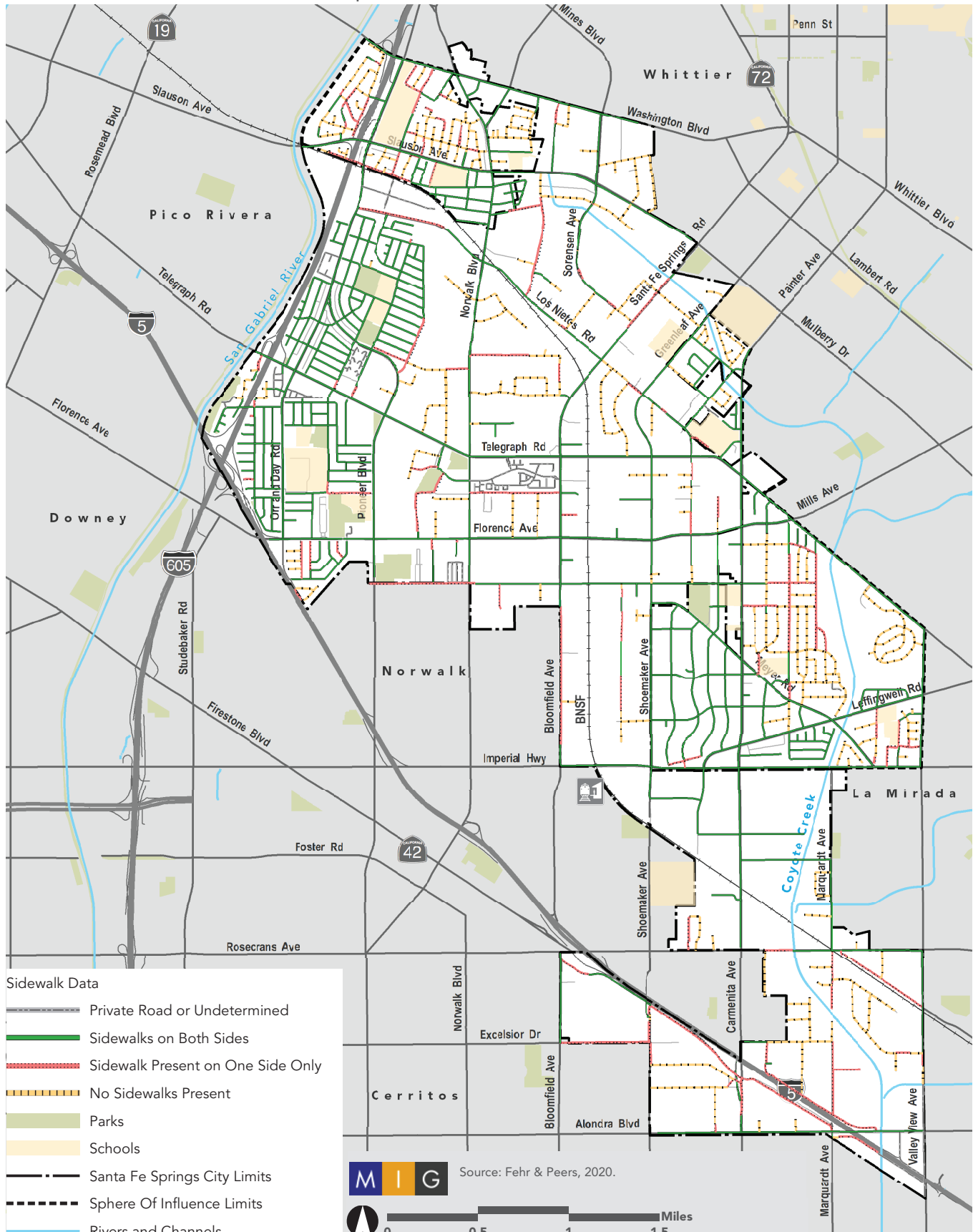
Photo by Leo Jarzomb, SGV Tribune/ SCNG

Santa Fe Springs students from Rancho Santa Gertrudes, Jersey Avenue, Lakeview and Cresson elementary schools join in for International Walk to School Day in 2017

Figure 4-7: Sidewalk Inventory (2020)



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## Vehicle Collisions

The Transportation Injury Mapping System (TIMS) provides details of the collision history in Santa Fe Springs. Table 4-3 includes collisions from 2014 to 2018 and summarizes collisions involving injuries within the City by mode, including fatalities and serious injuries associated with the collisions. Motorcycles are included as a subset of motor vehicles.

In addition to the collisions listed in the Table 4-4, the City has records of collisions that are current through early September 2019. During this period in 2019, there were 572 total collisions, with four involving a fatality. Of those fatalities, two were pedestrians and two were motorcyclists. While the data do not indicate injury severity, 240 of those collisions resulted in at least one injury, with 341 total persons injured. Six collisions involved cyclists, with riding on the wrong side of the road being the most common primary collision factor. Ten collisions involved pedestrians.

Truck collisions made up almost 10% of roadway collisions over the five-year timespan, while collisions involving bicycles and/or pedestrians represent about 6%. Between 2014 and 2018, 32 people died on roadways within the City, with two of those occurring at Norwalk Boulevard and Smith Avenue resulting from a collision involving an animal. Twelve other fatal collisions involved another vehicle, two trains, and two pedestrians. Of the 82 collisions involving serious injuries, 25 involved animals, seven pedestrians, five trains, and the others were a result of hitting another vehicle (33) or another object. The I-605 and Florence Avenue had three severe collisions while another two were at I-605 and Telegraph Road. Figure 4-8 shows collision locations and severity from 2014-2018 for all modes. The map displays the density of collisions by proximity to one another, where locations that have a higher number of collisions are indicated in red and lower in yellow. Figure 4-9 shows truck collisions and Figure 4-10 shows bike and pedestrian collisions.

**Table 4-3: Collisions by Mode**

Type of Collision (2014-2018)	Number of Collisions	Number of Fatalities	Number of Severe Injuries
All Modes	1,981	23	82
Truck Collisions	172	2	7
Bicycle and Motor Vehicle	68	4	7
Pedestrian and Motor Vehicle	47	3	9

Source: Transportation Injury Mapping System (TIMS), 2020.

**Table 4-4: Collisions Involving Injury**

Type of Collision (2014-2018)	Number of Collisions	Bicycle/Pedestrian		Truck		All Collisions	
Period	Time	Number	Percent	Number	Percent	Number	Percent
Early Morning	3:00 AM – 6:00 AM	4	3%	10	6%	101	5%
Morning Commute	6:00AM - 10:00 AM	26	23%	50	29%	401	20%
Mid-Day	10:00 AM – 3:00 PM	37	32%	58	34%	566	29%
Afternoon/Early Evening Commute	3:00 PM – 7:00 PM	23	20%	32	19%	530	27%
Evening	7:00 PM – 10:00 PM	17	15%	6	3%	181	9%
Overnight	10:00 PM – 3:00 AM	8	7%	16	9%	202	10%
Total		115	100%	172	100%	1981	100%

Source: Transportation Injury Mapping System (TIMS), 2020.



Figure 4-8: Collisions for All Modes (2014-2018)



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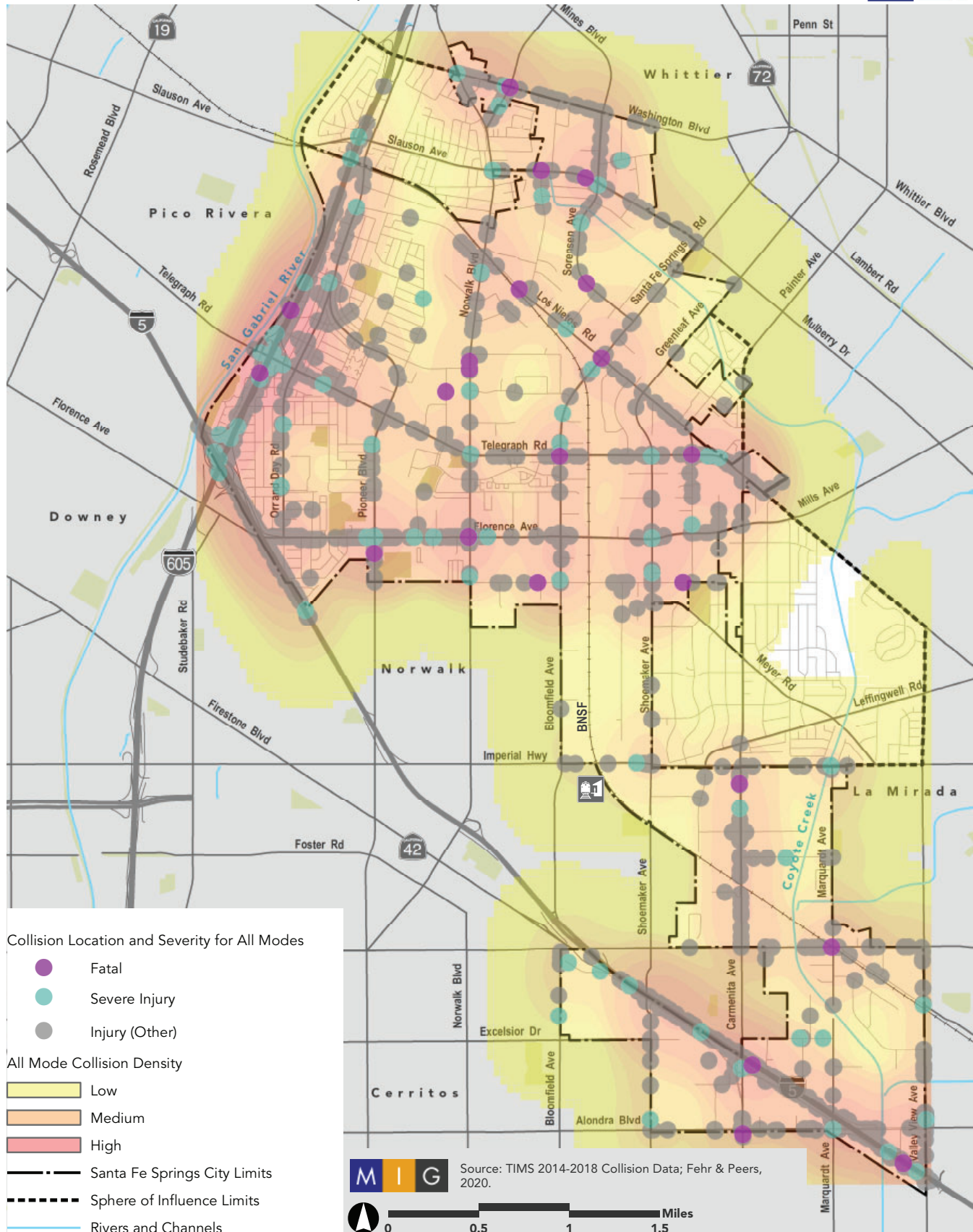




Figure 4-9: Truck Collisions (2014-2018)



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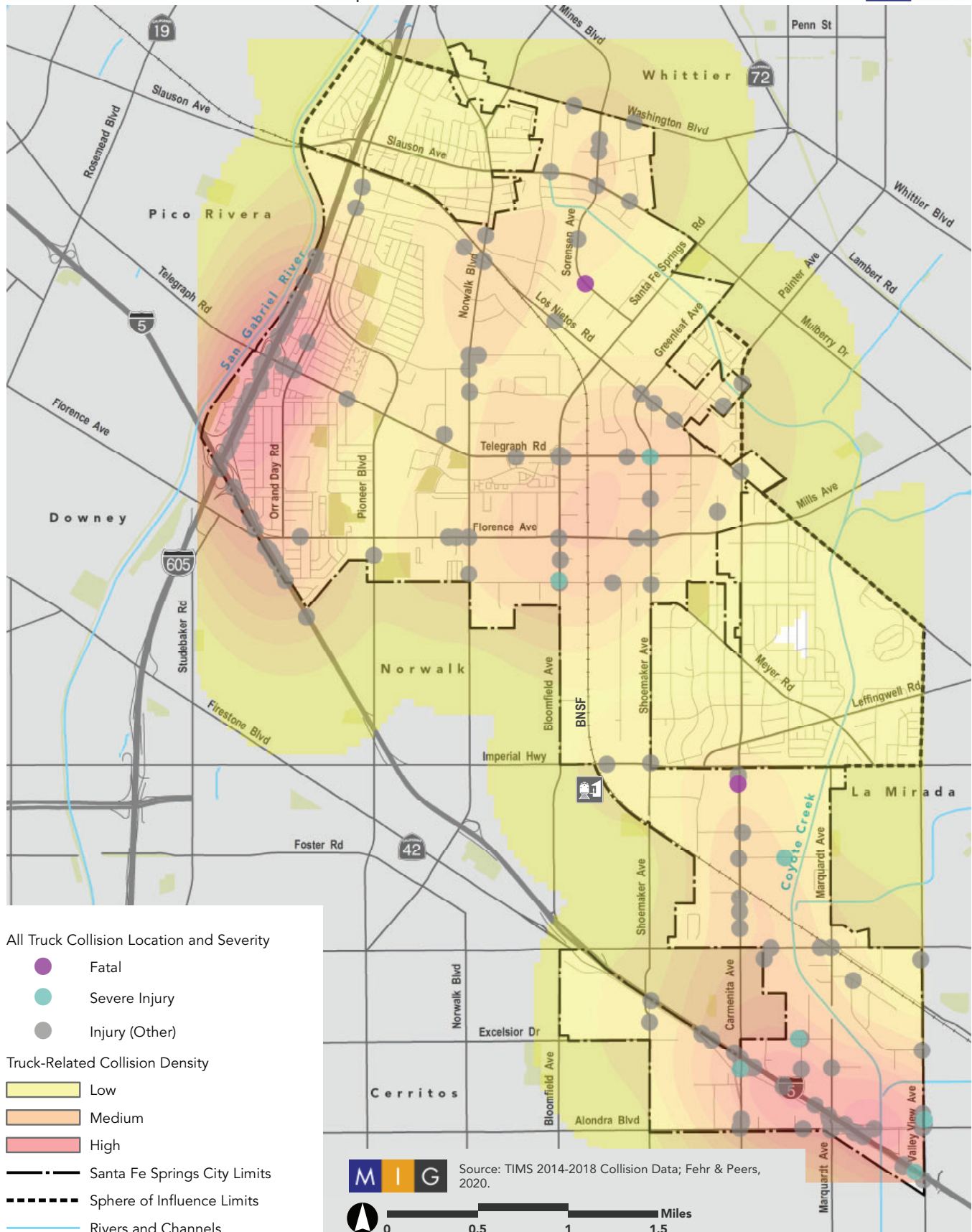
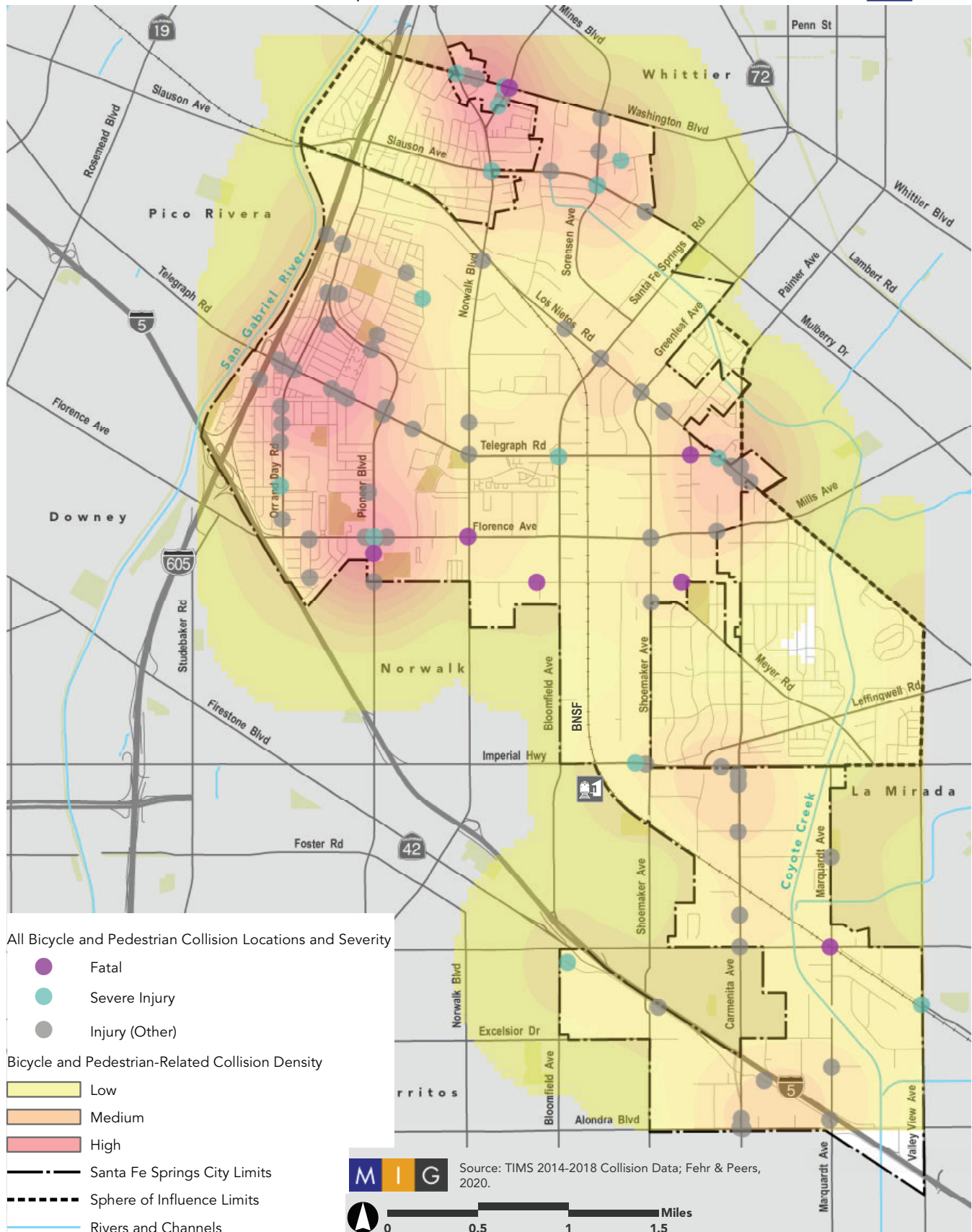


Figure 4-10: Bicycle and Pedestrian Collisions (2014-2018)



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## Vehicle Miles Travelled (VMT) Summary

The 2016 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) travel demand model was used to estimate the number of average weekday vehicle miles travelled (VMT) for City of Santa Fe Springs, within the SCAG region, Los Angeles County, and the County's Gateway Planning Area. The VMT estimates were produced using the standard model outputs from the validated 2016 and 2040 models and by interpolating the data to get 2020 values.

The VMT estimates were calculated using the origin-destination methodology to capture the total VMT generated by light- and medium-duty vehicle trips made by residents and employees within the study area. This methodology, consistent with California's Air Resources Board Regional Targets Advisory Committee (RTAC) protocol, only includes half of the VMT for trips with an origin or destination outside the study area and none of the VMT for trips passing through the study area without stopping. Due to limitations in the SCAG travel model, VMT generated by heavy-duty truck trips or unique land uses (airports, seaports, and external gateways) are not included in these estimates. The methodology is consistent for each city and county and provides an appropriate comparison across different study area boundaries.

The aggregation of VMT data from traffic analysis zone (TAZ) boundaries to city boundaries was determined using an automated GIS process that assigned each TAZ to a single city or unincorporated area based solely on geographic area. Since TAZ boundaries are not entirely consistent with city boundaries, this additional step was necessary to approximate citywide VMT estimates. Population estimates were taken directly from the travel demand model and were aggregated using the same methodology as the VMT estimates.

The VMT has been aggregated to three trip purpose categories: home-based work (HBW), home-based other (HBO), and non-home based (NHB). HBW trips represent travel between a residential area and a place of employment; these are traditional commute trips. HBO trips include the remainder of all trips that start

or end at a residence but are not related to work; these include trips for shopping, running errands, or recreation. Finally, NHB trips represent all other trips that occur between two non-residential locations. The VMT from HBW and HBO trips provides a starting point to estimate residential VMT and office VMT. Combining the three trip purposes provides an estimate of total VMT for a study area. Draft guidance from the State on implementing Senate Bill 743 recommends evaluating VMT based on land use, using residential VMT per capita, office VMT per employee, and total VMT to evaluate residential, office, and retail projects, respectively. However, VMT estimates consistent with the RTAC protocol for air quality analysis are not appropriate to use for an SB 743 analysis.

Table 4-5 provides a summary of Total VMT Service Population, Home-Based VMT per capita (based on population), and Home-Based Work VMT per Employee (based on total employment) for the City of Santa Fe Springs, the SCAG region, Los Angeles County, and the Gateway Planning Area. The average 2020 weekday per capita VMT is 43.0 miles, 16.0 miles, and 19.0 miles for total VMT, HBO, and HBW, respectively for the City of Santa Fe Springs. By comparison, Santa Fe Springs's HBO and HBW average weekday trip lengths per capita are greater than trips within SCAG, LA County, and the Gateway Planning Area. The results are the same when comparing 2040 to 2020 VMT totals. While VMT in Santa Fe Springs is higher than other jurisdictions in 2016, 2020, and 2040, VMT is following a similar downward trend between 2016 and 2040.

**Table 4-5: Existing (2020) VMT by Land Use**

Jurisdiction	Residential VMT per Capita	Office VMT per Employee
City of Santa Fe Springs	16.0	19.0
Gateway Planning Area	12.9	17.3
Los Angeles County	13.4	17.2
SCAG Region	14.9	17.7

Source: SCAG Model, 2020.



Table 4-6 displays the VMT for the same four jurisdictions according to land use rather than trip type. The average weekday per capita VMT for residential land uses in Santa Fe Springs is 16.0 miles, which is greater than the per capita VMT for residential land uses in the SCAG, Los Angeles County, and the Gateway Planning Area. Regarding office land uses, the per capita VMT in Santa Fe Springs, 19 miles is also higher than the other jurisdictions, while VMT for each of the other areas are comparable to one another at around 17 miles per worker.

**Table 4-6: Comparison of VMT by Trip Type**

VMT Metrics		Santa Fe Springs/SCAG Region		
		2016	2020	2040
<b>Total VMT</b>				
SCAG	Average Regional VMT Per Service Population	35.0	34.3	31.3
LA County	Average County VMT per Service Population	32.5	31.9	28.8
Gateway Planning Area	Average Planning Area VMT per Service Population	32.3	31.9	30.2
Santa Fe Springs	Average City VMT per Service Population	43.2	43.0	42.0
<b>Home Based Other VMT</b>				
SCAG	Average Regional VMT Per Capita	15.3	14.9	13.0
LA County	Average County VMT per Capita	13.8	13.4	11.6
Gateway Planning Area	Average Planning Area VMT per Capita	13.1	12.9	11.8
Santa Fe Springs	Average City Home Based VMT per Service Population	16.4	16.0	14.2
<b>Home Based Work VMT</b>				
SCAG	Average Regional VMT Per Worker	18.6	17.7	13.9
LA County	Average County VMT per Worker	17.9	17.2	13.3
Gateway Planning Area	Average Planning Area VMT per Worker	18.0	17.3	14.1
Santa Fe Springs	Average City VMT per Worker	19.7	19.0	15.8

Source: SCAG Model, 2020 estimates based on 201 RTP assumptions.



## Key Considerations

- Opportunities to expand the bicycle network to enhance connections between the San Gabriel River Trail and Coyote Creek Bikeway to Santa Fe Springs' neighborhoods, key employment areas, and parks.
- Opportunities to promote the use of protected and buffered bicycle facilities to encourage all ages and abilities to bicycle for recreation and commuting.
- A Complete Street Policy that can make streetscapes more inviting and safer for all modes of transportation.
- Collisions on City streets are of concern to all users.
- The ability to provide static and real-time information about all transit routes in the City in one central location to improve rider experience and make riding transit more attractive.
- Transit service in the City is provided by several different transit agencies; cooperation among providers would best serve users.
- Freight is a major industry within the City, and streets need to maintain functionality for freight while additional non-motorized modes share the roadway
- East Transit Corridor Phase 2 Light Rail Transit (also known as Gold Line Eastside Extension) extension is planned connects East Los Angeles to Santa Fe Springs via Washington Boulevard, and includes a stop at Norwalk Boulevard and a terminus at Lambert Road.
- The East Transit Corridor Phase 2 extension was originally anticipated to be complete by 2035, but Metro's Twenty-Eight by '28 Initiative identifies the Gold Line Eastside Extension to Santa Fe Springs and Whittier with a 2028 target completion date.
- Need to establish financing program and/or fund that is sufficient to pay for the ongoing maintenance of city streets.



## INFRASTRUCTURE

This section addresses how water and sewer service and flood control infrastructure are provided through public utilities and contract services.

### Water Services

Five water providers serve the Planning Area, as shown in Figure 4-11.

#### Water Districts

##### City of Santa Fe Springs Water Utility Authority

The City of Santa Fe Springs Water Utility Authority is the retail water supplier that provides service for most of the City, covering approximately 90% of the land area within the City. The service area is approximately 85% commercial and industrial, and 15% residential. The City's historical water supply sources include local groundwater pumped from City wells, treated groundwater through the Water Quality Protection Program, treated imported water purchased from Metropolitan Water District through Central Basin Municipal Water District (CBMWD), and recycled water supplies provided by CBMWD.



**16,000**  
customers are served by Santa Fe Springs Water Utility Authority (SFSWUA)

##### Golden State Water Company

Golden State Water Company is a public utility water company that serves primarily residential customers in unincorporated portions east of the City (within the Sphere of Influence).



**6,369**  
acre feet of water is supplied by various sources to to serve SFSWUA customers

##### Orchard Dale Water District

The Orchard Dale Water District primarily serves residential customers in unincorporated neighborhoods east of the City. Most water is drawn from aquifers in the San Gabriel Main Basin and Coastal Plain of the Los Angeles Central Basin.

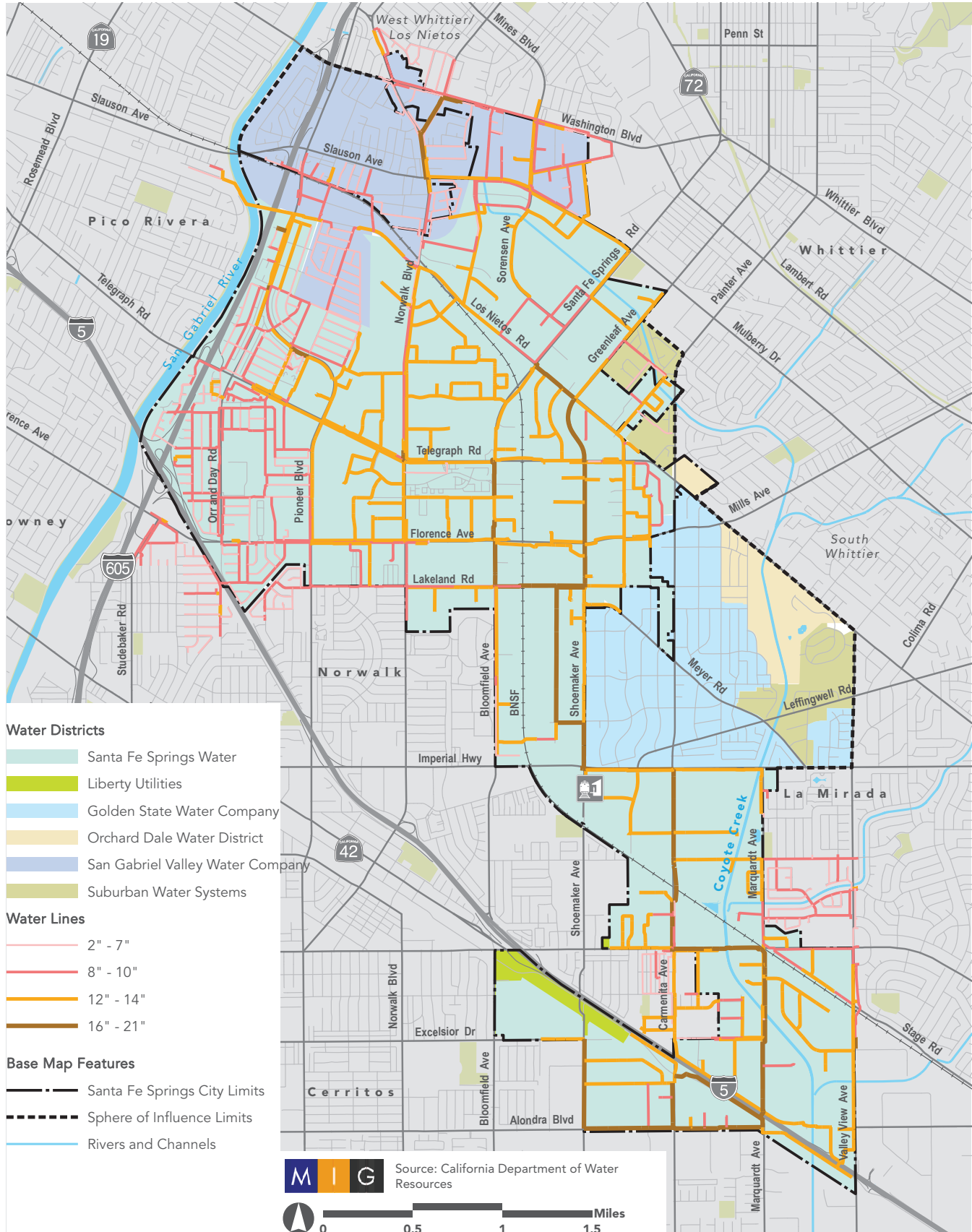
##### San Gabriel Valley Water Company

The San Gabriel Valley Water Company is an investor-owned water utility that provides water service to the northern section of the City and adjacent unincorporated areas.

Figure 4-11: Water Facilities



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### Suburban Water Systems

Suburban Water Systems is a public utility water company that provides water service primarily to residential customers in unincorporated areas east of the City. Most water is drawn from groundwater through the City of Whittier from active deep wells located in the Whittier Narrows area.

Service providers serving Santa Fe Springs and surrounding unincorporated areas also receive groundwater from the Central Basin Water Quality Protection Program facility located in the Central Basin, as well as surface water distributed by Metropolitan Water District of Southern California sourced from the Colorado River and the State Water Project in Northern California.

Recycled water is used within the City's service area for landscape irrigation at parks, schools, athletic fields, roadway medians, and business complexes, as well as for industrial purposes such as cooling tower use.

Since the majority of the Planning Area is built out, the water service providers do not anticipate significant population growth and demand increases. The City's 2015 Urban Water Management Plan indicates sufficient water supply for projections through 2040. Planned infrastructure improvements include a water treatment facility to treat iron, manganese, hydrogen sulfite, and color to reintroduce a City well that has not been in use since 2014 due to contaminants. Planned capacity improvements within Santa Fe Springs are primarily to update existing infrastructure and maintain adequate fire flows. To promote water conservation, the City encourages replacing existing lawn with drought-tolerant landscaping and other modes of water conservation.

### Groundwater

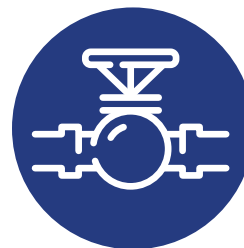
Santa Fe Springs is located over the Central Basin groundwater basin. On its north, the Central Basin is bounded by the Hollywood Basin, and that boundary runs through the City of Los Angeles. The remainder of the northern boundary of Central Basin extends along the Merced Hills, across Whittier Narrows, and then along Puente Hills. The Central Basin consists of four sections: the Los Angeles Forebay, the Montebello Forebay, the

Whittier Area, and the Pressure Area. The California Department of Water Resources does not identify the Central Basin as being in overdraft (as of 2020).

The City owns three wells: Wells No. 1, 2, and 12. Well No. 1 was placed on standby in 2014 as a result of poor water quality. Well No. 2 has been on standby since 2008 due to water quality problems. Well No. 12 was drilled in 2013 and has been inactive since 2013 due to water quality issues. Wells No. 2 and No. 12 have production capacities of 1,900 and 2,000 gallons per minute, respectively. Water treatment facilities are planned for Wells No. 2 and No. 12. The City produced groundwater from Central Basin from 2009 to 2014 from Well No. 1. The City did not pump any groundwater in 2015 from its wells.

### Wastewater

The local wastewater collection system is owned and operated by Los Angeles County Sanitation Districts (LACSD) and maintained by Consolidated Sewer Maintenance District (CSMD). The wastewater collection system consists of approximately 84 miles of sewer mains providing wastewater pipelines to homes, businesses, and institutions (Figure 4-12). Wastewater collected from businesses and residences within the City is treated at LACSD's Los Coyotes Water Reclamation Plant (LCWRP) and Long Beach Water Reclamation Plant (LBWRP); after treatment, the wastewater is recycled for further use or discharged into the San Gabriel River.

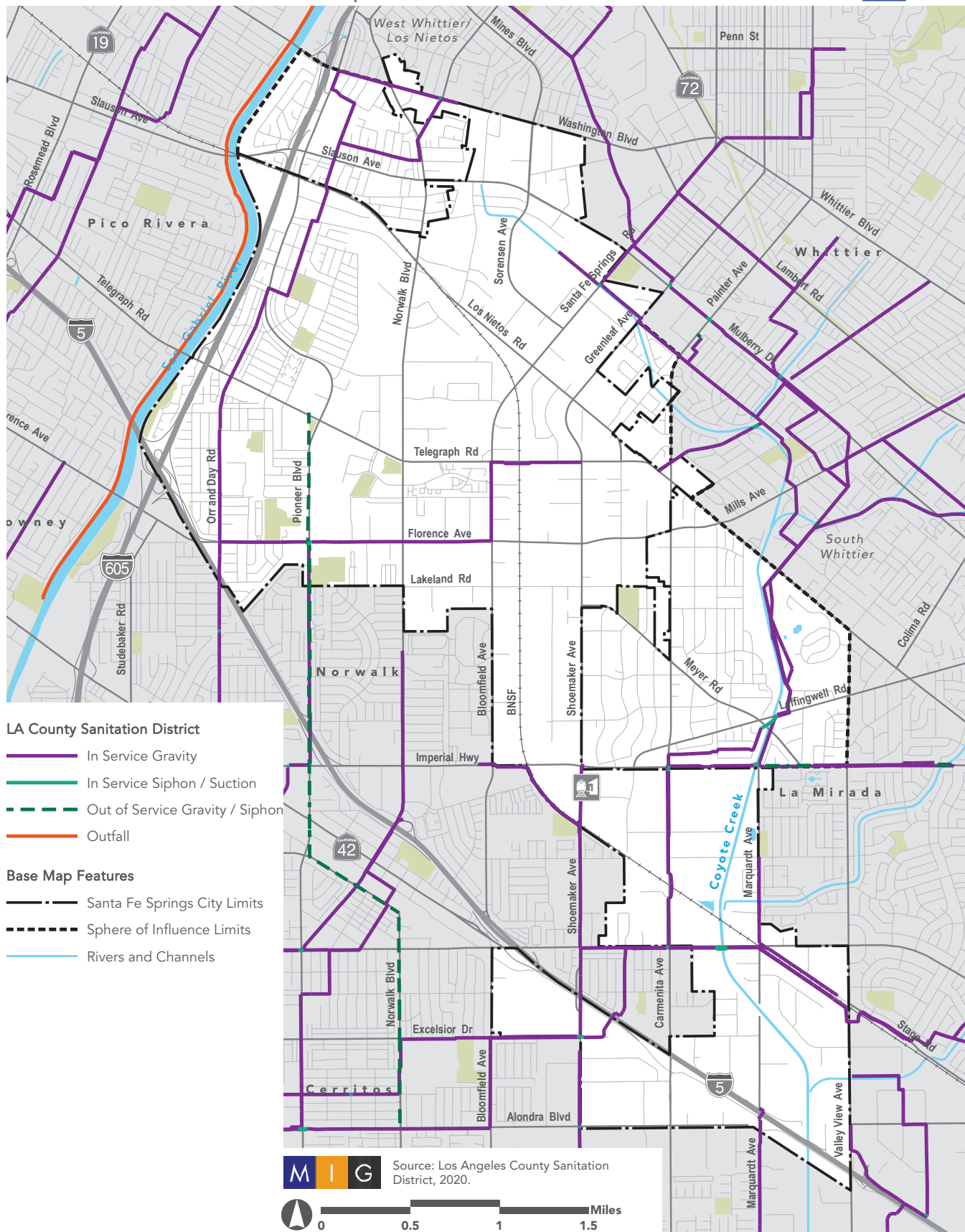


**84**  
miles of pipeline  
makes up  
Santa Fe Springs  
local sewer mains

Figure 4-12: Wastewater Facilities



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## Stormwater

The storm drain system in Santa Fe Springs is maintained by the Los Angeles County Flood Control District (LACFCD), funnels stormwater through a network of mains and catch basins until it is eventually discharged in the Pacific Ocean via the San Gabriel River and its tributaries, such as Coyote Creek (Figure 4-13). High concentrations of impervious surfaces in intensive urban areas, like Santa Fe Springs and surrounding vicinities, has contributed to poor water quality from polluted stormwater runoff. Key sources of contamination include sediment, nutrients, pesticides, metals, oil and grease, and pathogens. The San Gabriel River is impaired by pollutants, including selenium and metals, such as copper, lead, and zinc. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials, such as galvanized steel, that are exposed to rain.

Santa Fe Springs, along with 12 other local cities and the LAFCD, formed the Lower San Gabriel River Watershed Management Group. The group attained a Los Angeles County National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit in 2013 and created a Watershed Management Program in 2015 to implement watershed control measures and reduce discharge of stormwater pollutants. In accordance with the Watershed Management Program, Santa Fe Springs set a final compliance milestone to capture and treat 2.1 acre-feet of stormwater in the Coyote Creek Watershed and 4.9 acre-feet of stormwater in the San Gabriel River Watershed by 2026.

## National Pollutant Discharge Elimination System (NPDES) Compliance

The National Pollutant Discharge Elimination System (NPDES) permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created in 1972 by the Clean Water Act, the NPDES permit program is authorized to state governments by EPA to perform many permitting, administrative, and enforcement aspects of the program. To comply with the NPDES permit and reduce stormwater pollution, the City has implemented the following measures detailed below.

## Gateway Prop 84 Project

- Plan Review and Implementation of Construction and Post-Construction Water Quality Best Management Practices (BMPs) for Development and Redevelopment
- Low Impact Development (LID)
- Regenerative Street Sweeping
- Participation in the Gateway Region of Los Angeles LID BMP Program (installation of two tree box filters on the eastside of Norwalk Boulevard, south of Hawkins street, and on Shoemaker Avenue, north of Sandoval Street)

## Best Management Practice for Water Pollution

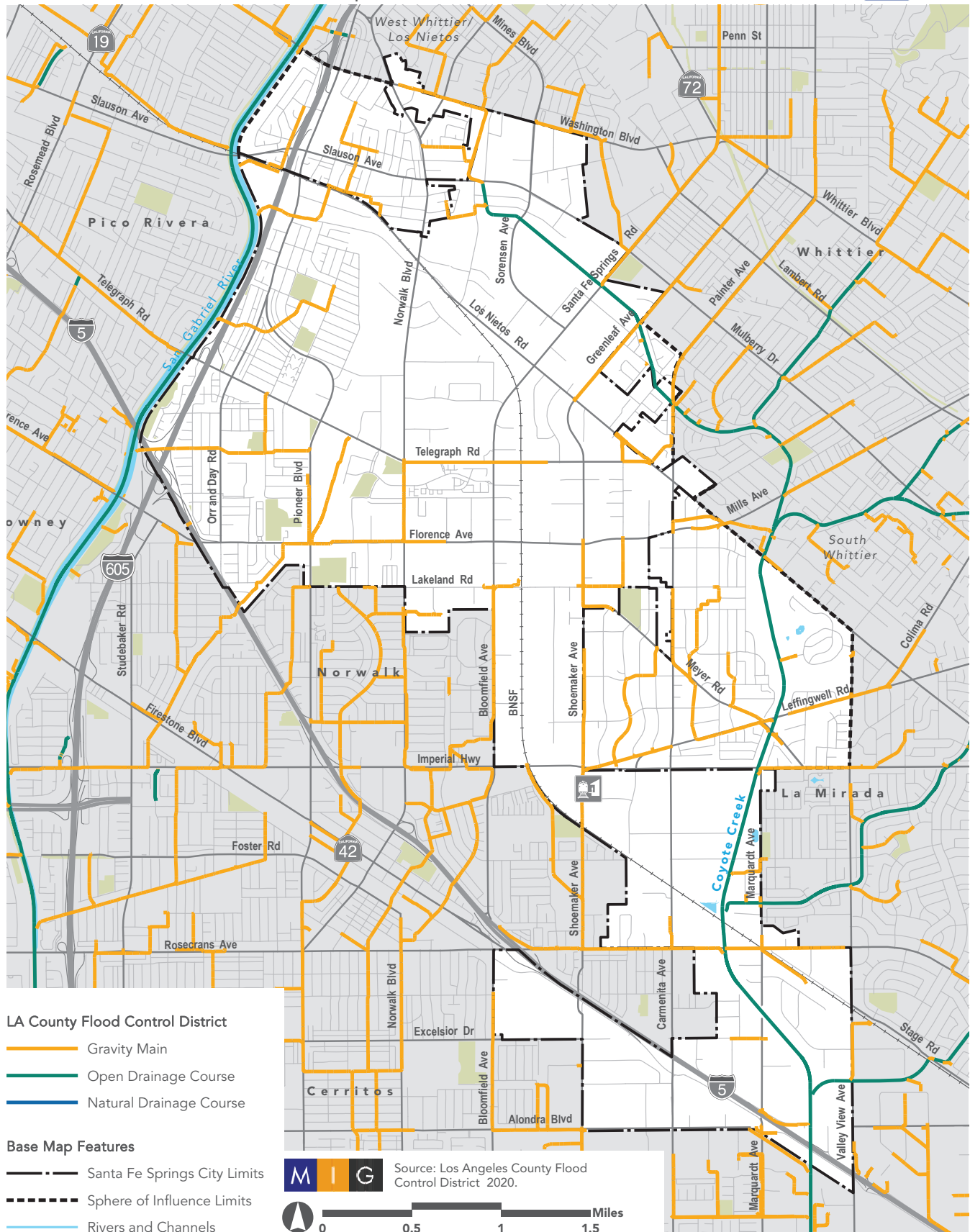
Best management practices (BMPs) is a term used to describe a type of water pollution control. Stormwater management BMPs are control measures taken to mitigate changes to both quantity and quality of urban runoff caused through changes to land use. Generally, BMPs focus on water quality problems caused by increased impervious surfaces from land development. BMPs are designed to reduce stormwater volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, and filtration or biological and chemical actions. Types of BMPs includes infiltration basin, bioretention, constructed wetlands, cistern, bioswales, green roof, and porous pavement. The City is evaluating opportunities to install regional water quality BMPs within the Coyote Creek Watershed, utility corridors, parks, and schools in the City.



Figure 4-13: Stormwater Facilities



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## Key Considerations

- The City can reduce water usage and help to restore historic groundwater levels by applying Low Impact Development (LID) principles to maximize aquifer recharge of treated stormwater (see stormwater opportunities).
- Santa Fe Springs has increased its recycled water use substantially in the last five years. The City can continue this trend by identifying potential recycled water users and expanding the recycled water distribution network.
- Santa Fe Springs is looking to increase residential and commercial development within City limits. Proposed land use changes should be compared with existing infrastructure to anticipate future capacity need and potential service demand.
- The City is working to reduce stormwater pollutants through LID installations and evaluation of several regional water quality BMPs. Pursuing additional LID installations and committing to the proposed BMPs opportunities would reduce stormwater pollutant discharge and help achieve set milestones in the Lower San Gabriel Watershed Management Program.
- Due to limited space within existing rights-of-way, water quality BMPs should serve multiple functions such as traffic calming, tree planting, and beautification.
- Due to the amount of area water retention facilities can occupy within parks and open spaces, water quality BMPs should serve multiple functions for both recreation and stormwater management.
- The proximity to the San Gabriel River, Coyote Creek, and other storm drainage channels can serve as an asset for water quality BMPs projects.
- There may be potential to identify areas for local water storage and infiltration.



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## CHAPTER 5: PUBLIC SAFETY AND HAZARDS

### EXISTING CONDITIONS TECHNICAL REPORT



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## **CHAPTER 5: PUBLIC SAFETY AND HAZARDS**

### EXISTING CONDITIONS TECHNICAL REPORT

INTRODUCTION

EMERGENCY SERVICES

NATURAL HAZARDS

HAZARDOUS MATERIALS

CLIMATE CHANGE



## INTRODUCTION

This chapter describes conditions related to public safety and hazards. Topics include emergency services, natural hazards, hazardous materials, and climate change.

## EMERGENCY SERVICES

The Santa Fe Springs Department of Fire and Rescue and the Whittier Police Department (under contract to the City) provide essential emergency services for the City of Santa Fe Springs. The Los Angeles County Fire Department provides services for the unincorporated communities within the City's Sphere of Influence, including unincorporated Los Nietos and West Whittier.

The City's Natural Hazards Mitigation Plan (NHMP), adopted in 2004, facilitates ongoing planning and coordination among government agencies, businesses, and residents around emergency preparedness. The NHMP establishes processes for implementing prevention action items, incorporating mitigation measures in parallel planning efforts, and maintaining an active and relevant plan dictating the City's emergency response to natural disasters. The Santa Fe Springs Hazard Mitigation Working Group is responsible for coordinating implementation of these action items.

Santa Fe Springs' Safe Neighborhood Team (SNT) Program coordinates community volunteers to operate emergency preparedness and neighborhood watch services, and has been recognized by the State of California, Office of Emergency Services and the Federal Emergency Management Agency for excellence in emergency management.

## Emergency Preparedness

Recognizing the cost of damage from natural disasters, the City developed the Natural Hazards Mitigation Plan in 2004 to facilitate careful planning and collaboration among public agencies, private sector organizations, and residents. The NHMP provides a set of action items to reduce risk from natural hazards through education and outreach programs that foster partnerships. The NHMP also identifies preventative activities such as implementation of land use policies that restrict and control development in high-risk areas, such as locations of businesses storing or using hazardous materials.

The 2004 NHMP details the formal process to ensure that it remains active and relevant. This includes a schedule for monitoring and evaluating the NHMP annually and producing a revision every five years, a framework for integrating public participation throughout the plan maintenance process, and a description of how the City government will incorporate mitigation strategies into parallel planning efforts such as the City's General Plan, Capital Improvement Plans, and Building and Safety Codes. The City's Hazard Mitigation Working Group is responsible for coordinating the implementation of action items. The Director of Police Services serves as the convener to facilitate Working Group meetings.

The City's SNT Program coordinates community volunteers to operate emergency preparedness and neighborhood watch services. Efforts are led by volunteer block Captains and Area Coordinators. SNT meetings provide opportunities for the community to meet members of the Santa Fe Springs Policing team, receive crime trends information, participate in activities, and share concerns. Training around disaster preparedness, medical triage, emergency drills, radio procedures, crime prevention, and crime awareness are offered every other month.



## Police Services

The City of Santa Fe Springs contracts with the Whittier Police Department for law enforcement services. The Department operates from a Police Services Center on Telegraph Road in Santa Fe Springs. While a portion of the City, including its western residential area, is located within a two-mile drive to this Police Services Center, much of the City is located further away. The Whittier Police Department is responsible for the management of all law enforcement services within the City of Santa Fe Springs, with the exception of jailing and dispatch. The City is divided into three law enforcement areas. Each area has a dedicated sergeant and a team of police officers and Public Safety Officers (PSO).

The Santa Fe Springs Policing team consists of Whittier and Santa Fe Springs personnel. The team operates a patrol division, detective bureau, records bureau, Problem-Oriented Policing Team, school resources officer, traffic enforcement, tactical team, and a special occurrence response team (SORT). A team of PSO's help patrol officers with daily tasks such as report taking and traffic control.

Law enforcement services include:

- Community based, problem-oriented policing
- Police officer neighborhood patrol and crime solving
- Detectives and specialized gang/narcotic and problem policing unit
- Traffic and parking enforcement
- Foot, bicycle, and motorcycle patrols
- Canine officer
- Crime scene investigation
- Investigative support units in arson, homicide, robbery, forgery, fraud, sex crimes, and child abuse
- Crime identification and analysis teams and task forces
- Court, district attorney, parole, and probation department coordination



Photo credit: Whittier Daily News

Whittier police high-five Santa Fe Springs' resident at "Coffee with a Cop" event in 2017.





### Family and Youth Intervention Program

Under Police Services, the City operates the Santa Fe Springs Family and Youth Intervention Program (FYIP), which is intended to positively engage families and their children ages seven through 17 who are experiencing relationship challenges and/or adverse behavior negatively impacting their school and home environment. Within this larger program is the Parent Project, which manages a youth development group, community services, diversity program, and School Attendance Review Team. These programs are described below:

- **Parent Project.** The Parent Program offers a 10-week parenting series that teaches parents how to manage their children's behavior, prevent or intervene in alcohol or drug use, improve school attendance, and performance and access resources.
- **Youth Development/Group.** The Youth Development/Group connects families and youth with an educational case manager who assists participants in developing holistic, individual case plans, coordinating integrated services, and managing care and follow-up services.
- **Community Service.** The Community Service component of FYIP assigns youth to supervised community projects that teach responsibility and civic commitment in addition to fulfilling court mandates. Referrals are collected from parents, schools, community agencies, City programs, law enforcement, and youth.
- **Diversity Program/Chavez Event.** The Diversity Program/Chavez Event focuses on educating students and promoting cultural competency through speakers, workshops, and cultural programs.
- **School Attendance Review Team.** The School Attendance Review Team (SART) was established through a cooperative agreement between the City of Santa Fe Springs, the Little Lake School District, Los Nietos School District, Whittier Union High School District, and South Whittier School District to intervene and redirect student behavior that impedes progress in school. SART acts as

an intermediary between schools, the School Attendance Review Board, and the juvenile court, and facilitates the implementation of community, school, and home solutions before students are referred to the review board, District Attorney, or juvenile court.

### Code Enforcement and Animal Control

In addition to law enforcement services, the Department of Police Services provides code enforcement and animal control services and manages community programs. The Code Enforcement Division enforces the City's entire Municipal Code. Frequent enforcement items include hazardous property conditions, garage conversions, illegal businesses operating from residences, overgrown vegetation, and illegal land uses, among others. The Code Enforcement Division issues a Notice of Violation, or a warning, to the property owners or tenants of each property with violations, along with a prescribed date to correct the violations. The Division issues an Administrative Citation with fines for violations that continue past the prescribed date.

The City's licensing program and the Southeast Area Animal Control Authority (SEAACA) protect people and animals and promote human animal care and treatment through education and enforcement. Dogs must be licensed yearly at the Police Services Center. Owners must show proof of current vaccinations, present a sterility certificate, and pay a licensing fee. The SEAACA assists in capturing wildlife that is sick, injured, or posing a threat to public safety. Community members are directed to report incidents of coyote aggression and attacks to the SEAACA.



## Crime Data

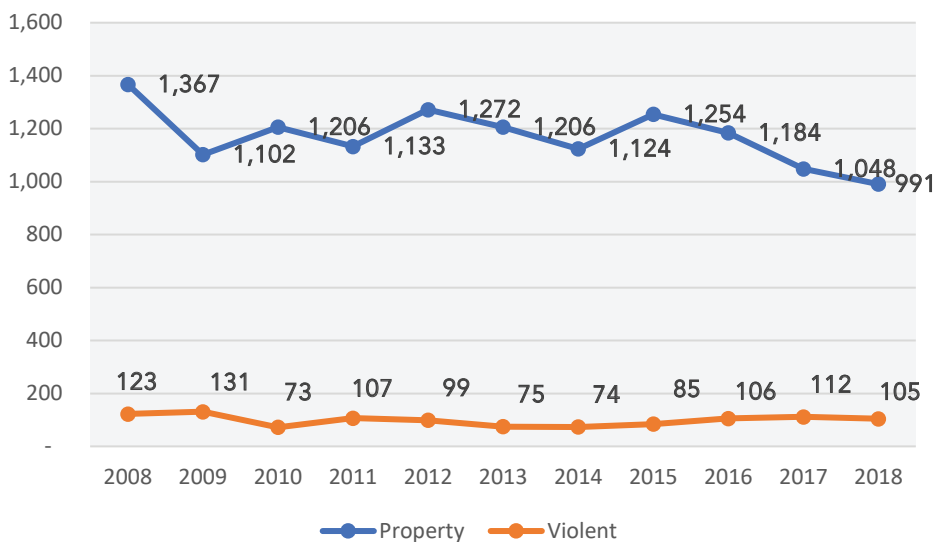
Crime rates in the City have fallen dramatically since the 1990s. Even so, violent and property crime rates are higher relative to those across California and the United States more broadly. In 2018, the latest year for which crime data are available, 74 violent crimes and 1,198 property crimes were reported to the United States Department of Justice Federal Bureau of Investigation (FBI), which translates to 428.9 violent crimes and 6,514.4 property crimes per 100,000 people. The overall crime rate in 2018 was 1,198 violent and property crimes per 100,000 people.

**Table 5-1. Reported Annual Crime in Santa Fe Springs (2018)**

Crime Types (2018)	Santa Fe Springs		California per 100,000 Persons	National per 100,000 Persons
	Reported Incidents	per 100,000 Persons		
Violent Crime	105	571.9	447.4	375.7
Property Crime	991	5,397.3	2,380.4	2,596.1
Total	1,096	5,969.1	--	--

Source: FBI Uniform Crime Reporting Program, 2019, (reporting data: 2018).

**Figure 5-1: Violent and Property Crimes by Year (2008 to 2018)**



Source: FBI Uniform Crime Reporting Program, 2019, (reporting data: 2008 to 2018).



## Fire Services

The Santa Fe Springs Department of Fire & Rescue (Fire Department) provides emergency services to residents and businesses across the City of Santa Fe Springs, covering approximately nine square miles. Four City fire stations are located within Santa Fe Springs. All of the station were built prior to the 1960s, with the headquarters built in the 1970s. Most of the Planning Area is located within a two-mile drive to one or more of these City fire stations (see Figure 5-1). The Los Angeles County Fire Department (LACFD) provides services to the unincorporated communities within the City's Sphere of Influence. LACFD Station 25 serves the community of Los Nietos, and LACFD Station 96 serves the community of West Whittier.

The City's Fire Department manages three Divisions: Operations, Fire Prevention, and Environmental Protection. The Department's Operations Division provides fire suppression, emergency medical services (EMS), hazardous materials response, and urban search and rescue. The Fire Prevention Division provides plan check, inspection, and public education services. This Division is also responsible for determining fire causes and investigating suspicious fires. The Environmental Protection Division acts as the Certified Unified Program Agency (CUPA). CUPA files required information online

in accordance with Assembly Bill 2286, including facility data related to hazardous material regulatory activities, chemical inventories, underground and aboveground storage tanks, and hazardous waste generation.

Wildfire hazards are nonexistent in the City. Urban fire risks can occur from accidents associated with methane gas release, oil production facilities, industrial or manufacturing facilities, underground pipelines, and power transmission lines.

## Urban Search and Rescue

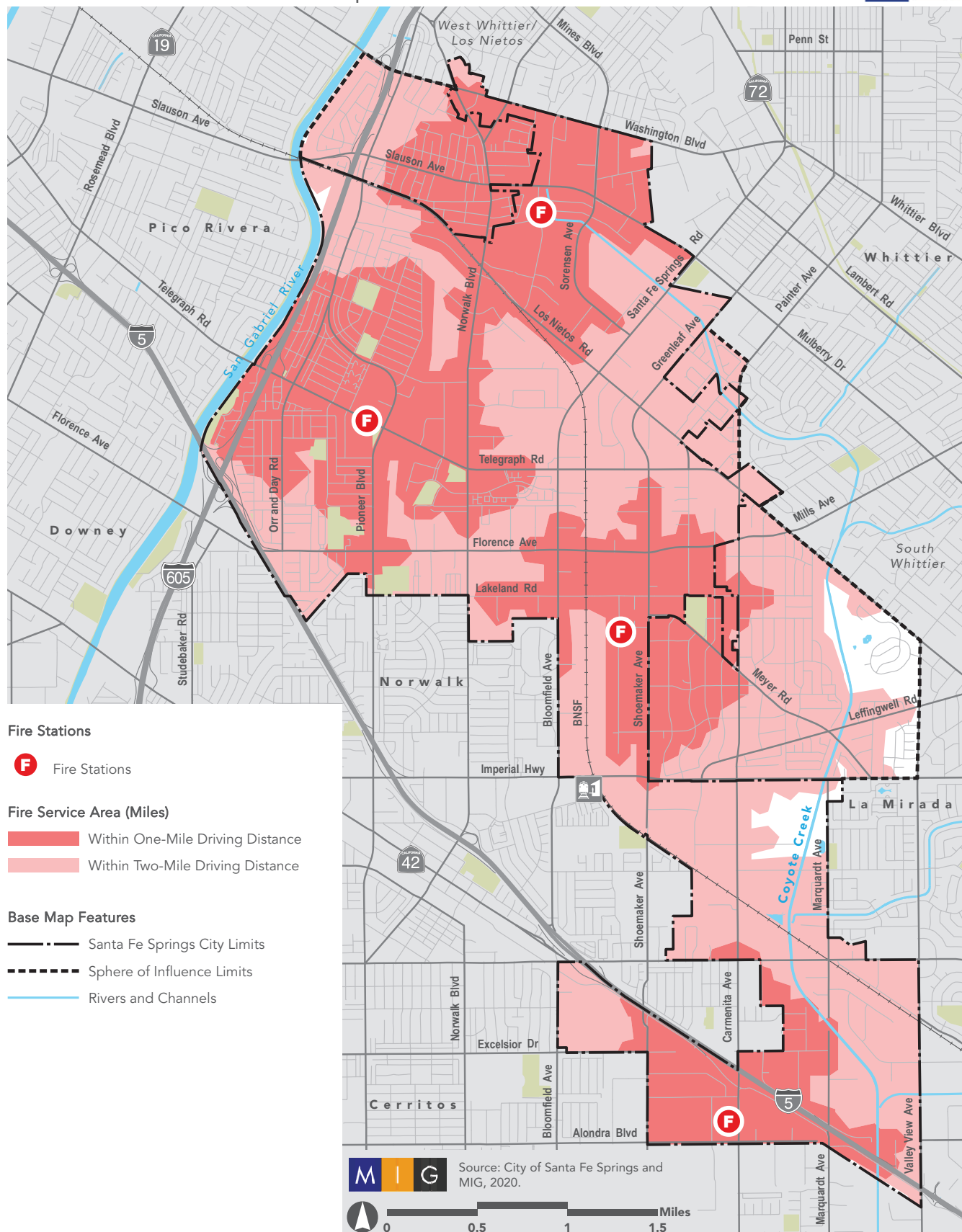
Some of the City's firefighters have received special training for urban search and rescue, which involves the location, rescue, and initial medical stabilization of victims trapped in confined spaces. Structural collapse is the most common cause of victims being trapped, but victims may also be trapped in transportation accidents, industrial structures, and collapsed trenches. Urban search and rescue staff are needed for a variety of emergencies or disasters such as earthquakes, storms, floods, dam failures, technological accidents, terrorist activities, and hazardous materials releases. The Fire Department is a member of the Office of Emergency Services Regional Urban Search and Rescue Task Force 2.



*Santa Fe Springs Fire Department Urban Search and Rescue vehicle*

# Figure 5-2: Fire Station Service Areas by Distance

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## Hazardous Materials Response

The City Fire Department also manages a Hazardous Materials Response (HazMat) Team made up of members from the Operations and Environmental Protection Divisions. The HazMat Team members have all been trained as Hazardous Materials Specialists, which requires over 200 hours of initial training. Team members maintain competency by participating in continuing education activities each month. The Fire Department meets the equipment standards of a Type II HazMat Team as set forth by California FIRESCOPE. These standards include requirements for field testing, air monitoring, sampling, radiation monitoring and detection, chemical protective clothing, decontamination, communication, and respiratory protection.

The HazMat Team responds to hazardous materials incidents of varying levels of complexity, from small spills of vehicle fluids, paint products, or other household consumer products to large releases of industrial chemicals that pose major hazard to life, environment, and property. The HazMat Team also responds to unknown materials that are abandoned, illegally dumped, or spilled, as well as intentional acts using hazardous materials.

## Emergency Medical Services

In addition to its usual firefighting duties, the Santa Fe Springs Fire Department employs firefighters who are highly trained in delivering Emergency Medical Services. The minimum level of training is Emergency Medical Technician (EMT). This training ensures that the City's firefighters can perform functions such as CPR, basic airway procedures, splinting, and emergency childbirth. The Department's EMT's can begin basic life-saving measures and provide assistance to paramedics, who provide the next level of emergency care. Paramedics carry out advanced life support procedures, including administering medications, establishing intravenous lines, cardiac monitoring, advanced airway procedures, and recognition of serious medical and trauma emergencies through a physical assessment.



## Key Considerations

Santa Fe Springs' built environment and robust industrial sector create unique considerations related to the provision of emergency services and emergency preparedness. Key considerations include the following:

- Maintaining emergency preparedness efforts and the City's ability to respond to a wide range of emergencies, particularly industrial hazards.
- Scaling the City's emergency services to reflect increased development and the influx of new residents and businesses.
- Sustaining efforts to support decreasing crime rates.
- City fire stations were built in the 1960s and 1970s as they have reached 50 to 60 years in age.
- Urban fires risks associated with methane gas release, oil production facilities, industrial or manufacturing facilities, underground pipelines, and power transmission lines.



## NATURAL HAZARDS

Santa Fe Springs is subject to flooding, earthquakes, earthquake-induced hazards such as ground shaking and liquefaction, and pollution from hazardous materials. Hazard vulnerability assessment requires the analysis of many factors, including population and property distribution, event frequency, susceptibility, infrastructure, and disaster preparedness. The City understands that comprehensive planning addresses both hazard mitigation and public safety through community preparedness.

### Seismic Hazards

The City of Santa Fe Springs has experienced earthquakes in the past, although none have caused enough damage to warrant a local disaster. The most notable earthquake affecting the City was the October 1, 1987 Whittier Narrows Earthquake (magnitude 5.9) and the October 4, 1987 aftershock (magnitude 5.5). The City had no fatalities and minimal structural damage.

### Faults

Seismicity is a well-known hazard of Southern California. The region straddles the Earth's two largest tectonic plates: the northwest-moving Pacific plate and southwest-trending North American plate. Movement along this boundary has resulted in many earthquakes from the region's numerous faults.

Two active blind thrust faults—the Puente Hills and the Elysian Park thrust systems—cross diagonally through central Santa Fe Springs. Blind thrust faults are shallow-dipping reverse faults that do not rupture the surface and cannot be detected visually. The Elysian Park and Puente Hills faults could generate substantial ground shaking in an earthquake, causing damage to infrastructure, including roadways and bridges, dams, and essential facilities such as fire and police stations, emergency preparedness centers, and structures containing chemicals for manufacturing and storage.

The Norwalk fault, a concealed pre-Quaternary fault, runs parallel to the I-5 freeway along the southern portion of the City (Figure 5-3).

Nearby significant fault lines include the Whittier fault (approximately three miles northeast), the Newport-Inglewood-Rose Canyon fault (approximately eight miles southwest), and the San Andreas fault (approximately 35 miles northeast). These faults have the capability of producing large earthquakes of magnitudes 7.2, 7.4, and 8.0, respectively, that could affect Santa Fe Springs.

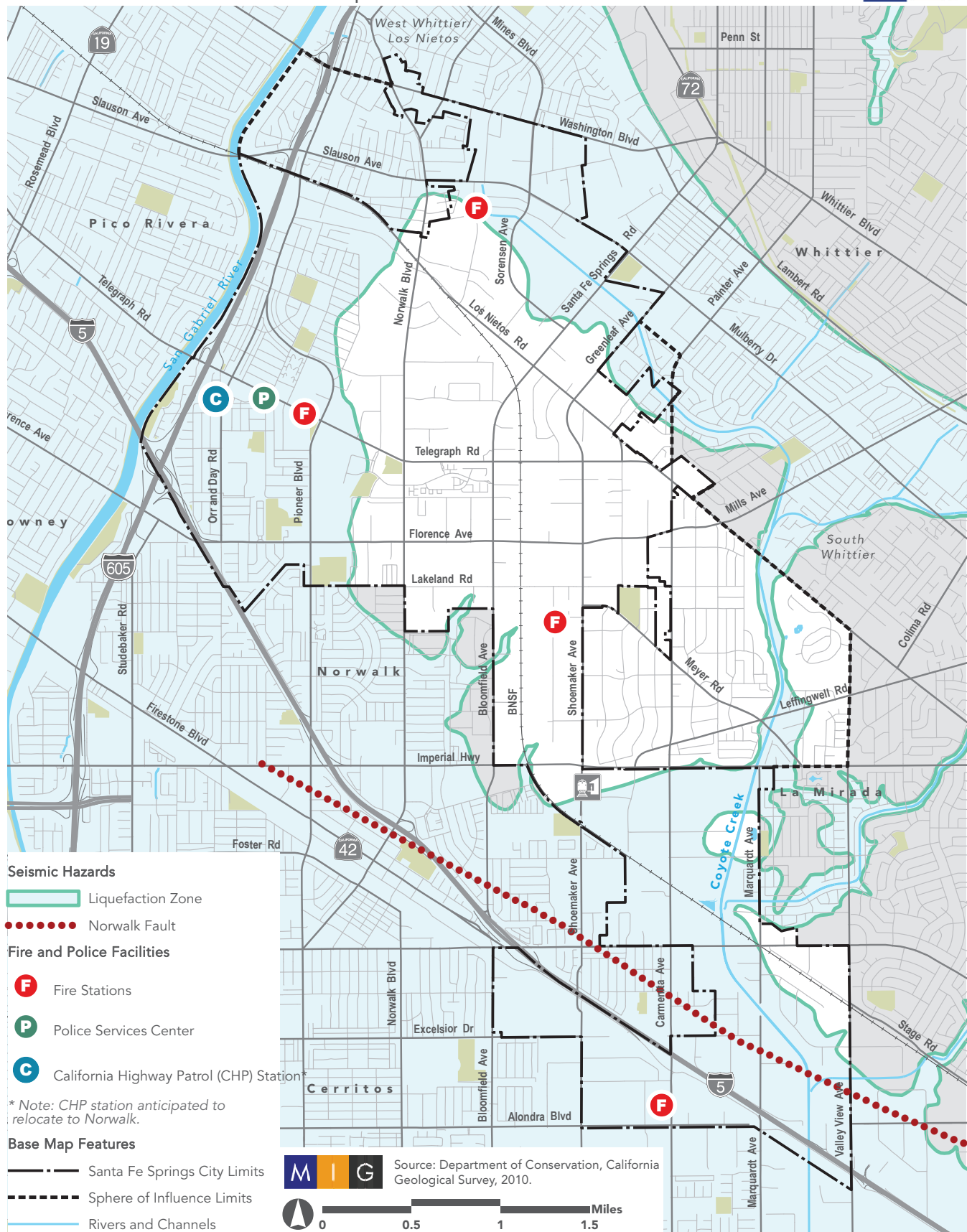
### Liquefaction

Liquefaction occurs when water-saturated sediment temporarily loses strength and acts as a fluid. Liquefaction-induced ground failure historically has been a major cause of earthquake damage in Southern California. Liquefaction potential and severity depends on several factors, including soil and slope conditions, proximity to fault, earthquake magnitude, and type of earthquake. In Santa Fe Springs, liquefaction hazards are present along the drainage channels on the periphery of the City, as well as residential and industrial areas in the north, residential neighborhoods west of Norwalk Boulevard, and primarily industrial areas south of Imperial Highway (Figure 5-3). Although possible, liquefaction is unlikely to occur due to the water table depth of more than 50 feet throughout the City.

Figure 5-3: Seismic Hazards



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## Flooding and Dam Inundation

Most of Santa Fe Springs faces minimal flood hazards, as outlined by the Federal Emergency Management Agency (FEMA) hazard map, shown in Figure 5-4. The City is adjacent to the San Gabriel River, which is susceptible to flooding events; however, the 100-year flood event zone surrounding the river remains west of I-605, outside the City limit. Risk of flooding from a 500-year flood event occurs in a few small pockets of the City, with the largest area in the City's northern industrial district. No additional flood hazards are mapped by FEMA, including a citywide absence of 100-year flood zones, which borders the City along the San Gabriel River.

Urbanization of a watershed changes the hydrologic system. Heavy rainfall in the City can collect and rapidly move across impervious concrete and asphalt surfaces, concentrating the flow in unnatural channels such as streets, creating swift moving rivers. Additional localized flooding can occur when storm drains back up with vegetative debris.

Inundation from the Hoover Reservoir and Whittier Narrows Dam located five miles northwest of Santa Fe Springs poses the greatest threat from dam inundation for the City (Figure 5-4). The dam was built as a flood risk management and water conservation project in 1957 and creates a reservoir capacity of 9.75 million gallons of water. In 2016, the U.S. Army Corps of Engineers determined the dam is structurally unsafe and poses a potentially catastrophic risk to the communities along the San Gabriel River floodplain. In addition, engineers found that the mile-long earthen structure could fail if water were to flow over its crest or if seepage eroded the sandy soil underneath. Measures to permanently address these issues are currently being developed and evaluated (as of 2020). Inundation from dam failure would mostly affect the commercial, industrial, and residential areas of the City west of Norwalk Boulevard.



## Key Considerations

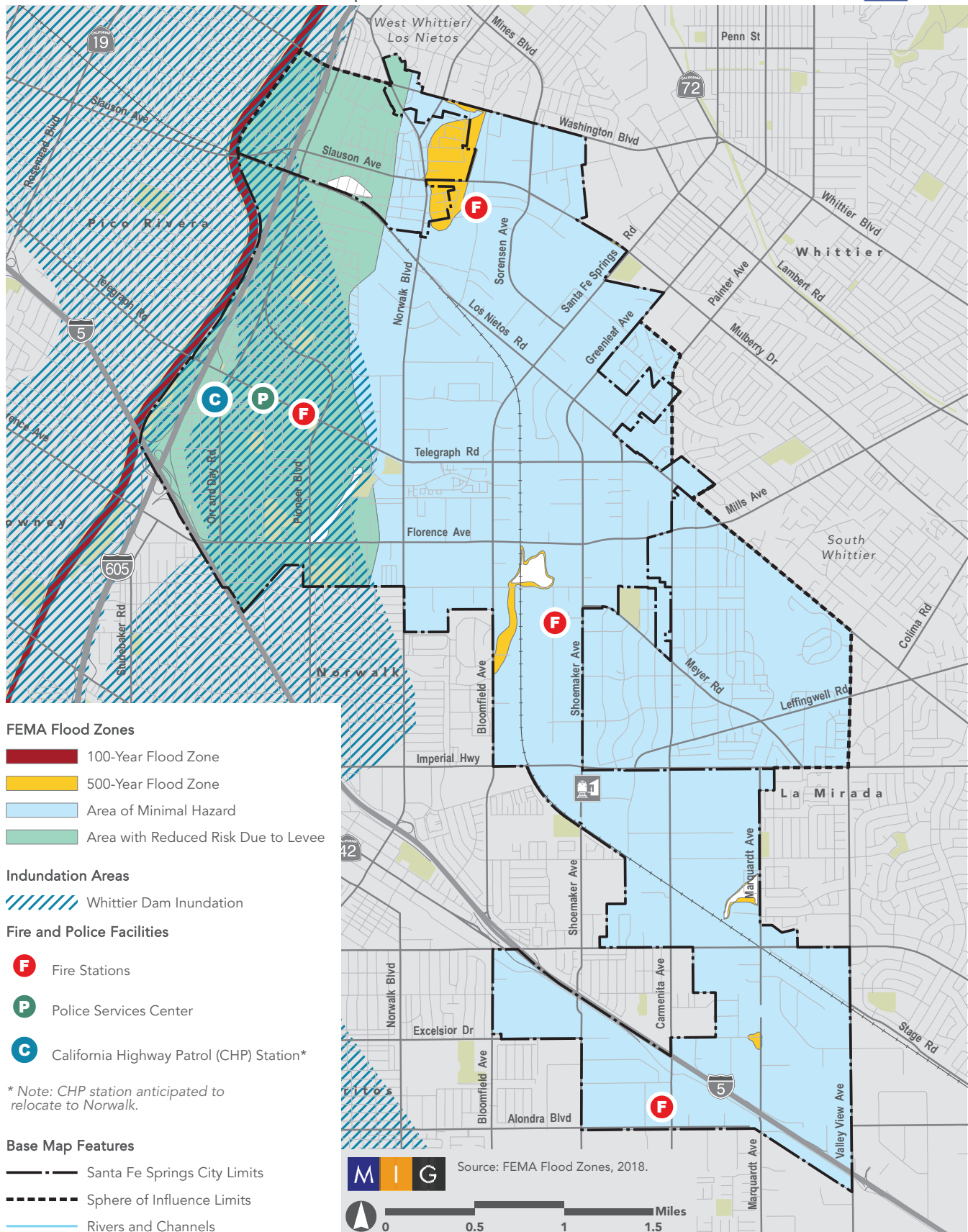
- Santa Fe Springs lies on two active blind thrust fault systems, within a seismically active region. Earthquakes and the effects of seismically induced hazards, like liquefaction, threatens older buildings.
- The City's last Natural Hazard Mitigation Plan was adopted in 2004 and revised in 2006. An updated plan that includes the heightened dangers of flooding associated with climate change may be helpful in managing a changing landscape.
- FEMA indicates four small regions in the 500-year flood event zone, or having 0.02% chance of flooding, within the Planning Area. Another risk of flooding may be associated with stormwater collection due to inadequate drainage systems and extensive impervious surfaces.
- The Whittier Narrows Dam has been determined structurally unsafe by the U.S. Army Corps of Engineers if an extreme flooding event and major seismic event were to occur simultaneously. The dam poses a potentially catastrophic risk to downstream communities, including Santa Fe Springs. Dam failure inundation could occur in the City and surrounding areas, west of Norwalk Boulevard.



Figure 5-4: Flood Zones



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## HAZARDOUS MATERIALS

Hazardous materials are substances or chemicals that are capable of having a harmful effect on human health or the environment. Four governmental agencies define and regulate hazardous materials: the U.S. Environmental Protection Agency (EPA), U.S. Occupational Safety and Health administration (OSHA), U.S. Department of Transportation (DOT), the U.S. Nuclear Regulatory Commission (NRC), and the California Department of Toxic Substance Control (DTSC). Hazardous materials are used in everyday activities from painting houses to fueling cars. The Resource Conservation and Recovery Act (RCRA) regulates the management of municipal and industrial waste to ensure the safe handling and disposal of hazardous materials. Facilities that transport, generate, or treat hazardous waste must report their activities to the California and U.S. Environmental Protection Agency (EPA) and comply with waste management standards.

### Oil Wells

Union Oil of California first drilled two dry holes in 1919 before hitting a successful oil well on its third attempt in 1921. Within a year, the Santa Fe Springs oil field was considered one of the richest pools in petroleum history, and the City became a promoters' paradise. In its peak during the 1920s, the oil field produced as much as 60,000 barrels daily. By 1924, 81 million barrels of oil had been pumped from the ground. Since 1977, more than 40 different providers have maintained wells in the Santa Fe Springs oil field; however, the only active operator currently is Maverick Natural Resources (formerly Breitburn Energy). Active oil wells (wells still extracting oil) are located in the central and eastern portions of the oil field, occupying approximately 10 city blocks, or 784 acres, as depicted in Figure 5-5. Idle wells are oil and gas wells which are not in use for production, injection, or other purposes but also have not been permanently sealed; see Table 5-3. Over 1,000 oil wells have been plugged in the City since the 1920s. A well is plugged by setting mechanical or cement plugs in the wellbore at specific intervals to prevent fluid flow.



**60,000**  
number barrels  
produced daily  
during the 1920s



**221**  
active oil wells in  
the City

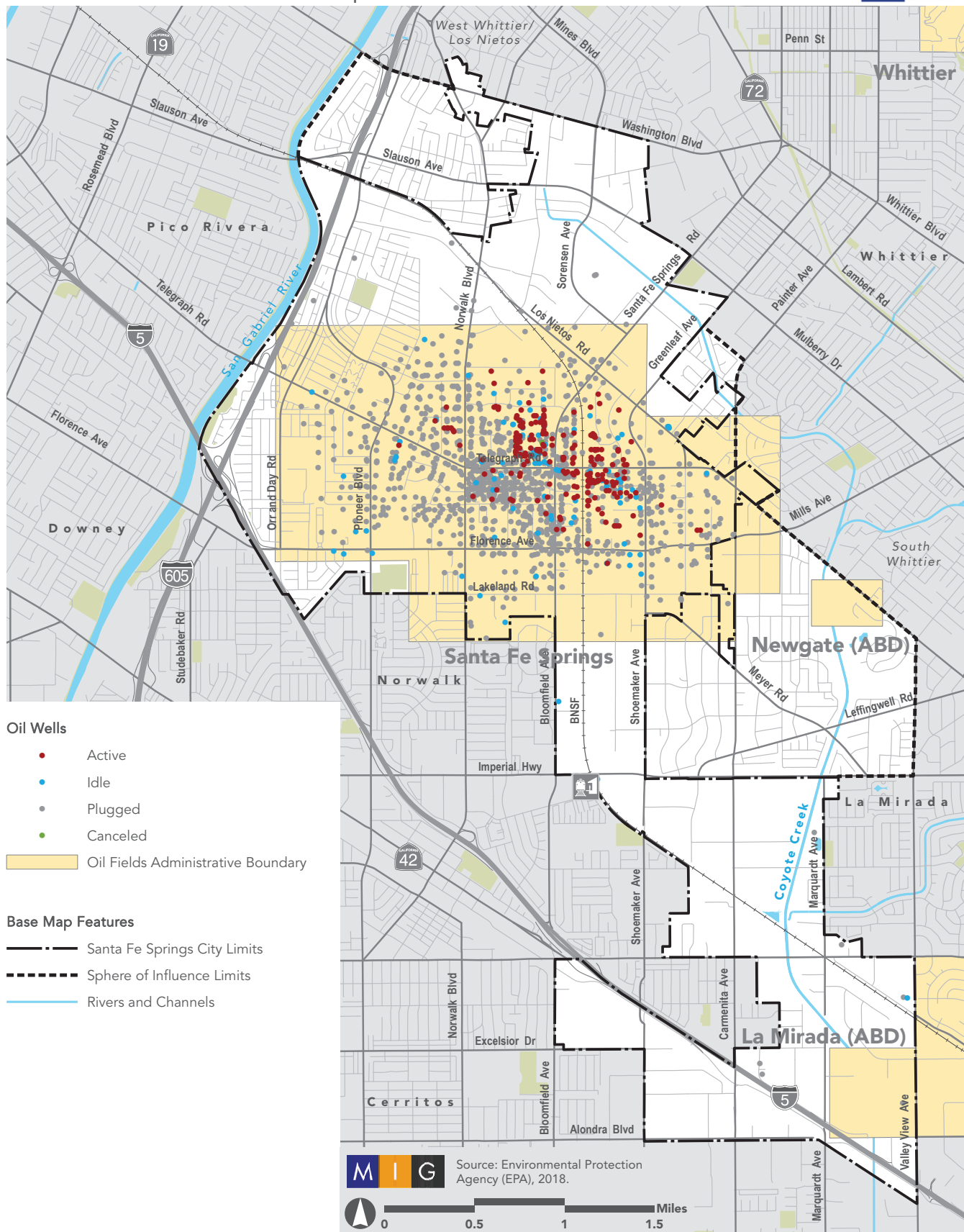
Table 5-2: Oil Wells (2020)

Oil Wells	City	Sphere of Influence	Total
Active	221	7	228
Idle	88	0	88
Plugged	1,093	21	1,114
<b>Total</b>	<b>1,402</b>	<b>28</b>	<b>1,430</b>

Source: California Department of Conservation, Geologic Energy Management Division, 2020.

Figure 5-5: Oil Wells

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## Hazardous Waste

Hazardous waste can be generated from many sources, such as construction, vehicle maintenance, industrial manufacturing, household cleaning, and service businesses, like landscaping and dry cleaning. The EPA's Toxics Release Inventory (TRI) Program manages a database of facilities that emit toxic chemicals and tracks hazardous waste transporters. The State of California divides hazardous waste generators into two categories: Small Quantity Generators (SQGs), which generate between 220 and 2,200 pounds of non-acute hazardous waste per month; and Large Quantity Generators (LQGs), which generate 2,200 pounds or more of non-acute hazardous waste per month.

Transporters move hazardous waste to a facility that can recycle, treat, store, or dispose of the waste. Hazardous waste can be transported by air, rail, highway, or water. Many hazardous wastes can be recycled safely and effectively, while other wastes must be treated and disposed of in landfills or incinerators. As noted in Table 5-3 and depicted on Figure 5-6, the Toxic Release Inventory identified generators, transporters, transfer facilities, and other hazardous waste facilities within the Planning Area.

**Table 5-3: Hazardous Waste Generators (2020)**

Oil Wells	Number of Businesses		
	City	Sphere of Influence	Total
Small Quantity Generator	322	18	340
Large Quantity Generator	61	2	63
Transfer Facilities	2	0	2
Transporter	293	20	313
Treatment, Storage, and/or Disposal	1	0	1
Other Hazardous Waste Facilities	6	0	6
<b>Total</b>	<b>685</b>	<b>40</b>	<b>725</b>

Source: Environmental Protection Agency (EPA), Resource Conservation and Recovery Act, 2018



**322**

businesses generate small quantities of hazardous waste



**61**

businesses generate large quantities of hazardous waste



**296**

businesses transport hazardous waste



**1**

business treats, stores, and/or disposes quantities of hazardous waste

**Hazardous Waste Generators**

- Small Quantity Generator
- Large Quantity Generator
- Other Hazardous Waste Facilities
- Transfer Facilities
- Transporter
- Treatment, Storage, and Disposal
- Toxic Release Inventory (TRI) Reporter

**Base Map Features**

- Santa Fe Springs City Limits
- Sphere of Influence Limits
- Rivers and Channels

Source: Environmental Protection Agency (EPA), 2018.



## Contaminated Sites

The federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), informally known as Superfund, allows the EPA to clean up contaminated sites by assigning liability and ensuring responsible parties either remediate the site or reimburse the government for EPA-led efforts. When no viable responsible party can be identified, Superfund allocates the public funds to the EPA for remedial action of contaminated sites.

The City has 10 registered Superfund sites (Figure 5-7), including one site on the National Priorities List (NPL), a 38-acre former waste disposal area, Waste Disposal Inc. (WDI). Remedial action for the WDI Superfund site was completed in 2006, and two subsequent reviews have found the implemented actions continue to protect human health and the environment. Illustrating a successful collaboration between the EPA, local jurisdictions, responsible parties, business owners, and community stakeholders, the WDI Superfund site has become a case study for efficacious cleanup and reuse. The WDI site remediation has supported economic growth by providing over 160 jobs and set precedence for redevelopment opportunities in an area where vacant property is in high demand.

## Leaking Underground Storage Tanks

Underground storage tanks are used to store petroleum and other hazardous materials. Leaking underground storage tanks (LUST) can contaminate surrounding soil, groundwater, or surface waters. Once the leak is registered and confirmed, immediate response actions must be taken to minimize or eliminate the source of the release and to reduce potential harm to human health, public safety, and the environment. Four LUST sites have been reported in Santa Fe Springs, as shown in Figure 5-7.

## Superfund Site Groundwater Plume

The Omega Chemical Corporation was a refrigerant and solvent recycling company that operated in the City of Whittier between 1976 and 1991. As a result of business operations, spills and leaks of various chemicals contaminated the soil and groundwater beneath the facility with high concentrations of tetrachloroethene (PCE) and trichloroethene (TCE). Prolonged exposure to these chemicals has been proven to cause severe long-term health effects. These chemicals have contaminated the groundwater, creating a large plume beneath the City of Santa Fe Springs (see Figure 5-8).

In 1995 and 1996, the EPA oversaw initial cleanup activities at the former Omega Chemical Corporation site, including the removal of approximately 3,000 drums of hazardous waste and excavation and removal of grossly contaminated near-surface soil. In 1999, the EPA placed this site on its Superfund National Priorities List.

In 2011, the EPA selected an interim remedial action to contain the large plume of contaminated groundwater at the Omega Chemical Corporation Superfund site. The selected remedy is an interim action to contain the plume of contaminated groundwater. The overall objective of the interim remedial action is to protect human health and the environment by preventing further spreading of the contaminated groundwater to as-yet uncontaminated portions of the aquifer and nearby production wells.

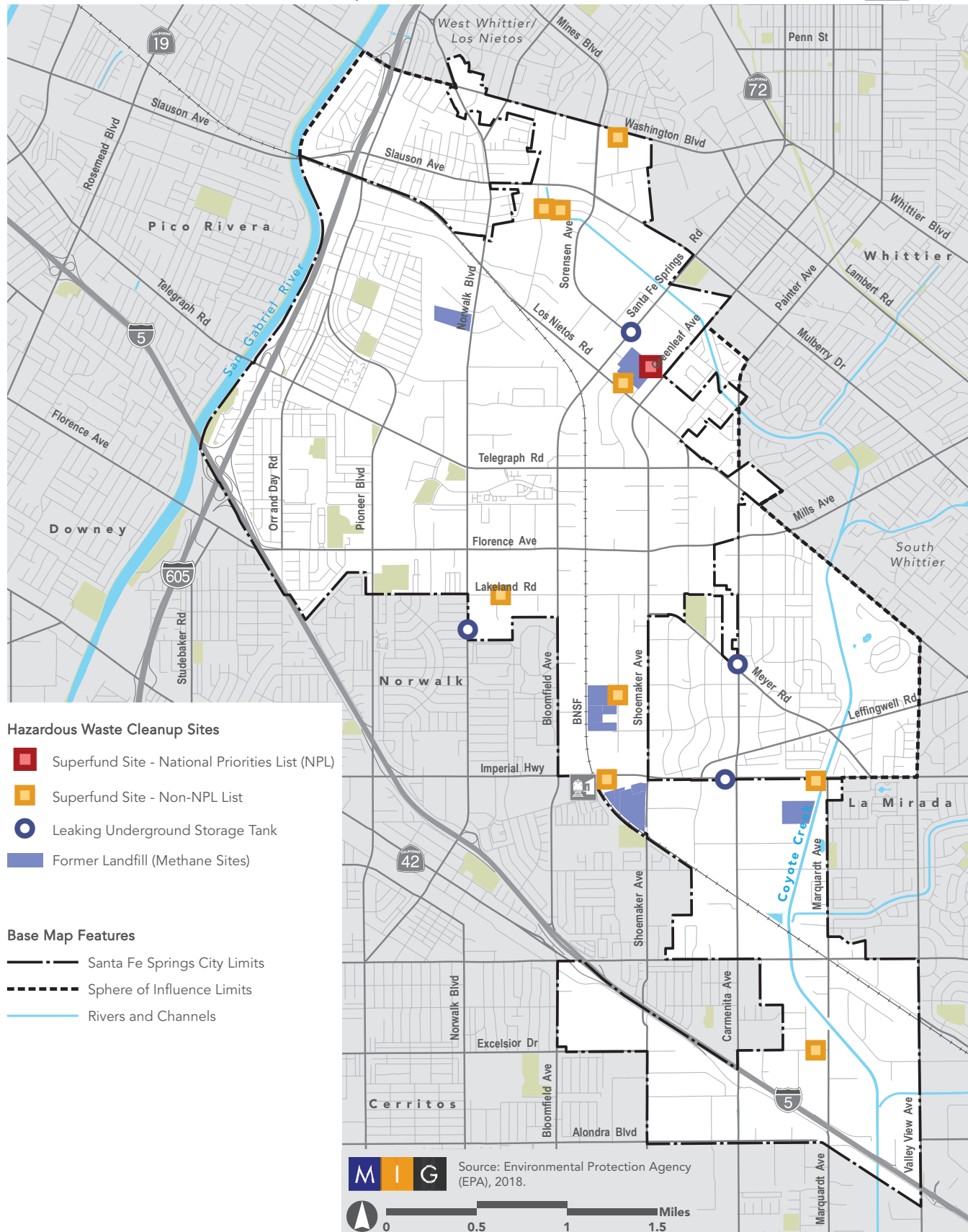
The City of Santa Fe Springs has shut down water production wells due to high contamination levels in the groundwater beneath the City.

In 2017 and 2018, 53 groundwater monitoring wells were constructed to provide data needed to design a regional groundwater cleanup system. As of 2020, work to address contaminated groundwater and design the regional groundwater cleanup system is ongoing.

Figure 5-7: Hazardous Waste Contamination Sites



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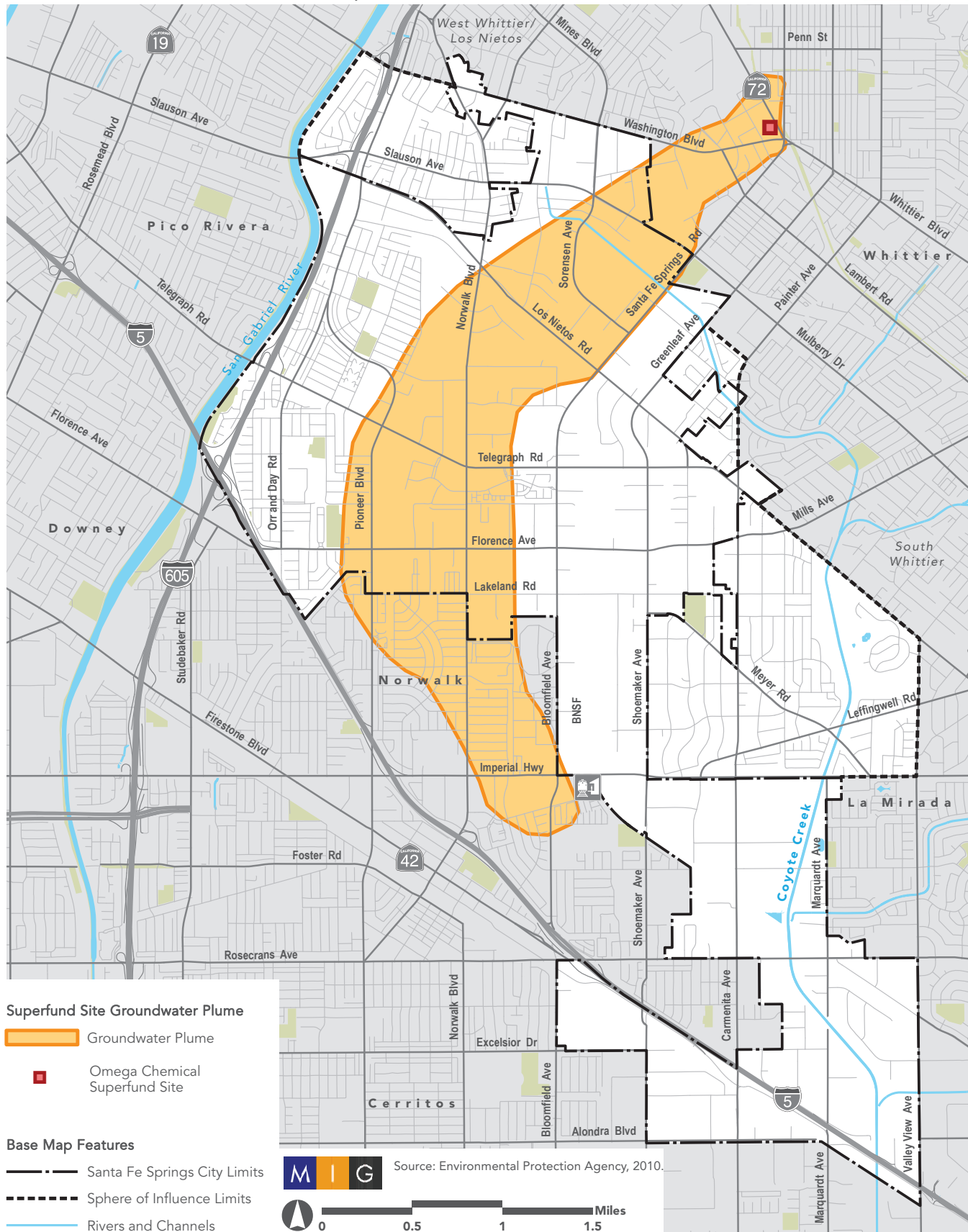




# Figure 5-8: Contaminated Groundwater Plume



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### Key Considerations:

- Santa Fe Springs welcomed a booming oil industry after Union Oil discovered a gusher in 1921. During the 1920s, oil production peaked at a rate of 60,000 barrels a day. Production levels have declined over time, as the Santa Fe Springs Oil Field has matured. The City will continue to account for the presence of former wells in its land planning and decisions due to contaminations issues associated with years of oil production.
- The largely industrial economy contributes to the high number of hazardous waste generators and transporters in the City.
- Superfund cleanups restore value to property and benefit surrounding communities. The Waste Disposal, Inc. Superfund cleanup effort provided over 160 jobs and about \$9.5 million in annual employee income, while neighboring businesses remained open during and after cleanup. This case study may be used to motivate the public and guide future Superfund efforts at nearby sites.
- The Omega Chemical Corporation Superfund Site located in the City of Whittier has contaminated the groundwater beneath Santa Fe Springs and closed water supply production wells.



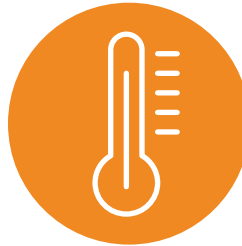
## CLIMATE CHANGE

Climate change is a long-term shift in global or regional climate patterns. Often climate change refers specifically to the rise in global temperatures from the mid-20th century to present. Climate is sometimes mistaken for weather. But climate is different from weather because it is measured over a long period of time, whereas weather can change from day to day, or from year to year. The climate of an area includes seasonal temperature and rainfall averages and wind patterns. Climate change is the long-term alteration of temperature and typical weather patterns in a place, causing weather patterns to be less predictable.

Humans—more specifically, the greenhouse gas (GHG) emissions we generate—are the leading cause of the Earth’s rapidly changing climate. Greenhouse gases play an important role in keeping the planet warm enough to inhabit. But the amount of these gases in our atmosphere has skyrocketed in recent decades. The burning of fossil fuels like coal, oil, and gas for electricity, heat, and transportation is the primary source of human-generated emissions. Curbing dangerous climate change requires very deep cuts in emissions, as well as the use of alternatives to fossil fuels worldwide.

Scientists agree that the Earth’s rising temperatures are fueling longer and hotter heat waves, more frequent droughts, and heavier rainfall.

**Over the 20 to 80 years  
Santa Fe Springs community  
will experience:**



**Rising  
Temperatures**



**Heavier  
Rainfall**



**Extreme  
Heat Events  
and Longer  
Droughts**

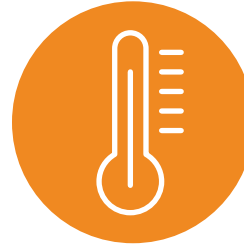




## Weather Pattern Changes

### Annual Average Temperatures and Precipitation

Santa Fe Springs enjoys moderate temperatures due to the proximity to the Pacific Ocean. Between 1950 and 2005, average annual temperatures averaged 77.2 degrees Fahrenheit, with an annual minimum of 73.5 and a maximum of 79.2 degrees Fahrenheit. Using the Cal Adapt Climate Tools for Santa Fe Springs, Table 5-4 identified the minimum and maximum temperatures and precipitations between observed historical data between 1950 and 2005 and projected temperature rises using two scenarios. The RCP 4.5 scenario models greenhouse gases peaking in 2040 and beginning to drop thereafter, projecting moderate changes in temperatures and precipitation. The RCP 8.5 scenario models greenhouse gases increasing strongly through 2050 and plateauing around 2100, projecting aggressive changes in temperatures and precipitation. Overall temperatures are projected to rise substantially throughout this century. On average, the projections show little change in total annual precipitation.



**+5° to 7° F**

**Average temperature changes between 2040 and 2099**



**+1**

**inch of rain on average between 2040 and 2099**

**Table 5-4: Temperatures and Precipitation**

Baseline and Modeled Scenarios	Annual Averages in Santa Fe Springs								
	Minimum Temperatures (F)			Maximum Temperatures (F)			Precipitation (inches)		
	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max
Observed Historical (1950 to 2005)	50.6	54.1	57.4	73.5	77.2	79.8	4.1	14.4	32.7
Emissions Peak in 2040 (RCP 4.5) (2040 to 2099)	55.7	58.7	61.6	78.1	82.0	85.7	3.4	14.3	47.1
Change (Base – RCP 4.5)	+5.1	+4.6	+4.2	+4.6	+4.8	+5.9	-0.7	-0.1	+14.4
Emissions Continue to Rise Beyond 2050 (RCP 8.5) (2040 to 2099)	55.9	60.8	66.3	79.3	84.0	90.6	2.3	15.4	47.5
Change (Base – RCP 8.5)	+5.3	+6.7	+8.9	+5.8	+6.8	+10.8	-1.8	+1.0	+14.8

Source: Cal-Adapt, 2020 California Energy Commission, <www.caladapt.org>, 2020.

Note: (F): Fahrenheit



## Extreme Heat Events

Extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks. California’s warm months have become increasingly hotter over the past several decades. The number of extreme heat events—the hottest days and nights—has increased, especially in the last 30 years. Nights have warmed more than days. On extreme heat days, temperatures are at or above the highest 2% of historical daily highs, while on extreme heat nights, they are at or above the highest 2% of historical daily lows.

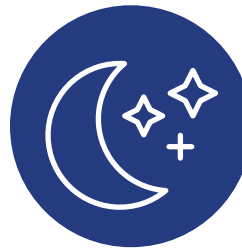
The effects of extreme heat on human health are well known. Following a record-breaking heat wave in California in July 2006, over 16,000 emergency room visits, more than 1,100 hospitalizations, and at least 130 deaths were reported. As heat events are projected to become more frequent and last longer, preparing for the public health challenges they pose is critical. This event impacted California’s economy, energy supply, and health.

The risk of heat-related illnesses and deaths is influenced by the characteristics of the extreme heat event. When temperatures do not cool down at night, or when humidity is high, the body’s ability to cool down is hampered. Table 5-5 identifies the rise in number of extreme days and warm nights annually projected using a Cal Adapt model.



**+9 to 18**

**additional extreme heat days between 2040 and 2099**



**+27 to 56**

**additional warmer nights between 2040 and 2099**

**Table 5-5: Extreme Heat and Warm Nights**

Baseline and Modeled Scenarios	Number of Days Annually Santa Fe Springs			
	Extreme Heat Days		Warm Nights	
	Extreme Heat Days	Warm Nights	Max	Min
Observed Historical (1950 to 2005)	Number	Percent	Number	Percent
Emissions Peak in 2040 (RCP 4.5) (2040 to 2099)	13	--	22	--
Change (Base – RCP 4.5)	+9	+225%	+27	+675%
Emissions Continue to Rise Beyond 2050 (RCP 8.5) (2040 to 2099)	31	--	60	--
Change (Base – RCP 8.5)	+18	+450%	+56	+1400%

Source: Cal-Adapt, 2020 California Energy Commission, <[www.caladapt.org](http://www.caladapt.org)>, 2020.



## Droughts

In recent decades, drought years have become more frequent and more severe in California. Droughts are periods of unusually dry weather that last long enough to cause a shortage of water. California has a highly variable climate and is susceptible to dry spells. Recent research suggests that extended drought occurrence ("mega-drought") could become more pervasive in future decades. Droughts can have widespread impacts on communities, often leading to significant economic costs. Water supplies for drinking, household use, and power generation become scarce. They can also affect human health by altering patterns of certain diseases like West Nile Virus and by increasing air pollution from local industrial and traffic emissions, as well as seasonal wildfires from nearby mountain areas.

The 2011-2017 California drought was one of the most intense droughts in California history, with the period of late 2011 through 2014 being the driest in California history. The drought killed 102 million trees from 2011 to 2016.

## Sea Level Rise and Wildfire

Santa Fe Springs is just over 10 miles from the beaches in Long Beach and Seal Beach, so there are no direct threats from sea-level rise flooding hazards. Additionally, there are no Very High Fire Hazard Severity Zones in the City, as identified by California Department of Forestry and Fire Protection (CAL FIRE); therefore, there are no wildfire hazards in the City.



Photo credit: ABC News

*During one of the worst droughts in California's history, workers paint green dye onto drought affected grass at a home in Santa Fe Springs in October 2014*



## At-Risk Populations Vulnerable to Climate Change

Californians already experience the worst air quality in the nation. Hotter temperatures lead to more smog, which can damage lungs, and increases childhood asthma, respiratory and heart disease, and death. Certain segments of the population are at greater risk, including the elderly, infants, persons with chronic heart or lung disease, people who can't afford air conditioning, and those who work outdoors. As temperatures rise, the number of days of extreme heat events also will rise, causing increases in the risk of injury or death from dehydration, heatstroke, heart attack and respiratory problems. Table 5-7 identifies potential at-risk populations vulnerable to climate change in the City, based on U.S. Census 2018 data.

People with disabilities are especially vulnerable to extreme heat events. People with disabilities experience disproportionate poverty levels and live in lower-quality housing on average, compared to those without disabilities. This often means they have less access to air-conditioning at home or may have less money to pay air-conditioning bills if they do have air conditioning. Some cooling shelters may not be easy to get to for people relying on public transit or who are isolated at home—and those cooling shelters may be inaccessible and/or not have necessary medical or other disability supports as well. The combination of physical and social factors means that people with disabilities are, on average, more vulnerable to heat stress, heat exhaustion, or death during extreme heat events.

Table 5-6: At-Risk Population to Climate Change

At-Risk Population	Santa Fe Springs		LA County	
	Number	Percentage	Number	Percentage
<b>Total Population</b>	<b>17,791</b>	<b>100.0%</b>	<b>10,163,507</b>	<b>100%</b>
Children (under age 5)	1,184	6.7%	617,979	6.1%
Seniors (over 65 years of age)	2,489	14.0%	1,921,939	18.9%
With Disability	935	5.3%	469,965	4.6%
Persons with Disabilities	1,852	10.4%	987,522	9.7%
<b>Health Issues</b>				
Coronary Heart Disease	950	5.3%	547,800	5.4%
Chronic Obstructive Pulmonary Disease	860	4.8%	539,680	5.3%
Asthma	1,380	7.8%	863,900	8.5%
<b>Total Employed (over age 16)</b>	<b>7,963</b>	<b>100.0%</b>	<b>5,001,369</b>	<b>100.0%</b>
Outdoor Workers	381	4.8%	270,099	5.4%

Source: Cal-Adapt, 2020 California Energy Commission, <[www.caladapt.org](http://www.caladapt.org)>, 2020.





## Existing Conditions to Mitigate Climate Change

### Tree Canopies

Trees are beneficial for mental and physical health in many ways. They can provide shade and cool surrounding areas; reduce stress; and promote health, wellness, and physical activity. Trees are also essential to mitigate the effects of climate change, especially extreme heat events. In terms of tree canopy coverage, weighted by number of people per acre, Santa Fe Springs ranks at the 34th percentile compared to other California cities. Figure 5-9 identifies the percentage of tree canopy coverage, with higher tree canopy coverages at Heritage Park, Clarke Estate, and Candlewood Country Club (Candlewood Country Club is located in the Sphere and not the City).

### Rooftop Solar Farms

Solar energy creates clean, renewable power from the sun and benefits the environment. Alternatives to fossil fuels reduce the carbon footprint at home and work by reducing greenhouse gases. Solar is known to have a favorable impact on the environment, including fighting climate change. The development of industrial building rooftop solar farms is a potentially significant opportunity. Of the 3,270 commercial and industrial buildings in Santa Fe Springs, only 17 buildings include solar panels on their rooftops. That is approximately three million square feet of building rooftop area, although many buildings now only use a portion of the rooftops for solar panels.

### Vehicle Usage

Transportation is California's largest source of carbon dioxide gas, the primary contributor to climate change. Cars and trucks that transport goods and people create approximately 38% of total climate change emissions. According to the 2018 U.S. Census data, only 5.5% of the working population walk, bike, or use transit to get to work. The majority of Santa Fe Spring residents (83%) drove alone (single occupancy) in a vehicle during their commute to work.

Electric vehicles powered by batteries and gasoline-powered generators (hybrids) save fuel costs and greatly reduce vehicle emissions, including local smog. Battery-powered electric vehicles have much lower greenhouse gas emissions than standard internal combustion engine vehicles. Fuel-cell vehicles powered by hydrogen are even better and are increasingly becoming available. Alternative fuels are compressed natural gas, ethanol, liquid natural gas, and propane. These fuels do not offer the same level of greenhouse gas benefits as electric-drive technologies, but they can provide a wide range of air quality benefits.

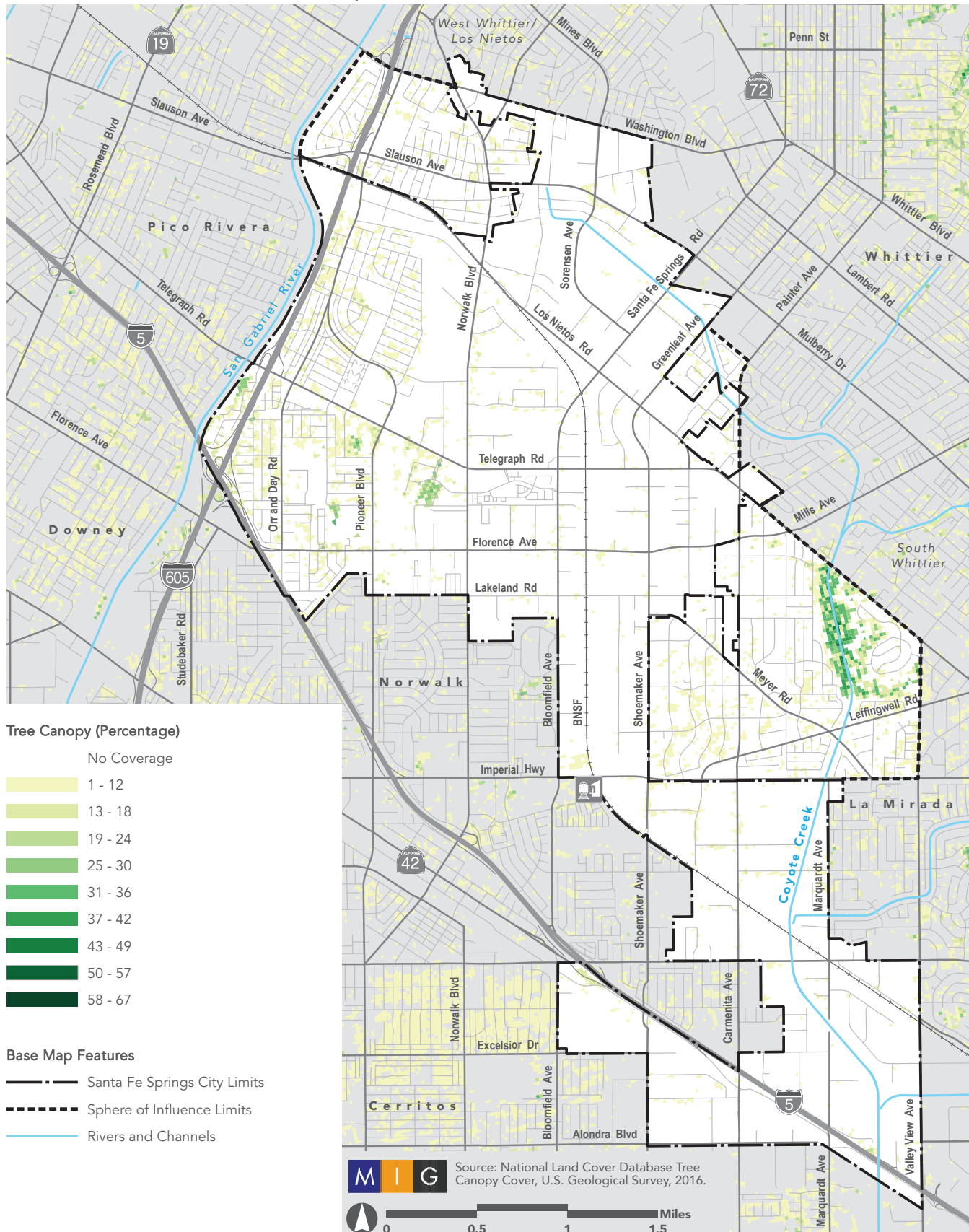
Transit and walking and biking may not be a solution for climate change. But there is substantial evidence that a person can reduce the greenhouse gases he or she walks, bikes, or takes transit.



Many of the buildings in the Golden Springs Business Park include rooftop solar panels

Figure 5-9: Tree Canopy

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## Key Consideration

- Across the region, average maximum temperatures are projected to increase around four to five degrees Fahrenheit based on conservative scenario, and five to eight degrees Fahrenheit based on more aggressive scenario.
- The number of extreme heat days annually is expected to increase from 4 days to 13 days using conservative scenarios and 22 days using an aggressive scenario. The number of warm nights annually are expected to increase from 4 days to 31 days using conservative scenarios and 60 days using an aggressive scenario.
- Most areas in Santa Fe Springs have limited tree canopies, including the residential and industrial areas. Many parks and open spaces have moderate tree canopy coverages.
- Fourteen percent of Santa Fe Springs' population is over the age of 65 years, a group that will be susceptible to extreme heat events. Another group are those with disabilities, with 10% of the population.





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## CHAPTER 6: ENVIRONMENTAL JUSTICE AND HEALTH

### EXISTING CONDITIONS TECHNICAL REPORT



**Re-Imagine**  
**Santa Fe Springs**

2040 GENERAL PLAN



## CHAPTER 6: ENVIRONMENTAL JUSTICE AND HEALTH

### EXISTING CONDITIONS TECHNICAL REPORT

INTRODUCTION

ENVIRONMENTAL JUSTICE

HEALTH AND WELLNESS





## INTRODUCTION

This chapter focuses on environmental justice and community health and wellness. Environmental justice concentrates on identifying the disadvantaged communities within the Planning Area and the pollution and other environmental and social burdens that impact those communities. Health and wellness address the Healthy Places Index, general health conditions, health insurance and healthcare access, food insecurity and grocery store access, and physical activity.

This section includes an analysis to determine the level of environmental health risks associated with the environmental pollution burdens and the health conditions and social characteristics of the City of Santa Fe Springs' neighborhoods. The data provided in this section represent a preliminary screening that would identify: a) disadvantaged communities and vulnerable populations and b) health outcomes and indicators of well-being. For reference, disadvantaged communities refer to the areas which most suffer from a combination of economic, health, and environmental burdens.

## ENVIRONMENTAL JUSTICE

Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental regulations and policies implemented by local agencies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations and policies.



*As a mostly industrial city, pollution associated with these uses has created pollution burdens to certain residential neighborhoods.*



## Disadvantaged Communities

California law requires local governments to identify any disadvantaged communities that exist in their communities. Indicators used to identify a disadvantaged community include: a) low-income areas and b) environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. One such approach is through California Communities Environmental Health Screening Tool called CalEnvironScreen 3.0, developed by the California Environmental Protection Agency for the purpose of identifying disadvantaged communities.

The CalEnvironScreen 3.0 tool uses a methodology to identify disadvantaged communities that incorporates the following indicators of pollution burden and population characteristics:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation
- Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment

See Table 6-1 for the indicators used in the CalEnvironScreen 3.0 analysis.

**Table 6-1: CalEnvironScreen 3.0 Indicators**

Pollution Burdens			
<b>Exposure Indicators</b>	<ul style="list-style-type: none"> <li>» Ozone concentrations in air</li> <li>» PM 2.5 concentrations in air Diesel particulate matter emissions</li> <li>» Drinking water contaminants</li> <li>» Use of certain high-hazard, high volatility pesticides</li> <li>» Toxic releases from facilities</li> <li>» Traffic density</li> </ul>	<b>Environmental Effect Indicators</b>	<ul style="list-style-type: none"> <li>» Toxic cleanup sites</li> <li>» Groundwater threats from leaking underground storage sites and cleanups</li> <li>» Hazardous waste facilities and generators</li> <li>» Impaired water bodies</li> <li>» Solid waste sites and facilities</li> </ul>
Population Characteristics			
<b>Sensitive Population Indicators</b>	<ul style="list-style-type: none"> <li>» Asthma emergency department visits</li> <li>» Cardiovascular disease (emergency department visits for heart attacks)</li> <li>» Low birth-weight infants</li> </ul>	<b>Socioeconomic Factor Indicators</b>	<ul style="list-style-type: none"> <li>» Educational attainment</li> <li>» Housing burdened low income households</li> <li>» Linguistic isolation</li> <li>» Poverty</li> <li>» Unemployment</li> </ul>

Source: CalEnvironScreen 3.0 the Office of Environmental Health Hazard Assessment, June 2018.



CalEnvironScreen 3.0 produces a percentile ranking of Santa Fe Springs' census tracts (small, relatively permanent statistical subdivisions of a city or county). The percentile ranking for each census tract demonstrates the degree of burdens present in that tract relative to the rest of the State's census tracts. The CalEnvironScreen 3.0 scores are not provided on a jurisdictional basis; the tracts presented here cover most of the City's geography and population and overlap with some of the Santa Fe Spring Sphere of Influence areas. The CalEnvironScreen 3.0 is a score composed of 20 indicators representing the product of two metrics—pollution burden and population characteristics—to produce an overall CalEnvironScreen 3.0 score for each census tract (see Table 6-2).

All census tracts are then ordered from highest to lowest and assigned a percentile rank. Percentile ranking for a census tract above 75 would mean that the census tract is in the top 25% of all CalEnviroScreen scores statewide. Table 6-2 shows that seven census tracts (5028.02, 5027.00, 5029.02, 5023.01, 5023.02, 5031.04, and 5031.05) within the Planning Area would have percentile scores in the top 25%. A score above 75 would qualify that tract as a disadvantaged community. Figure 6-1 identifies the location of these disadvantaged tracts within the Planning Area.

**Table 6-2: CalEnvironScreen (CES) 3.0 Percentile Scores**

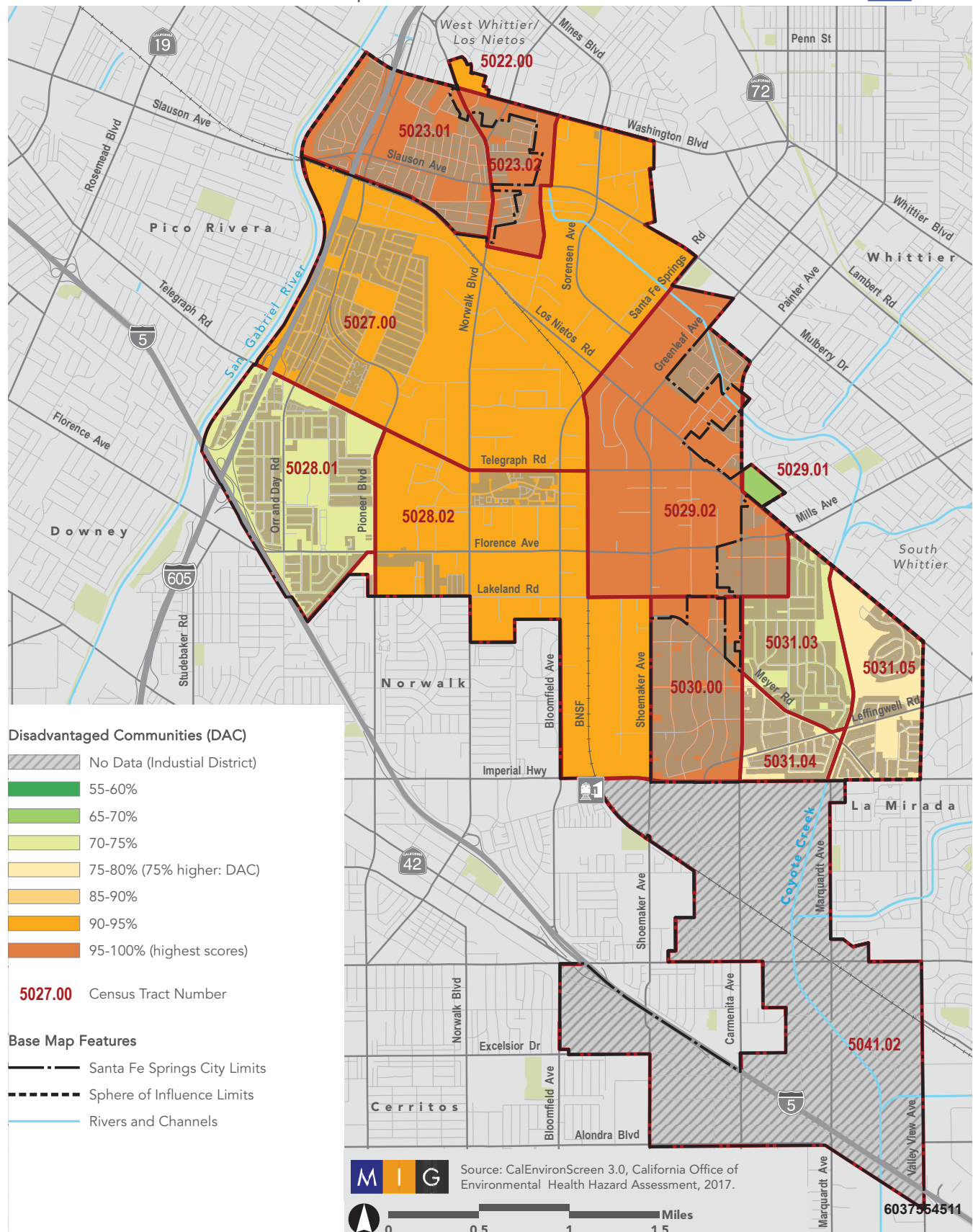
Percentiles and Indicators	City of Santa Fe Springs				Sphere of Influence				
	Not a DAC	Census Tracts Identified as Disadvantaged Communities (DAC)							Not a DAC
	5028.01	5028.02	5027	5029.02	5023.01	5023.02	5031.04	5031.05	5031.03
CES 3.0 Percentile	70	92	91	95	95	95	80	76	71
Pollution Indicators Percentile	95	94	99	95	98	95	81	71	71
Population Characteristics Percentile	41	77	58	81	74	81	68	70	61

Source: CalEnvironScreen 3.0 the Office of Environmental Health Hazard Assessment, June 2018.

Note: Census tracts with a CES 3.0 percentile of 75 or greater is highlighted in red, indicating these areas are within the top 25 percentiles in the State are considered disadvantaged communities.

# Figure 6-1: Disadvantaged Communities

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## Pollution Burden

One of the indicators used to designate a disadvantaged community is pollution burden. The pollution burden is calculated by measuring the average of exposure and environmental effects. Tract 5041.02 contains the City's southern industrial region, but due to its very low residential population, a composite score is not determined and therefore excluded. Although not shown on Table 6-3, this area would show pollution indicators that are among the top 2% of all census tracts in the State. Tract 5028.01 in the City and tract 5031.03 in the Sphere of Influence are the only populated areas not designated as a disadvantaged community. Although not designated as a disadvantaged community, census tract 5028.01, which encompasses the area around Santa Fe High School, has a pollution burden score that

is within the top five percent ranking in the state, at the 95th percentile. Tract 5027 is within the top 1%, at 99th percentile.

**Table 6-3: Pollution Burden Indicators Percentiles Scores**

Pollution Burden Percentiles and Indicators	City of Santa Fe Springs				Sphere of Influence				
	Not a DAC	Census Tracts Identified as Disadvantaged Communities (DAC)							Not a DAC
	5028.01	5028.02	5027	5029.02	5023.01	5023.02	5031.04	5031.05	5031.03
<b>Pollution Indicators</b>	<b>95</b>	<b>94</b>	<b>99</b>	<b>95</b>	<b>98</b>	<b>95</b>	<b>81</b>	<b>71</b>	<b>71</b>
Cleanup Sites	77	98	100	99	93	97	78	69	49
Hazardous Waste	73	89	100	95	99	99	31	32	18
Groundwater Threats	45	98	96	95	70	90	39	2	41
Solid Waste Facilities	68	85	93	95	71	71	87	88	79
Toxic Release Inventory	85	83	87	85	89	89	82	82	82
PM <sub>2.5</sub>	82	82	82	82	82	82	82	82	82
Traffic	96	51	82	39	88	47	27	32	32
Diesel PM	80	63	73	57	64	61	83	58	60
Drinking Water	61	61	88	65	88	89	52	60	60
Ozone	53	53	53	53	53	53	53	53	53
Impaired Water Bodies	41	0	41	29	41	0	29	29	29
Pesticides	0	0	0	0	0	0	0	0	0

Source: CalEnvironScreen 3.0 the Office of Environmental Health Hazard Assessment, June 2018.

Note: Census tracts with a pollution burden percentile of 75 or greater is highlighted in red, indicating these areas are within the top 25 percentiles in the State regarding pollution burdens.



Pollution Indicators above 75, at the top 25% of the state census tracts, are noted and provided descriptions below.



**Cleanup Sites.** Brownfield sites containing hazardous substances are areas that suffer from environmental degradation that can lead to severe health problems. While some sites may be undergoing cleanup actions by governmental authorities or by property owners, others may experience delays due to high costs, lawsuits, and concerns regarding cleanup.



**Solid Waste Sites and Facilities.** Old, noncompliant, or abandoned solid waste disposal sites can release waste gases such as methane and carbon dioxide for decades after site closure. Exposure to landfill leachate can have adverse impacts on reproductive and respiratory systems.



**Groundwater Threats.** Hazardous waste storage and disposal sites can negatively impact soil, groundwater (drinking water), and air quality, leading to a wide array of negative health impacts.



**Hazardous Waste.** Hazardous waste is potentially dangerous or harmful to human health or the environment. Potential health effects associated with living in proximity to hazardous waste processing and disposal sites include diabetes and cardiovascular disease.



**Toxic Release.** Elevated levels of hazardous cancer-causing air pollutants have been found in areas where industrial facilities are sited. Accidental chemical releases can exacerbate pollution exposure and can lead to a wide variety of detrimental health problems.

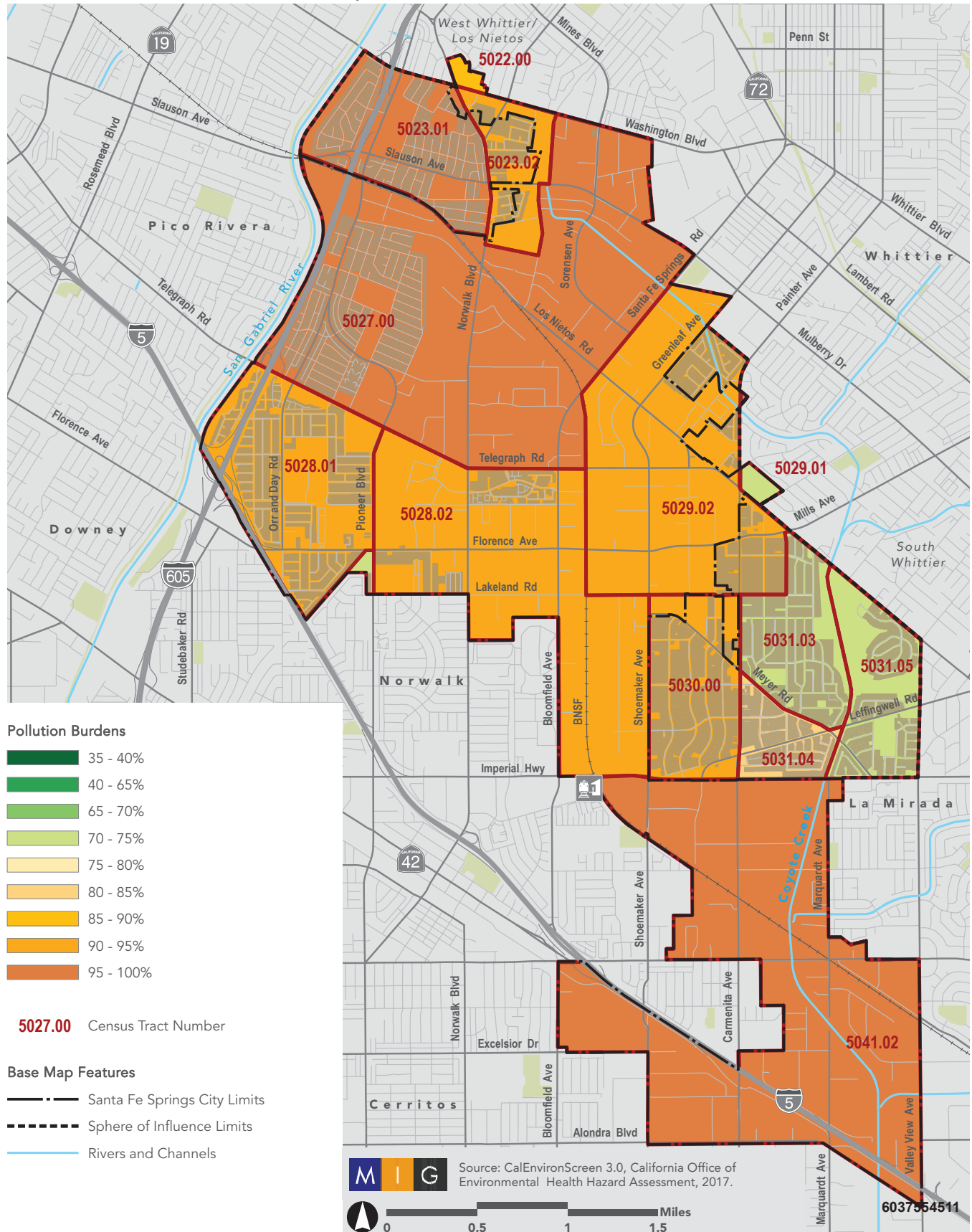


**PM<sub>2.5</sub>.** Particulate matter (PM<sub>2.5</sub>) are fine inhalable particles with diameters that are generally 2.5 micrometers and smaller. PM<sub>2.5</sub> can originate from a variety of sources such as cars and trucks, industrial facilities, and wood burning. Fine particulate matter pollution causes heart and lung disease and can lead to increased mortality.

# Figure 6-2: Pollution Burden



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According to geospatial analysis, nearly 2,000 homes in Santa Fe Springs are located within 500 feet of an industrial use, affecting 5,000 persons (28% of City residents). Over 1,500 homes with nearly 5,500 persons in the City are within 1,000 feet of the I-5 and I-605 freeways. Over 1,800 homes with nearly 4,500 residents in the City are within 500 feet of a businesses that handles and/or releases hazardous waste. Many homes and residents are confronting pollution burdens along different fronts. Many of the pollutions are invisible or difficult to detect. But long-term exposure can lead to health issues. Table 6-4 summarizes the number of housing units and population living near various environmental pollution burdens. Figure 6-3 identifies the proximity of residential uses to the various environmental pollution burdens.



**5,111**

**City residents live within 500 feet of an industrial business**



**5,492**

**City residents live within 1,000 feet of a freeway**

**Table 6-4: Housing and Population Proximity to Pollution Indicators**

Pollution Burden	Number of Housing Units			Population		
	City	SOI	Total	City	SOI	Total
Proximity to Industrial Uses						
Share a Property Line	512	166	678	1,196	685	1,881
Within 500 Feet	1,965	1,975	3,940	5,111	8,585	13,696
Proximity to I-5 and I-605 Freeways (Traffic and Diesel PM)						
Within 500 Feet	824	177	1,001	2,914	818	3,732
Within 1,000 feet	1,563	439	2,002	5,492	2,058	7,550
Proximity to Toxic Release Inventory						
Within 500 Feet	1,833	582	2,415	4,563	2,590	7,153
Within 1,000 feet	3,379	2,128	5,507	9,738	8,968	18,706
Proximity to Solid Waste Facilities and Clean Up Site						
Within 500 Feet	45	12	57	154	53	207
Within 1,000 feet	209	204	413	701	904	1,605

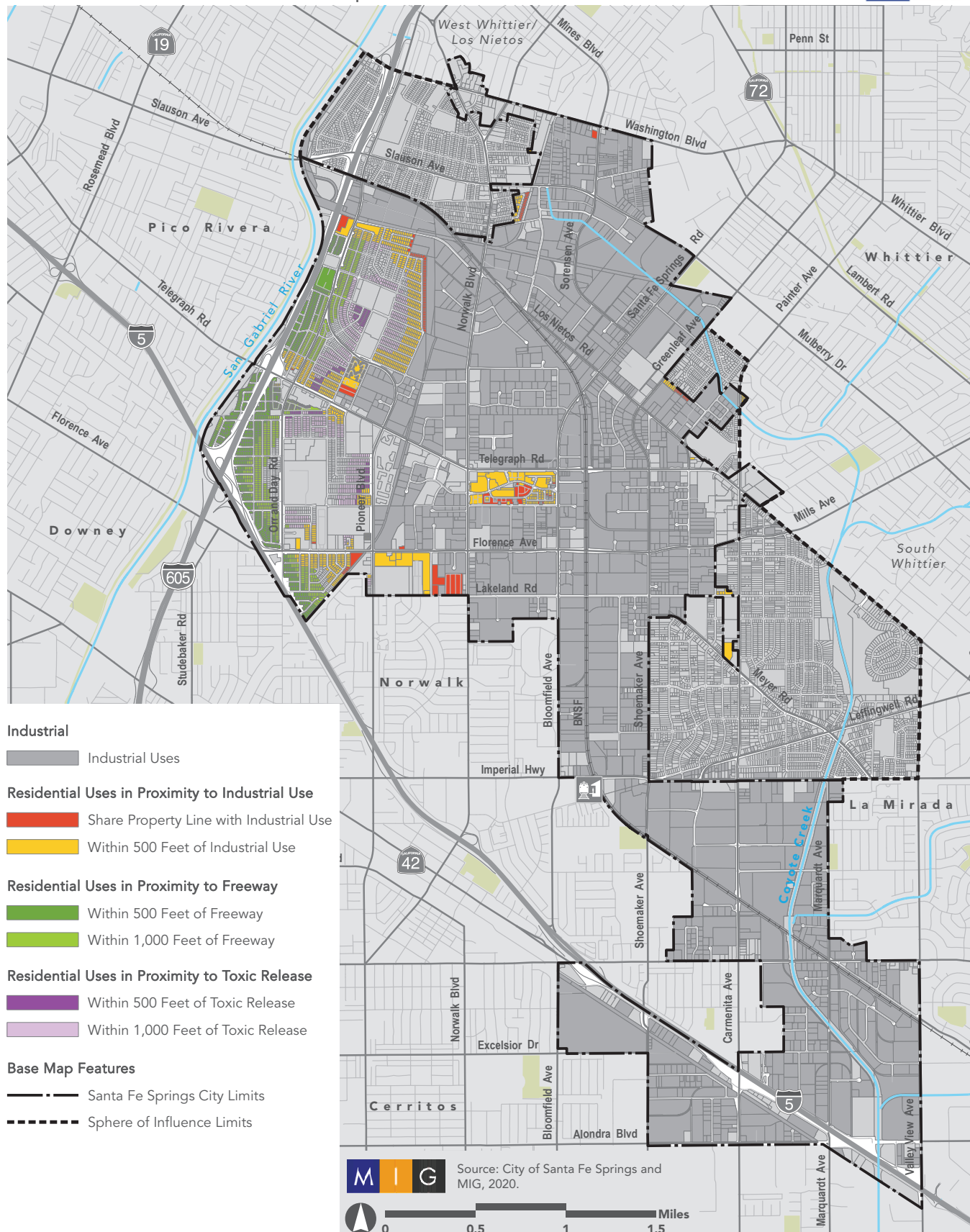
Source: MIG and UrbanFootprint, 2020.



Figure 6-3: Pollution Burden



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*In the City nearly 2,000 homes with over 5,000 residents live within 500 feet of an industrial business.*



*In the City, nearly 1,600 homes with about 5,500 residents live within 1,000 feet of a freeway.*





## Population Characteristics

Table 6-5 and Figure 6-4 show CalEnvironScreen population characteristics indicators related to health conditions (asthma, low-birth weight, and cardiovascular disease) and socio-economic factors. Socio-economic factors are related to commonly found characteristics of low-income populations such as lower educational

attainment, linguistic isolation, and lower material well-being measured in poverty, unemployment, and housing burden. The top characteristics across multiple census tracts is cardiovascular disease. Another top characteristic is education, with five of the nine census tracts having lower educational attainment.

**Table 6-5: Population Characteristics Indicators Scores**

Population Characteristics Percentiles and Indicators	City of Santa Fe Springs				Sphere of Influence				
	Not a DAC	Census Tracts Identified as Disadvantaged Communities (DAC)							Not a DAC
		5028.01	5028.02	5027	5029.02	5023.01	5023.02	5031.04	5031.05
<b>Population Characteristics</b>	<b>41</b>	<b>77</b>	<b>58</b>	<b>81</b>	<b>74</b>	<b>81</b>	<b>98</b>	<b>70</b>	<b>61</b>
Asthma	58	59	62	66	78	71	52	64	57
Low Birth Weight	27	50	39	58	43	5	43	78	38
Cardiovascular Disease	81	83	86	81	98	96	61	88	70
Education	51	71	76	86	79	86	86	71	66
Linguistic Isolation	44	94	62	70	74	87	65	59	73
Poverty	41	79	48	78	56	83	66	59	73
Unemployment	7	33	27	66	20	73	76	42	64
Housing Burden	21	80	30	65	65	90	65	31	38

Source: CalEnvironScreen 3.0 the Office of Environmental Health Hazard Assessment, June 2018.

Note: Census tracts with a population characteristics percentile of 75 or greater is highlighted in red, indicating these areas are within the top 25 percentiles in the State regarding population characteristics.



**7 out of 9 census tracts in the Planning Area have a higher rate of cardiovascular disease than 80% of other census tracts in California**



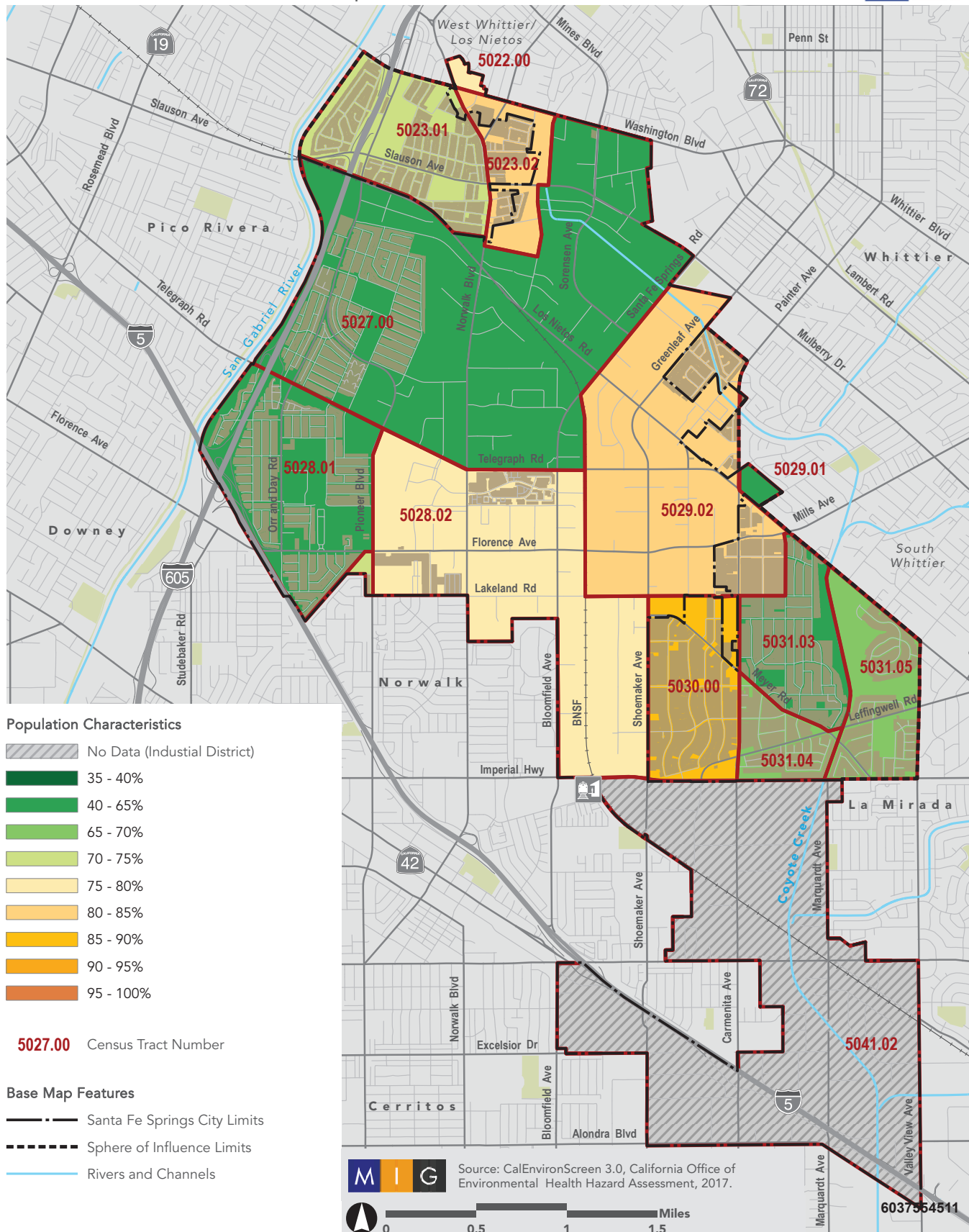
**Air pollution and particulate matters (PM) have been closely associated with adverse health effects such as respiratory disease and cardiovascular diseases**

Source: National Center for Biotechnology Information, U.S. National Library of Medicine, 2014.



Figure 6-4: Population Characteristics

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Population Characteristics above 75, at the top 25% of the State census tracts, are noted and provided descriptions below.



**Cardiovascular Disease.** Cardiovascular disease can lead to acute myocardial infarction (heart attack) and other heart problems, and is the leading cause of death both in California and the United States. Survivors of a cardiovascular event are highly vulnerable to future cardiovascular events, especially following short- or long-term exposure to particulate matter.



**Educational Attainment.** Studies have found that communities of more educated people are less polluted. Adults with less education have more pollution-related health problems. They are more likely to die from the effects of air pollution.



**Linguistic Isolation.** A high degree of linguistic isolation, or difficulty speaking English, among members of a community can limit access to health information and public services, as well as ability to effectively engage with regulations. People with limited English are also less likely to receive regular medical care and mental health services.



**Poverty.** Members of poor communities are more likely to be exposed to pollution and to suffer from health effects as a result of that exposure than residents of richer communities. Income can affect health when people cannot afford healthy living and working conditions, nutritious food, and necessary medical care. Poor communities are often located in areas with high levels of pollution. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution.



**Housing Burden.** Housing affordability is an important determinant of health and well-being. Residents of low-income households with high housing costs may suffer adverse health impacts. The fraction of low-income households paying more than 50% of their income on housing is on the rise. The housing burden indicator takes into account the regional cost of living for both homeowners and renters and includes the cost of utilities.



## Key Considerations

- The City's six pollution indicators are ranked at highest scores (95-100) out of more than 8,000 census tracts in the state. With the exception of PM<sub>2.5</sub>, the description suggests that proximity of residents to these sites are contributing factors.
- Cleanup Sites, Hazardous Waste, Groundwater Threats, Solid Waste Facilities, Toxic Release Inventory, and PM<sub>2.5</sub> are all pollution categories that rank very high in the City and are generally associated with industrial uses, hazardous waste generation, contaminated sites, and emissions from proximity to freeways and truck routes.
- Santa Fe Springs ranks high in the state with incidences of cardiovascular disease. Certain areas of the City's Sphere of Influence ranks high with asthma and low birth weight.
- Santa Fe Springs ranks high in the state with incidences of cardiovascular disease. Certain portions of the City ranks higher with asthma and low birth weight.
- Certain portions of the City have lower education attainment rates and higher rates of linguistic isolation, poverty, and housing burdens than other portions of the City.



## HEALTH AND WELLNESS

This Health and Wellness section presents data and analysis that identifies the relationship between economic, education, healthcare, housing, transportation, and environmental decisions and their effects on health and wellness of disadvantaged communities and populations that have historically experienced inequities, institutionalized racism, exclusion, and/or isolation.

### Healthy Places Index

Everyone should have the opportunity to be healthy. One's health is shaped dramatically by community characteristics—like housing, education, economic, and other social factors—which often are themselves shaped through policy. The California Healthy Places Index (HPI) combines 24 community characteristics into a single indexed HPI Score; see Table 6-6. The scores are displayed in quartiles, allowing for straightforward comparisons within a specific geography and across the State. The results shown in Table 6-7 can be used to explore, identify, and strategize existing healthy community conditions. Ultimately, the General Plan will explore opportunities to improve these conditions.

### The California Healthy Places Index

*The California Healthy Places Index (HPI) is a powerful new tool, developed by the Public Health Alliance of Southern California (Alliance) in partnership with the Virginia Commonwealth University's Center on Society and Health, that can be used to explore and change those community conditions that predict life expectancy. It contains user-friendly mapping and data resources at the census tract level across California. The HPI also provides scores based on community conditions to allow for comparisons between areas, as well as deeper dives on conditions in any given area.*

**Table 6-6: Healthy Places Index Indicators**

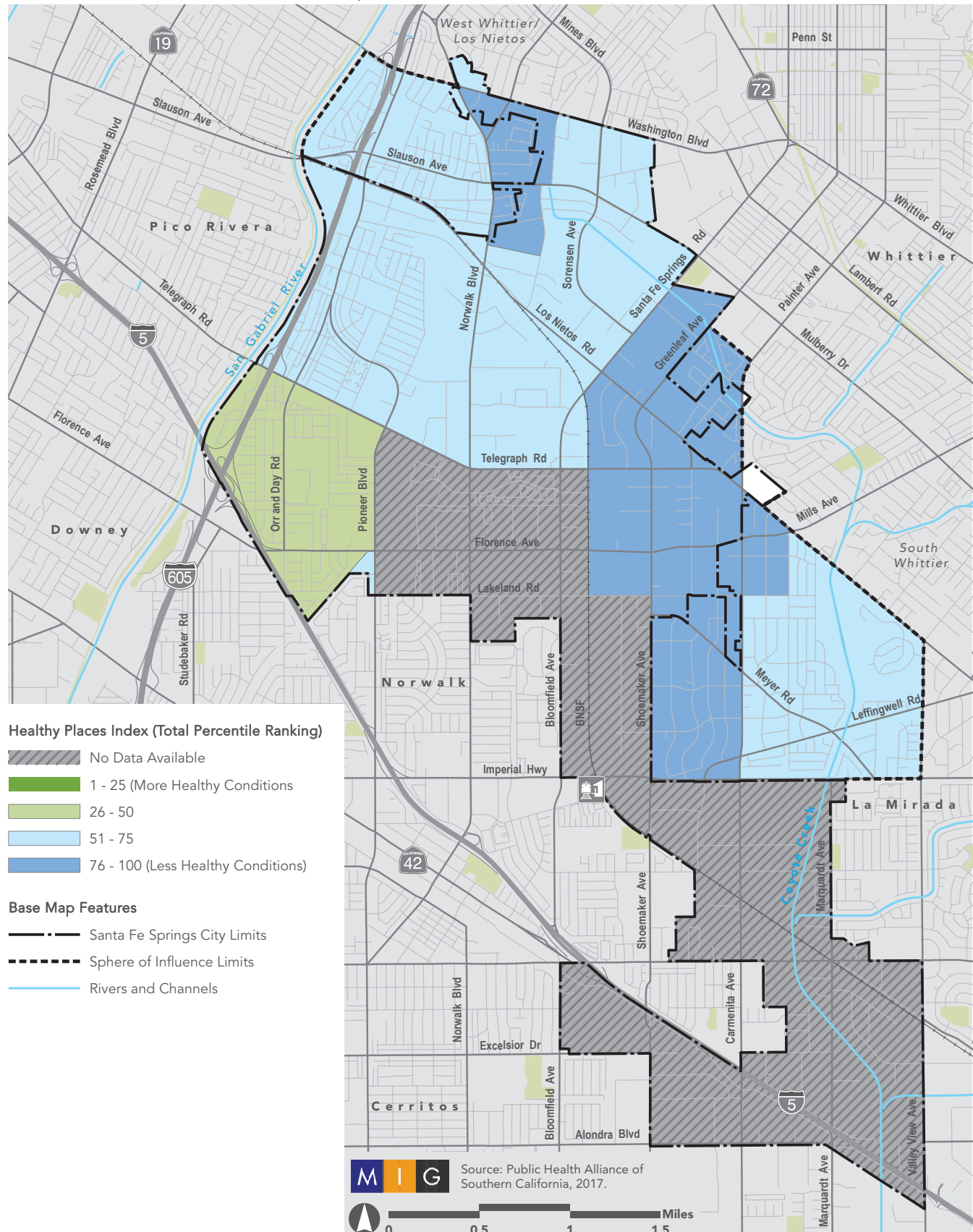
<b>Economic (32%)</b> <ul style="list-style-type: none"> <li>» Above Poverty</li> <li>» Employed</li> <li>» Median Household Income</li> </ul>	<b>Education (19%)</b> <ul style="list-style-type: none"> <li>» Pre-School Enrollment</li> <li>» High School Enrollment</li> <li>» Bachelors Attainment</li> </ul>	<b>Healthcare (5%)</b> <ul style="list-style-type: none"> <li>» Insured Adults</li> </ul>
<b>Housing (5%)</b> <ul style="list-style-type: none"> <li>» Severe Housing Costs Burden</li> <li>» Homeownership</li> <li>» Housing Habitability</li> <li>» Uncrowded Housing</li> </ul>	<b>Clean Environment (5%)</b> <ul style="list-style-type: none"> <li>» Clean Air - Diesel PM</li> <li>» Clean Air - Ozone</li> <li>» Clean Air - PM 2.5</li> <li>» Safe Drinking Water – Contaminants</li> </ul>	<b>Neighborhood (8%)</b> <ul style="list-style-type: none"> <li>» Retail Density</li> <li>» Supermarket Access</li> <li>» Parks</li> <li>» Tree Canopy</li> <li>» Alcohol Establishments Availability</li> </ul>
<b>Social (10%)</b> <ul style="list-style-type: none"> <li>» Two Parent Household</li> <li>» Voting</li> </ul>	<b>Transportation (16%)</b> <ul style="list-style-type: none"> <li>» Active (Healthy) Commuting</li> <li>» Automobile Access</li> </ul>	

Source: The California Healthy Places Index (HPI), Public Health Alliance of Southern California, 2020.

# Figure 6-5: Healthy Places Index



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According to Table 6-7, the City scored low, compared to other California cities, in severe housing costs burden, uncrowded housing, clean air (diesel PM), clean air (PM2.5), two-parent household, and voting .

**Table 6-7: Healthy Places Index Indicators Percentile Scores`**

Healthy Places Index Indicators Percentile	Healthy Places Index Categories							
	Economic	Education	Healthcare	Housing	Neighborhood	Clean Environment	Social	Transportation
Above Poverty	45.2							
Employed	44.2							
Median Household Income	52.7							
Pre-School Enrollment		56.1						
High School Enrollment		67.8						
Bachelors Attainment		21.3						
Insured Adults			29.6					
Severe Housing Costs Burden				18.2				
Homeownership				52.2				
Housing Habitability				71.3				
Uncrowded Housing				11.4				
Retail Density					74.7			
Supermarket Access					91.2			
Parks					65.5			
Tree Canopy					33.7			
Alcohol Establishments Availability					21.9			
Clean Air - Diesel PM						6.5		
Clean Air - Ozone						59.6		
Clean Air - PM2.5						17.0		
Safe Drinking Water – Contaminants						30.1		
Two Parent Household							14.8	
Voting							14.0	
Active (Healthy) Commuting								36.4
Automobile Access								42.1

Source: The California Healthy Places Index (HPI), Public Health Alliance of Southern California, 2020.



## Comparative Health Indicators

According to HPI data, Santa Fe Springs has healthier community conditions than only 35% of other California cities (meaning that 65% of other cities in California have healthier community conditions). See Table 6-8 for a comparison of Santa Fe Springs to surrounding communities (with higher scores being more favorable).

## General Health Conditions

Table 6-9 provides health estimates for California's diverse population at the local level (ZIP codes and cities). The estimates are part of California Health Interview Survey (CHIS), the largest state health survey in the United States; this is a project by the UCLA Health Policy Center. Survey respondents in Santa Fe Springs show comparatively worse outcomes, indicating lower healthy personal conditions than the County. Asthma, diabetes, obesity, and being overweight exceed Los Angeles County numbers.

Table 6-8: HPI Scores of Surrounding Communities

City and Community	Healthy Places Index Score
La Habra Heights	91.0
La Mirada	66.5
Hacienda Heights	61.2
Carson	55.9
Whittier	53.9
La Habra	50.4
Downey	48.2
<b>LA County: West Whittier (Los Nietos)</b>	<b>44.0</b>
<b>City of Industry</b>	42.5
<b>La County: South Whittier</b>	<b>39.1</b>
Norwalk	40.3
Pico Rivera	37.4
Irwindale	37.2
<b>Santa Fe Springs</b>	<b>35.0</b>
Montebello	24.5
Commerce	18.9
Bell Gardens	8.5

Source: The California Healthy Places Index (HPI), Public Health Alliance of Southern California, 2020.

Table 6-9: Health Conditions

Health Conditions (2016) for Population Age 18 and Older (unless indicated)	Santa Fe Springs	South Whittier	West Whittier-Los Nietos	Los Angeles County
<b>General Health</b>				
Fair or poor health (18-64)	27.1%	<b>28.1%</b>	<b>29.7%</b>	<b>20.6%</b>
Needed help for mental health problems	<b>15.5%</b>	<b>17.1%</b>	<b>15.9%</b>	<b>16.5%</b>
Delayed prescriptions/medical services	17.5%	<b>18.5%</b>	18.2%	<b>19.7%</b>
Serious psychological distress	8.6%	<b>9.1%</b>	9.2%	<b>8.6%</b>
Work impairment	8.7%	<b>9.1%</b>	8.6%	<b>9.8%</b>
<b>Asthma and Diabetes</b>				
Ever diagnosed with asthma	13.6%	<b>13.3%</b>	12.7%	<b>12.8%</b>
Ever diagnosed with asthma (age 1 to 17)	20.6%	<b>20.5%</b>	20.3%	<b>12.8%</b>
Ever diagnosed with diabetes	12.7%	<b>11.8%</b>	12.8%	<b>9.5%</b>

Source: AskCHIS Neighborhood Edition, California Health Interview Survey (CHIS), UCLA, 2016.





## Health Insurance and Healthcare Access

Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans. People without medical insurance are more likely to lack a usual source of medical care, such as a primary care provider, and are more likely to skip routine medical care due to costs, increasing their risk for serious and disabling health conditions. When they do access health services, they are often burdened with large medical bills and out-of-pocket expenses. Increasing access to both routine medical care and medical insurance are vital steps toward improving the health of all Americans.

Table 6-10 below shows the percentage of Santa Fe Springs' population with health insurance coverage.

Health insurance coverage is critical to help lessen the burden of pollution on disadvantaged populations. Health treatment and education would also help promote healthier outcomes.

Santa Fe Springs residents generally have good access to regional hospital and urgent care facilities, see Figure 6-6. Local hospitals within several miles of the City include PIH in Whittier, Norwalk Community Hospital, Coast Plaza Hospital in Norwalk, Kaiser Permanente in Downey, and the Kindred Hospital in La Mirada. Additionally, the City provides transportation to medical and dental appointments for residents 60 years and older and for persons with disabilities. Transportation is provided to medical facilities in Downey, Norwalk, Pico Rivera, Santa Fe Springs, Whittier, and Bellflower.

**Table 6-10: Health Insurance**

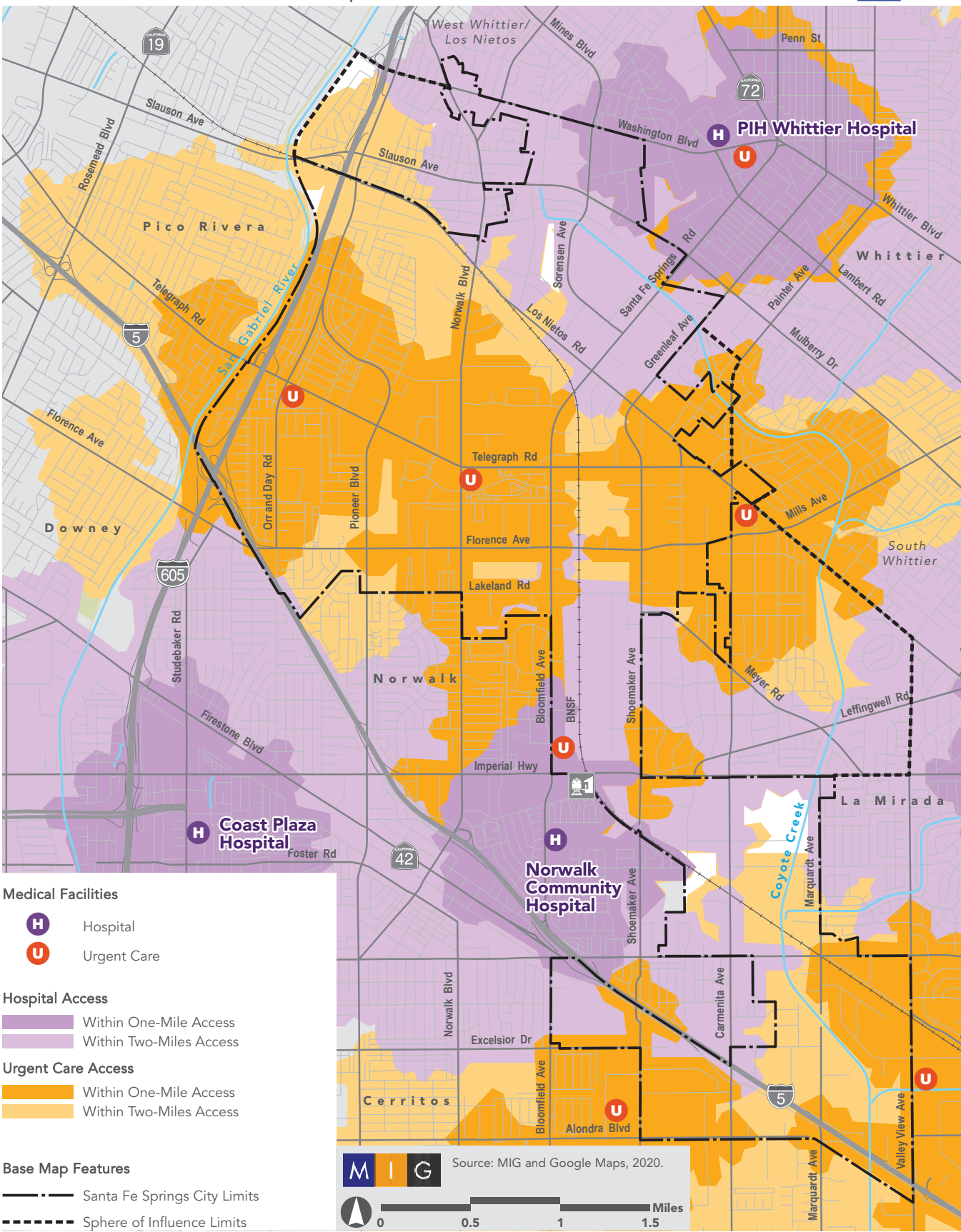
Health Insurance Status	Santa Fe Springs		LA County
	Percent	Percent	Percent
<b>Total Population</b>	<b>17,734</b>	<b>100.0%</b>	<b>100%</b>
<b>With Health Insurance Coverage</b>	<b>16,276</b>	<b>91.8%</b>	<b>91.0%</b>
With private health insurance	11,184	63.1%	58.2%
With public coverage	6,090	34.3%	39.7%
No Health Insurance Coverage	1,458	8.2%	9.0%
<b>Age - With Health Insurance Coverage</b>			
Under 19 years	4,169	96.9%	96.5%
19-64 years	9,632	88.0%	87.3%
65 years and older	2,475	99.6%	98.6%
<b>Race and Ethnicity - With Health Insurance Coverage</b>			
Hispanic/Latino (of any race)	11,858	90.0%	86.9%
White Alone	2,201	97.0%	95.3%
Asian Alone	1,169	96.2%	94.5%
<b>Nativity and U.S. Citizenship Status - With Health Insurance Coverage</b>			
Native Born	12,129	96.6%	94.3%
Foreign Born – Naturalized Citizen	2,932	93.3%	94.5%
Foreign Born – Not a Citizen	1,215	74.2%	73.5%

Source: U.S. Census, American Community Survey, 2018.

# Figure 6-6: Hospital and Urgent Care Access



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## Food Insecurity and Grocery Store Access

The U.S. Department of Agriculture defines food insecurity as a lack of consistent access to enough food for an active, healthy life. It is important to know that although hunger and food insecurity are closely related, they are distinct concepts. Hunger refers to a personal, physical sensation of discomfort, while food insecurity refers to a lack of available financial resources for food at the household level. Food insecurity occurs in households with incomes less than 300% of the federal poverty level. Table 6-11 shows food insecurity using this metric.

A household being unable to afford sufficient, quality food correlates with experiences of unemployment and poverty. Participation in programs designed to address hunger, such as the Supplemental Nutrition Assistance Program (SNAP or food stamps), rises in response to food insecurity. Approximately 7.8% of households in Santa Fe Springs receive Food Stamps/SNAP (also known as CalFresh, California's food stamp program). SNAP can buffer participants against food insecurity and poor health.

Additionally, the Supplemental Security Income (SSI) is a federal income supplement program designed to help aged, blind, and disabled people who have little or no income and to meet basic needs for food, clothing, and shelter. Participation in disability assistance programs is relatively high among adults with disabilities, particularly those who are unable to work due to their disability. Food insecurity was more prevalent among SSI recipients, including higher rates of food insecurity due to more severe disabilities. Six percent of the City's households receives SSI income.

Additionally, the City manages a community garden on City property. A local food bank that services local residents can assist in minimizing food insecurity access for low-income households.

**Table 6-11: Income and Public Assistance**

Income/Public Assistance within last 12 months	Households		
	Santa Fe Springs		LA County
	Number	Percent	Percent
<b>Retirement Income</b>			
Social Security Income	1,670	32.0%	25.2%
Retirement Income	795	15.3%	11.6%
Supplemental Security Income (SSI)	320	6.1%	6.9%
<b>Public Assistance</b>			
Public Assistance Income	202	3.9%	3.2%
Food Stamp/SNAP Benefits	408	7.8%	8.3%
<b>Unemployment and Poverty</b>			
Unemployment <sup>1</sup>	577	4.1%	6.8%
Poverty Rate	2,353	13.3%	14.1%

Source: U.S. Census, American Community Survey, 2018.

Note: These numbers do not reflect coronavirus disease (COVID-19) pandemic of 2020.





### Food Pantry

Located in Santa Fe Springs, Interfaith Food Center is one of the largest food pantries in California, serving more than 1,300 households on a weekly basis from a 6,800-square-foot warehouse/distribution facility. It serves Whittier, La Mirada, Santa Fe Springs, and the surrounding communities. Programs include homeless lunch program, where homeless individuals receive a daily sack lunch and food distribution program for families that meet the federal poverty level.



**1,300**  
households are  
served on a weekly  
basis in Whittier,  
La Mirada, and  
Santa Fe Springs

### Community Garden

The City of Santa Fe Springs has established a community garden on City-owned property south of Telegraph Road and west of Pioneer Boulevard. The Community Garden has been divided into parcels of approximately 10 feet by 20 feet (200 square feet) to be used by residents who wish to harvest fruits, vegetables, and flowers. The Community Garden Program has been established as a recreational activity to be enjoyed by people who do not have gardening space available at home.



**127**  
plots are located  
in Santa Fe Springs  
Community  
Garden





## Free and Reduced-Price Meal

Table 6-12 provides information on free and reduced priced meals eligibility of schools in the Planning Area. Free and reduced-price meals are part of the National School Lunch Program (NSLP), a federally assisted meal program that provides free, nutritionally balanced lunches to children whose families meet eligibility income requirements. The NSLP provide nutritious foods that help reduce the harmful impact of food insecurity and

improve outcomes for children. Research sponsored by U.S. Department of Agriculture's Food and Nutrition Service found that children receiving free or reduced-price NSLP lunches consume fewer empty calories and more fiber, milk, fruit, and vegetables than income-eligible nonparticipants, both at lunch and during a full 24 hours. Free and reduced-price school meals also free up some household resources for other necessary purchases.

**Table 6-12: Free or Reduced-Price Meal**

School Districts and Schools	Enrollment (2018-2019)	Student Percentage Eligible for Free or Reduced-Price Meal
<b>Little Lake Elementary School District</b>		
Jersey Avenue Elementary School	442	67%
Lakeview Elementary School	508	62%
Lake Center Middle School	906	67%
<b>Los Nietos Elementary School District</b>		
Ada S. Nelson Elementary School	407	89%
Aeolian Elementary School	414	91%
Rancho Santa Gertrudes Elementary School	358	83%
Los Nietos Middle School	374	86%
<b>South Whittier Elementary School District</b>		
Carmela Elementary School	389	91%
Loma Vista Elementary School / Monte Vista Middle School	705	91%
Los Altos School	331	90%
Richard Graves Middle School	678	83%
<b>Whittier Union High School</b>		
Pioneer High School	1,217	84%
Santa Fe High School	2,156	73%
<b>Los Angeles County Average</b>	--	72%
<b>California Average</b>	--	59%

Source: California Department of Education, Free or Reduced Price Meals, 2020.



## Grocery Store Access

Limited access to supermarkets, supercenters, grocery stores, and other sources of healthy and affordable food may make it harder for some residents to eat a healthy diet. Expanding the availability of nutritious and affordable food by developing and equipping grocery stores, small retailers, corner markets, and farmers' markets in communities with limited access is an important part of creating a healthy community. Food deserts are areas in which it is difficult to buy affordable or good-quality fresh food. To define food deserts in Santa Fe Springs, the following indicators of access are used, as defined by the U.S. Department of Agriculture:

- Accessibility to sources of healthy food, as measured by distance to a store or by the number of stores in an area
- Individual-level resources that may affect accessibility, such as family income or vehicle availability
- Neighborhood-level indicators of resources, such as the average income of the neighborhood and the availability of public transportation

Map 6-7 show the grocery locations in the City that are distant from its residential neighborhoods . The map also identifies several census tracts that include:

- A poverty rate of 20% or higher, or with a median family income less than 80% of median family income for Los Angeles County
- More than 100 households have no access to a vehicle
- A significant number of residents located more than one-half mile from the nearest supermarket



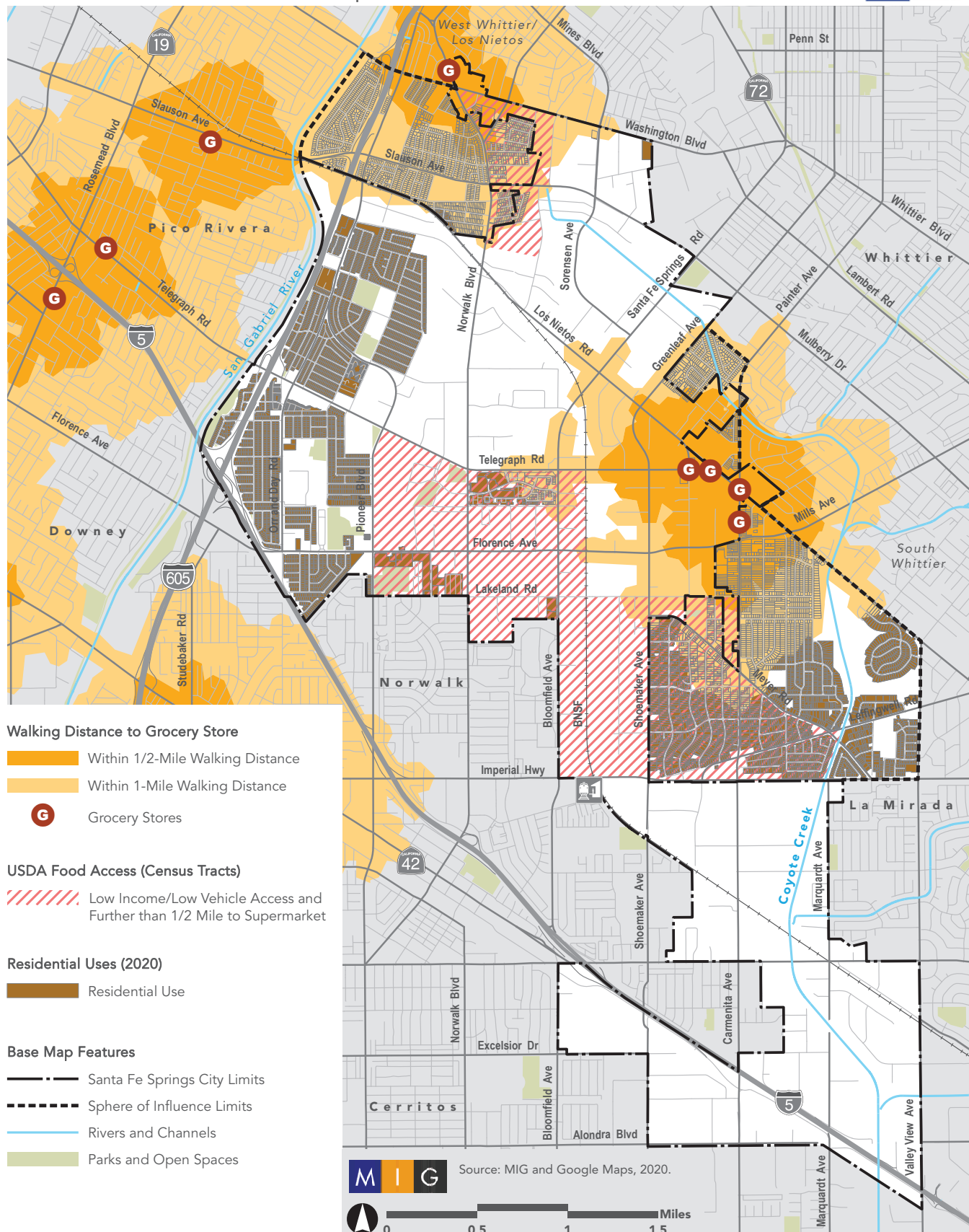
*Aldi, located at Telegraph Road and Painter Avenue, opened in 2017, however no grocery store serves the residential neighborhoods west of Norwalk Boulevard.*



Figure 6-7: Grocery Store Access



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## Physical Activity

Research demonstrates that participating in regular moderate to vigorous physical activity provides many health benefits. Some benefits of physical activity can be achieved immediately, such as reduced feelings of anxiety, reduced blood pressure, improvements in sleep, some aspects of cognitive function, and insulin sensitivity. Other benefits, such as increased cardiorespiratory fitness, increased muscular strength, decreases in depressive symptoms, and sustained reduction in blood pressure require a few weeks or months of participation in physical activity. Physical activity can also slow or delay the progression of chronic diseases, such as hypertension and type 2 diabetes. Benefits persist with continued physical activity.

Table 6-13 shows the level of self-reported physical activity in the City and surrounding areas per the CHIS survey. Compared to Los Angeles County, respondents in Santa Fe Springs have higher physical activity levels among children and adults 18 and over are as likely to walk at least 150 minutes.

## Access to Parks

Parks, playgrounds, greenways, trails, and community open spaces help keep residents fit and healthy. All people need physical activity to maintain fitness and health. Physical activity increases strength, flexibility, and endurance; relieves symptoms of depression and anxiety; improves mood; and enhances psychological well-being.

According to the Centers for Disease Control and Prevention (CDC), only 25% of American adults engage in recommended levels of physical activity, and 29% engage in no leisure-time physical activity at all. This sedentary lifestyle is contributing to an increased incidence of obesity along with obesity-related diseases, such as high blood pressure, diabetes, congestive heart failure, and stroke.

As one solution to the increased incidence of obesity, the CDC has called for more parks and playgrounds. Studies have shown that when people have access to parks, they exercise more. Parks provide children with opportunities for play, and play is critical in the development of muscle strength and coordination, language, and cognitive abilities.

In Santa Fe Springs, 77% of City residents live within one-quarter mile—or a five-minute walk—of a City or County park, and 91% of City residents live within one-half mile, or a 10-minute walk. Residents within adjacent County unincorporated areas appear to enjoy less access to parks, with only 7% of residents within a five -minute walk and 15% living within one-half mile.



**91%**  
of City residents  
live within a  
10-minute walk of  
a park

**Table 6-13: Weight and Physical Activity**

Weight and Physical Activity (2016)	Santa Fe Springs	South Whittier	West Whittier-Los Nietos	Los Angeles County	California
Obese Adults (BMI> 30 (18+))	38.9%	40.4%	40.7%	28.9%	28.0%
Overweight or Obese Teens (12-17)	34.2%	33.9%	36.2%	35.5%	38.2%
Overweight Children (age 2 to 11)	19.5%	19.7%	19.6%	12.1%	15.1%
Regular Physical Activity (age 5 to 17)	19.6%	19.3%	19.8%	14.3%	16.5%
Walked at least 150 minutes in Past Week (age 18+)	38.4%	37.6%	37.1%	38.4%	38.9%

Source: AskCHIS Neighborhood Edition, California Health Interview Survey (CHIS), UCLA, 2016.



## City Healthy Programs

### Health and Wellness Initiative

The purpose of the Health & Wellness Initiative is to educate and empower the Santa Fe Springs community to improve and maintain overall health and well-being, and to advocate for a healthy community culture. The initiative is applied to the core operations within the three City Divisions in the Community Services Department. Some of the strategies include a community garden, a Fun Run, a wellness audio library collection, a Healthy Family Fun Night, and healthy vending machines.

### Other Programs

The City became a HEAL (Healthy Eating Active Living) City in 2015 and receives technical support from the Heal Cities Campaign to develop and implement more health-related policies. Kaiser Permanente launched the Healthy Eating Active Living (HEAL) initiative in 2004 to address the obesity epidemic and the many health issues that can be a byproduct of poor nutrition and inactivity. A multifaceted strategy, the program combines health care leadership, community partnership, and public policy strategies to reduce the rate of obesity in their communities.

The City also collaborates with The Whole Child's Champions for Change to offer nutrition educational classes. The program focuses on low-budget healthy eating options and promoting physical activity. The Whole Child is a non-profit organization, established in 1957 by community members who saw a need for children in vulnerable communities.



## Key Considerations

- Santa Fe Springs has the lowest percentile scores, compared to other California cities, in severe housing costs burden, overcrowded housing, clean air (diesel PM), clean air (PM2.5), two parent household, and voting.
- Santa Fe Springs has healthier community conditions than 35% of other California cities.
- The City's rates of asthma, diabetes, obesity, and being overweight exceed Los Angeles County numbers.
- Health insurance coverage in the City is at 92%, slightly above the County's average, while foreign-born noncitizens have the lowest rates of health insurance at 74%.
- Residents have good access to local hospitals nearby and have health insurance coverage in line with Los Angeles County's average. Foreign born residents who are not U.S. citizens have the lowest percentage of health insurance rates.
- The City has a higher proportion of residents than Los Angeles County that receive Social Security and retirement income, including some disability income, which tend to have higher rates of food insecurity.
- Residents in the western portion of the City live further than one-half mile from a grocery store.
- Obesity and overweight rates for adults, teens, and children are generally higher than residents in Los Angeles County.
- Regular physical activity in children is generally higher than the County.
- Most residents, at least 84%, live within a half-mile walking distance to a recreational park in the City, while 54% of residents living within the Sphere of Influence live within a half-mile walking distance of a park.

## Appendix D: AQ, Energy, and GHG Analysis Data

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## FACILITY DETAILS

### Facility Information

Facility Name : Asen Auto Inc.      Facility ID : 191068  
 Street : 12626 Carmenita Rd      [SIC Code](#) : 7531  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 926-8478  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

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[Program Status](#) : I

## Emissions Data

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## FACILITY DETAILS

### Facility Information

Facility Name : Associated Plating Co Inc      Facility ID : 121756  
 Street : 9636 Ann St      [SIC Code](#) : 3471  
 City : Santa Fe Springs      Zip : 90670 2995  
 Phone : (562) 946-5525  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
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## FACILITY DETAILS

### Facility Information

Facility Name : Best Auto Body, Rosa D Rubio DbA      Facility ID : 139180  
 Street : 10638 Painter Ave F      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 906-5055  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
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## FACILITY DETAILS

### Facility Information

Facility Name : Big Rig Collision Center, Llc      Facility ID : 182682  
 Street : 13710 Bora Dr      [SIC Code](#) : 7629  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 926-7722  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

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[Program Status](#) : I

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## FACILITY DETAILS

### Facility Information

Facility Name : Bolero Plastics      Facility ID : 114966  
 Street : 11850 Burke St      SIC Code : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 693-3000  
County : Los Angeles  
Air Basin : South Coast  
District : South Coast Aqmd

<u>Facility Prioritization</u>	<u>Inventory Year</u>	<u>Above High Threshold?</u>	<u>District Prioritization Threshold</u>	
			<u>High</u>	<u>Low</u>
<u>Cancer Prioritization</u>			10	1
<u>Chronic Prioritization</u>			10	1
<u>Acute Prioritization</u>			10	1

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<u>Chronic Hazard Index</u>			>1; lead THI >.5	3
<u>Acute Hazard Index</u>			>1; lead THI >.5	3

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Program Status : I

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## FACILITY DETAILS

### Facility Information

Facility Name : Broski's Body & Paint      Facility ID : 169625  
 Street : 10918 S Norwalk Blvd #d      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 946-5391  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
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<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
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## FACILITY DETAILS

### Facility Information

Facility Name : Cal-tron Plating Inc      Facility ID : 1953  
 Street : 11919 Rivera Rd      [SIC Code](#) : 3471  
 City : Santa Fe Springs      Zip : 90670 2209  
 Phone : (310) 945-1181  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
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## FACILITY DETAILS

### Facility Information

Facility Name : Coastal Tag, Inc.      Facility ID : 91475  
 Street : 13233 Barton Cir      [SIC Code](#) : 2759  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (213) 946-4318  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
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## FACILITY DETAILS

### Facility Information

Facility Name : Concept Auto Design      Facility ID : 188201  
 Street : 8107 Allport Ave      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670 2103  
 Phone : (818) 267-0626  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
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## FACILITY DETAILS

### Facility Information

Facility Name : Continental Heat Treating Inc      Facility ID : 20017  
 Street : 10643 S Norwalk Blvd      [SIC Code](#) : 3398  
 City : Santa Fe Springs      Zip : 90670 3821  
 Phone : (562) 944-8808  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
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## FACILITY DETAILS

### Facility Information

Facility Name : Cosby Oil Co      Facility ID : 42098  
 Street : 12902 E Park St      [SIC Code](#) : 2911  
 City : Santa Fe Springs      Zip : 90670 4097  
 Phone : (562) 946-4404  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

### Emissions Data

#### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Ecology Auto Wrecking Inc      Facility ID : 98933  
 Street : 12927 Marquardt      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (566) 404-8683  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

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## FACILITY DETAILS

### Facility Information

Facility Name : Elite Manufacturing Corporation      Facility ID : 115476  
 Street : 12143 Altamar Pl      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (714) 342-2841  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : U

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Everyrim.com Llc      Facility ID : 186771  
 Street : 12078 Florence Ave      [SIC Code](#) : 5531  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 351-4838  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : First Auto Service      Facility ID : 115956  
 Street : 10924 Norwalk Blvd      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 426-3453  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Freestone Auto Body & Paint, Inc      Facility ID : 181139  
 Street : 13659 Pumice St      [SIC Code](#) : 7534  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (310) 402-8304  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I**Emissions Data****Zero Emissions or No Facility Data Found**

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : G & M Oil Co, Llc #66      Facility ID : 116017  
 Street : 11770 Washington Blvd      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90606  
 Phone : (714) 375-4700  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : International Paper      Facility ID : 14625  
 Street : 11211 Greenstone Ave      [SIC Code](#) : 2653  
 City : Santa Fe Springs      Zip : 90670 4616  
 Phone : (323) 720-6270  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : International Paper      Facility ID : 173258  
 Street : 9211 Norwalk Blvd      [SIC Code](#) : 2653  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 692-9465  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

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## FACILITY DETAILS

### Facility Information

Facility Name : Kickstart Motorsports, Inc      Facility ID : 189981  
 Street : 12316 Bell Ranch Dr      [SIC Code](#) : 3714  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (877) 298-8398  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

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[Program Status](#) : I

### Emissions Data

#### Zero Emissions or No Facility Data Found

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## FACILITY DETAILS

### Facility Information

Facility Name : Martin E-z Stick Labels Inc      Facility ID : 122088  
 Street : 12921 Sunnyside Pl      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 906-1577  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

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[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

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## FACILITY DETAILS

### Facility Information

Facility Name : Mckinley Packaging La Company      Facility ID : 179547  
 Street : 13820 Mica St      [SIC Code](#) : 2653  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 447-5553  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

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[Program Status](#) : I

## Emissions Data

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## FACILITY DETAILS

### Facility Information

Facility Name : Menasha Packaging Corp-santa Fe Springs      Facility ID : 186479  
 Street : 8110 Sorenson Ave      [SIC Code](#) : 2653  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 464-1534  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

### Emissions Data

#### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Mike Thompson's Rv Body Shop      Facility ID : 22376  
 Street : 13940 Firestone Blvd      [SIC Code](#) : 5561  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (310) 921-0955  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

### Emissions Data

#### Zero Emissions or No Facility Data Found

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## FACILITY DETAILS

### Facility Information

Facility Name : Precision Control Finishing, Inc.      Facility ID : 130017  
 Street : 12150 S Bloomfield Ave #d      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 484-3930  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Sonic Plating Co, Inc      Facility ID : 1808  
 Street : 13002 Los Nietos Rd      [SIC Code](#) : 3471  
 City : Santa Fe Springs      Zip : 90670 3014  
 Phone : (213) 946-6303  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

### Emissions Data

#### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Steven Label Corporation      Facility ID : 172972  
 Street : 9046 Sorenson St      [SIC Code](#) : 2759  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 236-4711  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Superprint Lithographics Inc    Facility ID : 151544  
 Street : 8332 Secura Way    [SIC Code](#) : 9999  
 City : Santa Fe Springs    Zip : 90670  
 Phone : (323) 722-2361  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : The Ink Spot, Inc.      Facility ID : 178858  
 Street : 9737 Bell Ranch Dr      [SIC Code](#) : 9999  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (626) 338-4500  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Trident Plating Inc      Facility ID : 125265  
 Street : 10046 Romandel Ave      [SIC Code](#) : 3471  
 City : Santa Fe Springs      Zip : 90670 3424  
 Phone : (562) 906-2556  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Bodycote Thermal Processing      Facility ID : 70748  
 Street : 9921 Romandel Ave      [SIC Code](#) : 3398  
 City : Santa Fe Springs      Zip : 90670 3436  
 Phone : (562) 946-1717  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.8	Tons/Yr
	<a href="#">ROG</a>	0.3	Tons/Yr
	<a href="#">CO</a>	1.7	Tons/Yr
	<a href="#">NOX</a>	4.5	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.4	Tons/Yr
	<a href="#">PM10</a>	0.4	Tons/Yr
	<a href="#">PM2.5</a>	0.4	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0.8	Lbs/Yr
	<a href="#">Formaldehyde</a>	1.7	Lbs/Yr
	<a href="#">NH3</a>	1766	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.



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**FACILITY DETAILS****Facility Information**

Facility Name : Breitburn Operating Lp      Facility ID : 150201  
 Street : 10735 S Shoemaker Ave      [SIC Code](#) : 1311  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (213) 905-2168  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : South Coast Aqmd

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : U**Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	34.2	Tons/Yr
	<a href="#">ROG</a>	11.7	Tons/Yr
	<a href="#">CO</a>	10.2	Tons/Yr
	<a href="#">NOX</a>	2	Tons/Yr
	<a href="#">SOX</a>	0.1	Tons/Yr
	<a href="#">PM</a>	0.3	Tons/Yr
	<a href="#">PM10</a>	0.3	Tons/Yr
	<a href="#">PM2.5</a>	0.3	Tons/Yr

**TOXIC DATA MAY COME FROM VARIOUS YEARS**

<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	11.6	Lbs/Yr
	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	227.7	Lbs/Yr
	<a href="#">CCl4</a>	1.6	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">DieselExhPM</a>	33.4	Lbs/Yr
	<a href="#">EDB</a>	1.9	Lbs/Yr
	<a href="#">EDC</a>	1	Lbs/Yr
	<a href="#">Formaldehyde</a>	2286.1	Lbs/Yr
	<a href="#">Lead</a>	0	Lbs/Yr
	<a href="#">Methylene Chlor</a>	0.8	Lbs/Yr
	<a href="#">NH3</a>	147.1	Lbs/Yr
	<a href="#">Naphthalene</a>	0.4	Lbs/Yr
	<a href="#">Nickel</a>	0	Lbs/Yr

## Facility Detail Risk Selection (ARB)

<a href="#">PAHs-w/o</a>	5.8	Lbs/Yr
<a href="#">Vinyl Chloride</a>	0.6	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Brunton Enterprises Inc,plas Tal Mfg Co      Facility ID : 2467  
 Street : 8815 S Sorensen St      [SIC Code](#) : 3441  
 City : Santa Fe Springs      Zip : 90670 2687  
 Phone : (562) 945-0013  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.3	Tons/Yr
	<a href="#">ROG</a>	0.3	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.2	Tons/Yr
	<a href="#">PM10</a>	0.2	Tons/Yr
	<a href="#">PM2.5</a>	0.2	Tons/Yr

### [TOXIC DATA MAY COME FROM VARIOUS YEARS](#)

<a href="#">Download CSV file</a>	<a href="#">Nickel</a>	0	Lbs/Yr
---------------------------------------	------------------------	---	--------

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : California Portland Cement Co      Facility ID : 10006  
 Street : 13846 Firestone Blvd      [SIC Code](#) : 5032  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (626) 852-6264  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0	Tons/Yr
	<a href="#">ROG</a>	0	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

#### [TOXIC DATA MAY COME FROM VARIOUS YEARS](#)

<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	0	Lbs/Yr
	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">DieselExhPM</a>	1	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.1	Lbs/Yr
	<a href="#">Lead</a>	0	Lbs/Yr
	<a href="#">NH3</a>	0.1	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">Nickel</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic

emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Electronic Chrome Grinding Co, Inc      Facility ID : 10005  
 Street : 9128-32 Dice Rd      [SIC Code](#) : 3471  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 946-6671  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>	2001	3	>=10	25
<a href="#">Chronic Hazard Index</a>	2001	.06	>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>	2001	.24	>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : F**Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b> <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0	Tons/Yr
	<a href="#">ROG</a>	0	Tons/Yr
	<a href="#">CO</a>	0.1	Tons/Yr
	<a href="#">NOX</a>	0.2	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	0	Lbs/Yr
	<a href="#">NH3</a>	9.3	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion

of the PM10 shown is considered to be diesel exhaust  
PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Goodrich Corporation      Facility ID : 11998  
 Street : 11120 S Norwalk Blvd      [SIC Code](#) : 3728  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 906-7347  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	2.7	Tons/Yr
	<a href="#">ROG</a>	1.3	Tons/Yr
	<a href="#">CO</a>	2.2	Tons/Yr
	<a href="#">NOX</a>	1.3	Tons/Yr
	<a href="#">SOX</a>	0.1	Tons/Yr
	<a href="#">PM</a>	2.8	Tons/Yr
	<a href="#">PM10</a>	2.1	Tons/Yr
	<a href="#">PM2.5</a>	1.7	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	0.8	Lbs/Yr
	<a href="#">2-MeNaphthalene</a>	0	Lbs/Yr
	<a href="#">Acenaphthene</a>	0	Lbs/Yr
	<a href="#">Acenaphthylene</a>	0	Lbs/Yr
	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">B[b]fluoranthene</a>	0	Lbs/Yr
	<a href="#">B[a]pyrene</a>	0	Lbs/Yr
	<a href="#">B[g,h,i]perylene</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	18.5	Lbs/Yr
	<a href="#">CCl4</a>	0	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Chrysene</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">DieselExhPM</a>	9.8	Lbs/Yr
	<a href="#">EDB</a>	0	Lbs/Yr

## Facility Detail Risk Selection (ARB)

<a href="#">EDC</a>	0	Lbs/Yr
<a href="#">Fluoranthene</a>	0	Lbs/Yr
<a href="#">Fluorene</a>	0	Lbs/Yr
<a href="#">Formaldehyde</a>	12.7	Lbs/Yr
<a href="#">Lead</a>	0	Lbs/Yr
<a href="#">Methylene Chlor</a>	0	Lbs/Yr
<a href="#">NH3</a>	509.1	Lbs/Yr
<a href="#">Naphthalene</a>	0.1	Lbs/Yr
<a href="#">Nickel</a>	0.2	Lbs/Yr
<a href="#">PAHs-w/o</a>	0.1	Lbs/Yr
<a href="#">Phenanthrene</a>	0	Lbs/Yr
<a href="#">Pyrene</a>	0	Lbs/Yr
<a href="#">Vinyl Chloride</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Heraeus Precious Metals No. America, Llc      Facility ID : 123774  
 Street : 13429 Alondra Blvd      [SIC Code](#) : 3341  
 City : Santa Fe Springs      Zip : 90670 5601  
 Phone : (562) 483-1830  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : U

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.7	Tons/Yr
	<a href="#">ROG</a>	0.5	Tons/Yr
	<a href="#">CO</a>	1.2	Tons/Yr
	<a href="#">NOX</a>	1.1	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	1.9	Tons/Yr
	<a href="#">PM10</a>	1.7	Tons/Yr
	<a href="#">PM2.5</a>	1.5	Tons/Yr

### TOXIC DATA MAY COME FROM VARIOUS YEARS

<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	0	Lbs/Yr
	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	0.3	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">DieselExhPM</a>	4.7	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.7	Lbs/Yr
	<a href="#">Lead</a>	0	Lbs/Yr
	<a href="#">Methylene Chlor</a>	0	Lbs/Yr
	<a href="#">NH3</a>	660.6	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">Nickel</a>	0.2	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year.

Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : J.s. Paluch Co, Inc      Facility ID : 61969  
 Street : 9400 Norwalk Blvd      [SIC Code](#) : 2731  
 City : Santa Fe Springs      Zip : 90670 2928  
 Phone : (800) 231-0805  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I**Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.4	Tons/Yr
	<a href="#">ROG</a>	0.4	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Lefiell Mfg Co      Facility ID : 22467  
 Street : 13700 Firestone Blvd      [SIC Code](#) : 3728  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 921-3411  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>	2000	1.7	>=10	25
<a href="#">Chronic Hazard Index</a>	2000	.17	>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>	2000	.75	>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : F**Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	2.2	Tons/Yr
	<a href="#">ROG</a>	1	Tons/Yr
	<a href="#">CO</a>	0.1	Tons/Yr
	<a href="#">NOX</a>	0.3	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

**TOXIC DATA MAY COME FROM VARIOUS YEARS**

<a href="#">Download CSV file</a>	<a href="#">Acetaldehyde</a>	0	Lbs/Yr
	<a href="#">Acrolein</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Ethyl Benzene</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.1	Lbs/Yr
	<a href="#">Hexane</a>	0	Lbs/Yr
	<a href="#">NH3</a>	88.3	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr
	<a href="#">Perc</a>	0	Lbs/Yr
	<a href="#">TCE</a>	0	Lbs/Yr
	<a href="#">Toluene</a>	0.2	Lbs/Yr
	<a href="#">Xylenes</a>	0.1	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year.

Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Maruichi American Corp      Facility ID : 9260  
 Street : 11529 S Greenstone Ave      [SIC Code](#) : 3317  
 City : Santa Fe Springs      Zip : 90670 4697  
 Phone : (562) 903-8600  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

**[Program Status](#) :****Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b> <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.1	Tons/Yr
	<a href="#">ROG</a>	0.1	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.5	Tons/Yr
	<a href="#">PM10</a>	0.3	Tons/Yr
	<a href="#">PM2.5</a>	0.3	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	0	Lbs/Yr
	<a href="#">NH3</a>	0.1	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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### FACILITY DETAILS

#### Facility Information

Facility Name : Moorea Investments      Facility ID : 159992  
 Street : Various Locations In Scaqmd      [SIC Code](#) : 8741  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 572-7114  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : South Coast Aqmd

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

#### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0	Tons/Yr
	<a href="#">ROG</a>	0	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">Lead</a>	0	Lbs/Yr
	<a href="#">Nickel</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : New Tangram Llc      Facility ID : 142498  
 Street : 9200 Sorensen Ave      [SIC Code](#) : 5021  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 365-5000  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

**[Program Status](#) :****Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.3	Tons/Yr
	<a href="#">ROG</a>	0.3	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Ptm&w Ind Inc      Facility ID : 20157  
 Street : 10640 S Painter Ave      [SIC Code](#) : 3083  
 City : Santa Fe Springs      Zip : 90670 4092  
 Phone : (562) 946-4511  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : South Coast Aqmd

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

**[Program Status](#) :****Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b> <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.3	Tons/Yr
	<a href="#">ROG</a>	0.2	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	703.1	Lbs/Yr
	<a href="#">NH3</a>	13	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Rahn's Furniture Refinishing, LLC      Facility ID : 141526  
 Street : 13729 Carmenita Rd      [SIC Code](#) : 7641  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 921-4922  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b> <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.1	Tons/Yr
	<a href="#">ROG</a>	0.1	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

### [TOXIC DATA MAY COME FROM VARIOUS YEARS](#)

<a href="#">Download CSV file</a>	<a href="#">Formaldehyde</a>	0.6	Lbs/Yr
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The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Reinhold Industries Inc      Facility ID : 44655  
 Street : 12827 E Imperial Hwy      [SIC Code](#) : 3089  
 City : Santa Fe Springs      Zip : 90670 4713  
 Phone : (562) 321-6669  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

**[Program Status](#) :****Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	9.2	Tons/Yr
	<a href="#">ROG</a>	4.6	Tons/Yr
	<a href="#">CO</a>	0.8	Tons/Yr
	<a href="#">NOX</a>	1.1	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.1	Tons/Yr
	<a href="#">PM10</a>	0.1	Tons/Yr
	<a href="#">PM2.5</a>	0.1	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0.2	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.3	Lbs/Yr
	<a href="#">NH3</a>	384.2	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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### FACILITY DETAILS

#### Facility Information

Facility Name : Rf Mac Donald Co      Facility ID : 150397  
 Street : Various Locations In Scaqmd      [SIC Code](#) : 5074  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (714) 257-0900  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : South Coast Aqmd

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

#### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b> <a href="#">Download CSV file</a>	<a href="#">TOG</a>	1.2	Tons/Yr
	<a href="#">ROG</a>	0.5	Tons/Yr
	<a href="#">CO</a>	8	Tons/Yr
	<a href="#">NOX</a>	9.5	Tons/Yr
	<a href="#">SOX</a>	0.1	Tons/Yr
	<a href="#">PM</a>	0.7	Tons/Yr
	<a href="#">PM10</a>	0.7	Tons/Yr
	<a href="#">PM2.5</a>	0.7	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	1.4	Lbs/Yr
	<a href="#">Formaldehyde</a>	3	Lbs/Yr
	<a href="#">NH3</a>	607.3	Lbs/Yr
	<a href="#">Naphthalene</a>	0.1	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.



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**FACILITY DETAILS****Facility Information**

Facility Name : Santa Fe Springs City      Facility ID : 2924  
 Street : 12636 Emmens Way      [SIC Code](#) : 9111  
 City : Santa Fe Springs      Zip : 90670 3942  
 Phone : (562) 868-0511  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

**[Program Status](#) :****Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.5	Tons/Yr
	<a href="#">ROG</a>	0	Tons/Yr
	<a href="#">CO</a>	1.3	Tons/Yr
	<a href="#">NOX</a>	2.1	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

**[TOXIC DATA MAY COME FROM VARIOUS YEARS](#)**

<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	0.6	Lbs/Yr
	<a href="#">2-MeNaphthalene</a>	0	Lbs/Yr
	<a href="#">Acenaphthene</a>	0	Lbs/Yr
	<a href="#">Acenaphthylene</a>	0	Lbs/Yr
	<a href="#">B[b]fluoranthene</a>	0	Lbs/Yr
	<a href="#">B[e]pyrene</a>	0	Lbs/Yr
	<a href="#">B[g,h,i]perylene</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	1.3	Lbs/Yr
	<a href="#">CCl4</a>	0	Lbs/Yr
	<a href="#">Chrysene</a>	0	Lbs/Yr
	<a href="#">EDB</a>	0	Lbs/Yr
	<a href="#">EDC</a>	0	Lbs/Yr
	<a href="#">Fluoranthene</a>	0	Lbs/Yr
	<a href="#">Fluorene</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	48.6	Lbs/Yr

## Facility Detail Risk Selection (ARB)

<a href="#">Methylene Chlor</a>	0	Lbs/Yr
<a href="#">NH3</a>	23.4	Lbs/Yr
<a href="#">Naphthalene</a>	0.1	Lbs/Yr
<a href="#">Phenanthrene</a>	0	Lbs/Yr
<a href="#">Pyrene</a>	0	Lbs/Yr
<a href="#">Vinyl Chloride</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Shaw Diversified Services Inc      Facility ID : 131850  
 Street : 15305 Valley View Ave      [SIC Code](#) : 4813  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 483-8269  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	5.7	Tons/Yr
	<a href="#">ROG</a>	5.1	Tons/Yr
	<a href="#">CO</a>	5.4	Tons/Yr
	<a href="#">NOX</a>	3.2	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	1.1	Tons/Yr
	<a href="#">PM10</a>	0.8	Tons/Yr
	<a href="#">PM2.5</a>	0.7	Tons/Yr

### TOXIC DATA MAY COME FROM VARIOUS YEARS

<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	0.1	Lbs/Yr
	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	1.2	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">DieselExhPM</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	2.2	Lbs/Yr
	<a href="#">Lead</a>	15.6	Lbs/Yr
	<a href="#">NH3</a>	2808.9	Lbs/Yr
	<a href="#">Naphthalene</a>	0.1	Lbs/Yr
	<a href="#">Nickel</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic

emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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**FACILITY DETAILS****Facility Information**

Facility Name : Specialty Paper Mills Inc      Facility ID : 800338  
 Street : 8834-44 Miller Grove Dr      [SIC Code](#) : 2621  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 699-1051  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

**[Program Status](#) :****Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	3	Tons/Yr
	<a href="#">ROG</a>	2.8	Tons/Yr
	<a href="#">CO</a>	2.7	Tons/Yr
	<a href="#">NOX</a>	0.4	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	6.2	Tons/Yr
	<a href="#">PM10</a>	4.4	Tons/Yr
	<a href="#">PM2.5</a>	2.7	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0.4	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.8	Lbs/Yr
	<a href="#">NH3</a>	1170.2	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Spiniello Companies  
 Street : Various Locations In Scaqmd  
 City : Santa Fe Springs  
 Phone : (909) 610-9876  
 County : Los Angeles  
 Air Basin : South Coast  
 District : South Coast Aqmd

Facility ID : 70961  
 SIC Code : 1623  
 Zip : 90670

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
			Level	Level
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.1	Tons/Yr
	<a href="#">ROG</a>	0.1	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

### TOXIC DATA MAY COME FROM VARIOUS YEARS

<a href="#">Download CSV file</a>	<a href="#">1,3-Butadiene</a>	0	Lbs/Yr
	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Cr(VI)</a>	0	Lbs/Yr
	<a href="#">DieselExhPM</a>	6.7	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.3	Lbs/Yr
	<a href="#">Lead</a>	0	Lbs/Yr
	<a href="#">NH3</a>	0.6	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">Nickel</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic

emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Steven Label Corp      Facility ID : 25167  
 Street : 11926 Burke St      [SIC Code](#) : 5131  
 City : Santa Fe Springs      Zip : 90670 2546  
 Phone : (562) 236-4711  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.3	Tons/Yr
	<a href="#">ROG</a>	0.2	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

### TOXIC DATA MAY COME FROM VARIOUS YEARS

<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	0	Lbs/Yr
	<a href="#">NH3</a>	5.1	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Freestone Auto Body & Paint, Inc      Facility ID : 181139  
 Street : 13659 Pumice St      [SIC Code](#) : 7534  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (310) 402-8304  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : I

## Emissions Data

### Zero Emissions or No Facility Data Found

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Super Dyeing & Finishing      Facility ID : 117536  
 Street : 8825 Millergrove Ave      [SIC Code](#) : 2261  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 692-9500  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

## Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.8	Tons/Yr
	<a href="#">ROG</a>	0.3	Tons/Yr
	<a href="#">CO</a>	3.8	Tons/Yr
	<a href="#">NOX</a>	1.5	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.4	Tons/Yr
	<a href="#">PM10</a>	0.4	Tons/Yr
	<a href="#">PM2.5</a>	0.4	Tons/Yr
<b><a href="#">TOXIC DATA MAY COME FROM VARIOUS YEARS</a></b>			
<a href="#">Download CSV file</a>	<a href="#">Benzene</a>	0.7	Lbs/Yr
	<a href="#">Formaldehyde</a>	1.5	Lbs/Yr
	<a href="#">NH3</a>	359.7	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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Welcome to

California

**FACILITY DETAILS****Facility Information**

Facility Name : Trojan Battery Company, Llc      Facility ID : 21872  
 Street : 9440 Ann St      [SIC Code](#) : 3691  
 City : Santa Fe Springs      Zip : 90670  
 Phone : (562) 236-3069  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : U**Emissions Data**

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.6	Tons/Yr
	<a href="#">ROG</a>	0.3	Tons/Yr
	<a href="#">CO</a>	1.2	Tons/Yr
	<a href="#">NOX</a>	3.6	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.3	Tons/Yr
	<a href="#">PM10</a>	0.3	Tons/Yr
	<a href="#">PM2.5</a>	0.3	Tons/Yr

**TOXIC DATA MAY COME FROM VARIOUS YEARS**

<a href="#">Download CSV file</a>	<a href="#">Arsenic</a>	0.1	Lbs/Yr
	<a href="#">Benzene</a>	0.5	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	1.1	Lbs/Yr
	<a href="#">Lead</a>	27.6	Lbs/Yr
	<a href="#">NH3</a>	1213.9	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please

contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Trojan Battery Company, Llc      Facility ID : 37507  
 Street : 12380 Clark St      [SIC Code](#) : 3692  
 City : Santa Fe Springs      Zip : 90670 3804  
 Phone : (562) 236-3069  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>	2012	2.6	>=10	25
<a href="#">Chronic Hazard Index</a>	2012	1.27	>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>	2012	1.08	>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

[Program Status](#) : B

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.9	Tons/Yr
	<a href="#">ROG</a>	0.7	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0.2	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0.2	Tons/Yr
	<a href="#">PM10</a>	0.1	Tons/Yr
	<a href="#">PM2.5</a>	0.1	Tons/Yr

#### TOXIC DATA MAY COME FROM VARIOUS YEARS

<a href="#">Download CSV file</a>	<a href="#">Arsenic</a>	0	Lbs/Yr
	<a href="#">Benzene</a>	0.1	Lbs/Yr
	<a href="#">Cadmium</a>	0	Lbs/Yr
	<a href="#">Formaldehyde</a>	0.9	Lbs/Yr
	<a href="#">Lead</a>	10.1	Lbs/Yr
	<a href="#">NH3</a>	5.4	Lbs/Yr
	<a href="#">Naphthalene</a>	0	Lbs/Yr
	<a href="#">Nickel</a>	0	Lbs/Yr
	<a href="#">PAHs-w/o</a>	0	Lbs/Yr

The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported.

If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## FACILITY DETAILS

### Facility Information

Facility Name : Vantage Associates      Facility ID : 173831  
 Street : 12333 Los Nietos Rd      [SIC Code](#) : 3089  
 City : Santa Fe Springs      Zip : 90670 2994  
 Phone : (562) 968-1400  
[County](#) : Los Angeles  
[Air Basin](#) : South Coast  
[District](#) : [South Coast Aqmd](#)

<a href="#">Facility Prioritization</a>	Inventory Year	Above High Threshold?	<a href="#">District Prioritization Threshold</a>	
			High	Low
<a href="#">Cancer Prioritization</a>			10	1
<a href="#">Chronic Prioritization</a>			10	1
<a href="#">Acute Prioritization</a>			10	1

Prioritization scores determine whether a facility must conduct a risk assessment for the "Hot Spots" program. The scores themselves are not an accurate measurement of facility risk.

<a href="#">Health Risk Assessment</a>	Inventory Year	Value	<a href="#">District Notification Level</a>	<a href="#">District RRAP Level</a>
<a href="#">Cancer Risk</a>			>=10	25
<a href="#">Chronic Hazard Index</a>			>1; lead THI >.5	3
<a href="#">Acute Hazard Index</a>			>1; lead THI >.5	3

The facility health risk assessment (HRA) and prioritization score data were collected under the Air Toxic 'Hot Spots' Program. The risk data, submitted to the ARB, may not have been derived from the same toxic emission data that was reported to CEIDARS. Because the facility may have taken action to reduce risks pursuant to the risk assessment, the risk from the facility may have been substantially reduced since the risk assessment was conducted. To determine if more recent data is available, please contact the district.

### [Program Status](#) :

### Emissions Data

	Pollutant	Emissions	Unit
<b>Data from 2019</b>  <a href="#">Download CSV file</a>	<a href="#">TOG</a>	0.3	Tons/Yr
	<a href="#">ROG</a>	0.3	Tons/Yr
	<a href="#">CO</a>	0	Tons/Yr
	<a href="#">NOX</a>	0	Tons/Yr
	<a href="#">SOX</a>	0	Tons/Yr
	<a href="#">PM</a>	0	Tons/Yr
	<a href="#">PM10</a>	0	Tons/Yr
	<a href="#">PM2.5</a>	0	Tons/Yr

### [TOXIC DATA MAY COME FROM VARIOUS YEARS](#)

<a href="#">Download CSV file</a>	<a href="#">Perc</a>	0	Lbs/Yr
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The emission inventory data provided here may have been developed over several years and is the most recent information available at ARB for this inventory year. Many facilities are only required to update their toxic emission data if there has been an increase in emissions. Therefore, the toxic emission data presented here should generally be viewed as maximum emission values which may have decreased since this information was reported. If you have questions regarding data updates, please contact the local air district. Note: If this facility has diesel-fueled internal combustion engines, then a portion of the PM10 shown is considered to be diesel exhaust PM10.

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## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Existing Land Uses; 2020)****Los Angeles-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,255.10	1000sqft	185.10	1,255,100.00	0
Office Park	3,234.70	1000sqft	120.50	3,234,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,836.10	1000sqft	3,333.90	67,836,100.00	0
City Park	111.50	Acre	111.50	4,856,940.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	270.00	Room	4.40	166,500.00	0
Apartments Low Rise	2,373.00	Dwelling Unit	303.70	2,373,000.00	8488
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	38430
Regional Shopping Center	4,305.10	1000sqft	258.10	4,305,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2020
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	531.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE GHG intensity factor for CO2 adjusted back to reflect historical compliance with state RPS requirements.

Land Use - Source: EIR PD; Table 3-1. Gov't office and ele school disaggregated from public facilities. Open / vacant / ROW space not modeled.



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Construction Phase - Existing condition model run - no construction emissions modeled.

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Energy Use - T24 standards adjusted upward to reflect decreased efficiency between 2013/2106 and 2016/2019 standards. See CalEEMod Appendix E5; Tables 1, 3, and 4.

Solid Waste -

Architectural Coating -

Area Coating -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	54.80	303.39
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	2.28	2.68
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.88
tblEnergyUse	T24E	3.58	4.20
tblEnergyUse	T24E	93.13	502.24
tblEnergyUse	T24NG	9,487.85	14,366.19
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07

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tblEnergyUse	T24NG	19.72	20.02
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.64
tblEnergyUse	T24NG	1.14	1.16
tblEnergyUse	T24NG	19,108.08	26,696.96
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	392,040.00	166,500.00
tblLandUse	LotAcreage	28.81	185.10
tblLandUse	LotAcreage	74.26	120.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,557.30	3,333.90
tblLandUse	LotAcreage	9.00	4.40
tblLandUse	LotAcreage	148.31	303.70
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	98.83	258.10
tblLandUse	Population	6,787.00	8,488.00
tblLandUse	Population	27,968.00	38,430.00
tblProjectCharacteristics	CO2IntensityFactor	390.98	531.98
tblSolidWaste	SolidWasteGenerationRate	3,008.27	3,009.20
tblTripsAndVMT	WorkerTripNumber	8,190.00	8,191.00
tblTripsAndVMT	WorkerTripNumber	40,952.00	40,953.00
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.73	4.55
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1,160.01	889.88

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	1,551.88	1,647.94
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14
tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.3000e-005	4.8000e-005
tblVehicleEF	HHD	6.50	4.76
tblVehicleEF	HHD	4.58	3.50
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	7.2200e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	6.9040e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.0000e-005	1.2070e-003
tblVehicleEF	HHD	4.3200e-004	4.1300e-004
tblVehicleEF	HHD	0.47	0.34
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.8400e-004	2.8350e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9220e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.0000e-005	1.2070e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	4.3200e-004	4.1300e-004
tblVehicleEF	HHD	0.54	0.55
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.8400e-004	2.8350e-003
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.57	4.44
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	9.6750e-003
tblVehicleEF	HHD	1,160.72	890.35
tblVehicleEF	HHD	1,551.88	1,647.94
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14
tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.2000e-005	4.7000e-005
tblVehicleEF	HHD	6.36	4.65
tblVehicleEF	HHD	4.34	3.32
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	6.6950e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	6.4020e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.6000e-005	1.4810e-003
tblVehicleEF	HHD	4.3800e-004	4.3300e-004
tblVehicleEF	HHD	0.49	0.35
tblVehicleEF	HHD	1.1000e-005	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.8200e-004	2.8540e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9260e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.6000e-005	1.4810e-003
tblVehicleEF	HHD	4.3800e-004	4.3300e-004
tblVehicleEF	HHD	0.56	0.56
tblVehicleEF	HHD	1.1000e-005	0.00
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.8200e-004	2.8540e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.95	4.71
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1,159.03	889.23
tblVehicleEF	HHD	1,551.88	1,647.93
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.4000e-005	4.8000e-005
tblVehicleEF	HHD	6.69	4.90
tblVehicleEF	HHD	4.51	3.44
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	7.9440e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	7.5970e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.1000e-005	1.1830e-003
tblVehicleEF	HHD	5.0900e-004	4.0900e-004
tblVehicleEF	HHD	0.45	0.32
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.9500e-004	2.9800e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9150e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.1000e-005	1.1830e-003
tblVehicleEF	HHD	5.0900e-004	4.0900e-004
tblVehicleEF	HHD	0.51	0.53
tblVehicleEF	HHD	7.0000e-006	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.9500e-004	2.9800e-003
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	LDA	4.0270e-003	4.1670e-003
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.86	1.03
tblVehicleEF	LDA	2.24	3.66
tblVehicleEF	LDA	286.85	297.95
tblVehicleEF	LDA	56.49	72.86
tblVehicleEF	LDA	5.7230e-003	6.0130e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.21	0.29
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.06	0.34
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.06	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.27	0.39
tblVehicleEF	LDA	2.8380e-003	2.9450e-003
tblVehicleEF	LDA	5.5900e-004	7.2000e-004
tblVehicleEF	LDA	0.06	0.34
tblVehicleEF	LDA	0.12	0.10



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.06	0.00
tblVehicleEF	LDA	0.02	0.43
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.30	0.43
tblVehicleEF	LDA	4.3050e-003	4.3060e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.95	1.21
tblVehicleEF	LDA	1.90	3.11
tblVehicleEF	LDA	299.91	311.40
tblVehicleEF	LDA	55.86	71.85
tblVehicleEF	LDA	5.2290e-003	5.3390e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.19	0.27
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.10	0.39
tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.08	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.24	0.35
tblVehicleEF	LDA	2.9670e-003	3.0780e-003
tblVehicleEF	LDA	5.5300e-004	7.1000e-004
tblVehicleEF	LDA	0.10	0.39

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.08	0.00
tblVehicleEF	LDA	0.03	0.38
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.27	0.38
tblVehicleEF	LDA	3.9410e-003	4.1300e-003
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.83	0.97
tblVehicleEF	LDA	2.31	3.78
tblVehicleEF	LDA	282.08	292.99
tblVehicleEF	LDA	56.63	73.09
tblVehicleEF	LDA	5.5760e-003	5.9050e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.21	0.29
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.06	0.33
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.05	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.28	0.40
tblVehicleEF	LDA	2.7910e-003	2.8960e-003
tblVehicleEF	LDA	5.6000e-004	7.2300e-004

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.06	0.33
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.05	0.00
tblVehicleEF	LDA	0.02	0.44
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.31	0.44
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.09	0.14
tblVehicleEF	LDT1	1.85	2.79
tblVehicleEF	LDT1	2.45	7.54
tblVehicleEF	LDT1	336.46	366.99
tblVehicleEF	LDT1	67.07	95.18
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.27
tblVehicleEF	LDT1	0.31	0.52
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.16	0.87
tblVehicleEF	LDT1	0.24	0.24
tblVehicleEF	LDT1	0.13	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.10	0.70
tblVehicleEF	LDT1	0.45	0.78
tblVehicleEF	LDT1	3.3290e-003	3.6280e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	6.6400e-004	9.4100e-004
tblVehicleEF	LDT1	0.16	0.87
tblVehicleEF	LDT1	0.24	0.24
tblVehicleEF	LDT1	0.13	0.00
tblVehicleEF	LDT1	0.07	0.86
tblVehicleEF	LDT1	0.10	0.70
tblVehicleEF	LDT1	0.49	0.86
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.08	0.13
tblVehicleEF	LDT1	2.01	3.23
tblVehicleEF	LDT1	2.08	6.36
tblVehicleEF	LDT1	349.70	382.27
tblVehicleEF	LDT1	66.31	93.03
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.14	0.23
tblVehicleEF	LDT1	0.28	0.48
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.24	1.02
tblVehicleEF	LDT1	0.25	0.25
tblVehicleEF	LDT1	0.18	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.09	0.70
tblVehicleEF	LDT1	0.39	0.69

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	3.4600e-003	3.7790e-003
tblVehicleEF	LDT1	6.5600e-004	9.2000e-004
tblVehicleEF	LDT1	0.24	1.02
tblVehicleEF	LDT1	0.25	0.25
tblVehicleEF	LDT1	0.18	0.00
tblVehicleEF	LDT1	0.07	0.76
tblVehicleEF	LDT1	0.09	0.70
tblVehicleEF	LDT1	0.43	0.76
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.09	0.15
tblVehicleEF	LDT1	1.79	2.63
tblVehicleEF	LDT1	2.53	7.81
tblVehicleEF	LDT1	331.61	361.37
tblVehicleEF	LDT1	67.24	95.68
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.26
tblVehicleEF	LDT1	0.31	0.53
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.16	0.85
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	0.12	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.12	0.72

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.46	0.80
tblVehicleEF	LDT1	3.2810e-003	3.5720e-003
tblVehicleEF	LDT1	6.6500e-004	9.4600e-004
tblVehicleEF	LDT1	0.16	0.85
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	0.12	0.00
tblVehicleEF	LDT1	0.07	0.88
tblVehicleEF	LDT1	0.12	0.72
tblVehicleEF	LDT1	0.50	0.88
tblVehicleEF	LDT2	6.3480e-003	5.6730e-003
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	1.24	1.34
tblVehicleEF	LDT2	2.87	4.49
tblVehicleEF	LDT2	367.68	389.08
tblVehicleEF	LDT2	73.77	95.57
tblVehicleEF	LDT2	9.0100e-003	9.4540e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.12	0.13
tblVehicleEF	LDT2	0.35	0.46
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.08	0.35
tblVehicleEF	LDT2	0.14	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.25
tblVehicleEF	LDT2	0.38	0.50
tblVehicleEF	LDT2	3.6380e-003	3.8460e-003
tblVehicleEF	LDT2	7.3000e-004	9.4500e-004
tblVehicleEF	LDT2	0.08	0.35
tblVehicleEF	LDT2	0.14	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.04	0.54
tblVehicleEF	LDT2	0.05	0.25
tblVehicleEF	LDT2	0.42	0.54
tblVehicleEF	LDT2	6.7610e-003	5.8600e-003
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	1.36	1.57
tblVehicleEF	LDT2	2.44	3.82
tblVehicleEF	LDT2	380.97	403.68
tblVehicleEF	LDT2	72.95	94.32
tblVehicleEF	LDT2	8.2120e-003	8.4060e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.10	0.11
tblVehicleEF	LDT2	0.32	0.43
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.13	0.40
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.11	0.00



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.34	0.44
tblVehicleEF	LDT2	3.7690e-003	3.9900e-003
tblVehicleEF	LDT2	7.2200e-004	9.3200e-004
tblVehicleEF	LDT2	0.13	0.40
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.11	0.00
tblVehicleEF	LDT2	0.04	0.48
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.37	0.49
tblVehicleEF	LDT2	6.2200e-003	5.6230e-003
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	1.20	1.26
tblVehicleEF	LDT2	2.96	4.65
tblVehicleEF	LDT2	362.81	383.70
tblVehicleEF	LDT2	73.95	95.86
tblVehicleEF	LDT2	8.7850e-003	9.2900e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.35	0.47
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.08	0.34
tblVehicleEF	LDT2	0.15	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.06	0.26
tblVehicleEF	LDT2	0.39	0.51
tblVehicleEF	LDT2	3.5890e-003	3.7930e-003
tblVehicleEF	LDT2	7.3200e-004	9.4800e-004
tblVehicleEF	LDT2	0.08	0.34
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.04	0.56
tblVehicleEF	LDT2	0.06	0.26
tblVehicleEF	LDT2	0.43	0.56
tblVehicleEF	LHD1	6.0720e-003	6.4230e-003
tblVehicleEF	LHD1	7.3250e-003	8.8270e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21
tblVehicleEF	LHD1	0.86	1.23
tblVehicleEF	LHD1	1.27	2.31
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.09	649.12
tblVehicleEF	LHD1	13.36	20.16
tblVehicleEF	LHD1	6.6800e-004	5.4300e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.84	0.82
tblVehicleEF	LHD1	0.38	0.54
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004
tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	2.9890e-003	0.17
tblVehicleEF	LHD1	0.09	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7700e-003	0.00
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.23	0.24
tblVehicleEF	LHD1	0.10	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.7870e-003	6.3610e-003
tblVehicleEF	LHD1	1.3200e-004	1.9900e-004
tblVehicleEF	LHD1	2.9890e-003	0.17
tblVehicleEF	LHD1	0.09	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	1.7700e-003	0.00
tblVehicleEF	LHD1	0.08	0.16
tblVehicleEF	LHD1	0.23	0.24
tblVehicleEF	LHD1	0.11	0.17
tblVehicleEF	LHD1	6.0860e-003	6.4420e-003
tblVehicleEF	LHD1	7.4710e-003	9.0030e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.87	1.25
tblVehicleEF	LHD1	1.21	2.21
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.11	649.16
tblVehicleEF	LHD1	13.25	19.98
tblVehicleEF	LHD1	6.7100e-004	5.4600e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.79	0.77
tblVehicleEF	LHD1	0.36	0.51
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004
tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	4.5020e-003	0.20
tblVehicleEF	LHD1	0.10	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.5260e-003	0.00
tblVehicleEF	LHD1	0.06	0.08
tblVehicleEF	LHD1	0.22	0.24
tblVehicleEF	LHD1	0.09	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.7880e-003	6.3610e-003
tblVehicleEF	LHD1	1.3100e-004	1.9800e-004
tblVehicleEF	LHD1	4.5020e-003	0.20
tblVehicleEF	LHD1	0.10	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	2.5260e-003	0.00
tblVehicleEF	LHD1	0.08	0.15
tblVehicleEF	LHD1	0.22	0.24
tblVehicleEF	LHD1	0.10	0.16
tblVehicleEF	LHD1	6.0700e-003	6.4190e-003
tblVehicleEF	LHD1	7.2870e-003	8.7800e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21
tblVehicleEF	LHD1	0.86	1.23
tblVehicleEF	LHD1	1.28	2.33
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.08	649.11
tblVehicleEF	LHD1	13.37	20.20
tblVehicleEF	LHD1	6.6800e-004	5.4300e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.83	0.81
tblVehicleEF	LHD1	0.38	0.54
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	3.1840e-003	0.17
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7530e-003	0.00
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.25	0.25
tblVehicleEF	LHD1	0.10	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.7870e-003	6.3600e-003
tblVehicleEF	LHD1	1.3200e-004	2.0000e-004
tblVehicleEF	LHD1	3.1840e-003	0.17
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	1.7530e-003	0.00
tblVehicleEF	LHD1	0.08	0.16
tblVehicleEF	LHD1	0.25	0.25
tblVehicleEF	LHD1	0.11	0.17
tblVehicleEF	LHD2	4.3360e-003	4.7310e-003
tblVehicleEF	LHD2	5.0610e-003	6.7830e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.58	0.78
tblVehicleEF	LHD2	0.88	1.67
tblVehicleEF	LHD2	13.48	13.07

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	696.37	699.26
tblVehicleEF	LHD2	10.49	14.57
tblVehicleEF	LHD2	1.5060e-003	1.3370e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.11	1.15
tblVehicleEF	LHD2	0.27	0.39
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	1.8880e-003	0.12
tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1220e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7820e-003
tblVehicleEF	LHD2	1.0400e-004	1.4400e-004
tblVehicleEF	LHD2	1.8880e-003	0.12



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.1220e-003	0.00
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	0.07	0.12
tblVehicleEF	LHD2	4.3450e-003	4.7450e-003
tblVehicleEF	LHD2	5.1270e-003	6.8650e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.58	0.79
tblVehicleEF	LHD2	0.84	1.60
tblVehicleEF	LHD2	13.48	13.07
tblVehicleEF	LHD2	696.38	699.28
tblVehicleEF	LHD2	10.42	14.44
tblVehicleEF	LHD2	1.5080e-003	1.3400e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.05	1.08
tblVehicleEF	LHD2	0.26	0.37
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	2.8210e-003	0.14
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5880e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.15	0.17
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7830e-003
tblVehicleEF	LHD2	1.0300e-004	1.4300e-004
tblVehicleEF	LHD2	2.8210e-003	0.14
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.5880e-003	0.00
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.15	0.17
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	4.3340e-003	4.7280e-003
tblVehicleEF	LHD2	5.0440e-003	6.7610e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.57	0.77
tblVehicleEF	LHD2	0.89	1.69
tblVehicleEF	LHD2	13.48	13.07
tblVehicleEF	LHD2	696.37	699.25
tblVehicleEF	LHD2	10.50	14.60
tblVehicleEF	LHD2	1.5060e-003	1.3370e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.09	1.13
tblVehicleEF	LHD2	0.27	0.39
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	1.9880e-003	0.12
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0960e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7820e-003
tblVehicleEF	LHD2	1.0400e-004	1.4400e-004
tblVehicleEF	LHD2	1.9880e-003	0.12
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.0960e-003	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.07	0.12
tblVehicleEF	MCY	0.38	0.20
tblVehicleEF	MCY	0.24	0.19
tblVehicleEF	MCY	19.84	14.88
tblVehicleEF	MCY	8.48	7.68
tblVehicleEF	MCY	223.17	198.42
tblVehicleEF	MCY	60.40	51.87
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	9.2200e-003
tblVehicleEF	MCY	1.14	0.62
tblVehicleEF	MCY	0.26	0.16
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.10	2.12
tblVehicleEF	MCY	0.70	3.62
tblVehicleEF	MCY	0.69	0.00
tblVehicleEF	MCY	2.65	1.40
tblVehicleEF	MCY	0.59	3.64
tblVehicleEF	MCY	1.84	1.42
tblVehicleEF	MCY	2.2080e-003	1.9620e-003
tblVehicleEF	MCY	5.9800e-004	5.1300e-004
tblVehicleEF	MCY	1.10	2.12
tblVehicleEF	MCY	0.70	3.62

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	0.69	0.00
tblVehicleEF	MCY	3.27	1.55
tblVehicleEF	MCY	0.59	3.64
tblVehicleEF	MCY	2.00	1.55
tblVehicleEF	MCY	0.38	0.20
tblVehicleEF	MCY	0.21	0.17
tblVehicleEF	MCY	19.07	14.57
tblVehicleEF	MCY	7.74	6.99
tblVehicleEF	MCY	221.70	197.81
tblVehicleEF	MCY	58.50	50.23
tblVehicleEF	MCY	0.06	0.04
tblVehicleEF	MCY	0.01	9.0610e-003
tblVehicleEF	MCY	0.99	0.54
tblVehicleEF	MCY	0.25	0.15
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.79	2.69
tblVehicleEF	MCY	0.77	3.71
tblVehicleEF	MCY	1.13	0.00
tblVehicleEF	MCY	2.58	1.36
tblVehicleEF	MCY	0.56	3.58
tblVehicleEF	MCY	1.63	1.25
tblVehicleEF	MCY	2.1940e-003	1.9560e-003
tblVehicleEF	MCY	5.7900e-004	4.9700e-004
tblVehicleEF	MCY	1.79	2.69

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	0.77	3.71
tblVehicleEF	MCY	1.13	0.00
tblVehicleEF	MCY	3.18	1.36
tblVehicleEF	MCY	0.56	3.58
tblVehicleEF	MCY	1.77	1.36
tblVehicleEF	MCY	0.38	0.21
tblVehicleEF	MCY	0.24	0.19
tblVehicleEF	MCY	19.94	14.94
tblVehicleEF	MCY	8.61	7.81
tblVehicleEF	MCY	223.39	198.53
tblVehicleEF	MCY	60.73	52.19
tblVehicleEF	MCY	0.06	0.04
tblVehicleEF	MCY	0.02	9.3900e-003
tblVehicleEF	MCY	1.11	0.61
tblVehicleEF	MCY	0.27	0.16
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.20	2.09
tblVehicleEF	MCY	0.90	3.61
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.66	1.40
tblVehicleEF	MCY	0.68	3.93
tblVehicleEF	MCY	1.88	1.46
tblVehicleEF	MCY	2.2110e-003	1.9630e-003
tblVehicleEF	MCY	6.0100e-004	5.1600e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	1.20	2.09
tblVehicleEF	MCY	0.90	3.61
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.28	1.58
tblVehicleEF	MCY	0.68	3.93
tblVehicleEF	MCY	2.05	1.58
tblVehicleEF	MDV	9.2700e-003	9.8780e-003
tblVehicleEF	MDV	0.10	0.14
tblVehicleEF	MDV	1.64	1.96
tblVehicleEF	MDV	3.50	5.20
tblVehicleEF	MDV	449.45	473.63
tblVehicleEF	MDV	89.79	116.02
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.16	0.23
tblVehicleEF	MDV	0.43	0.63
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.09	0.42
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	0.10	0.00
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.50	0.73
tblVehicleEF	MDV	4.4440e-003	4.6800e-003



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	8.8900e-004	1.1470e-003
tblVehicleEF	MDV	0.09	0.42
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	0.10	0.00
tblVehicleEF	MDV	0.06	0.80
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.54	0.80
tblVehicleEF	MDV	9.7460e-003	0.01
tblVehicleEF	MDV	0.09	0.12
tblVehicleEF	MDV	1.77	2.22
tblVehicleEF	MDV	2.98	4.42
tblVehicleEF	MDV	463.58	488.99
tblVehicleEF	MDV	88.78	114.53
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.14	0.19
tblVehicleEF	MDV	0.39	0.58
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.15	0.48
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.44	0.65

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	4.5840e-003	4.8320e-003
tblVehicleEF	MDV	8.7900e-004	1.1320e-003
tblVehicleEF	MDV	0.15	0.48
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.06	0.71
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.48	0.71
tblVehicleEF	MDV	9.1130e-003	9.8120e-003
tblVehicleEF	MDV	0.10	0.14
tblVehicleEF	MDV	1.59	1.86
tblVehicleEF	MDV	3.61	5.38
tblVehicleEF	MDV	444.29	467.96
tblVehicleEF	MDV	90.01	116.37
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.16	0.22
tblVehicleEF	MDV	0.43	0.64
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.09	0.41
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	0.09	0.00
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.07	0.32

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.51	0.75
tblVehicleEF	MDV	4.3930e-003	4.6240e-003
tblVehicleEF	MDV	8.9100e-004	1.1500e-003
tblVehicleEF	MDV	0.09	0.41
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	0.09	0.00
tblVehicleEF	MDV	0.06	0.81
tblVehicleEF	MDV	0.07	0.32
tblVehicleEF	MDV	0.56	0.82
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.93	3.83
tblVehicleEF	MH	2.41	3.16
tblVehicleEF	MH	1,557.81	1,609.57
tblVehicleEF	MH	20.79	26.41
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.25	1.53
tblVehicleEF	MH	0.25	0.29
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.06	45.61
tblVehicleEF	MH	0.07	14.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.43	0.00
tblVehicleEF	MH	0.08	0.14
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0600e-004	2.6100e-004
tblVehicleEF	MH	1.06	45.61
tblVehicleEF	MH	0.07	14.14
tblVehicleEF	MH	0.43	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.12	0.17
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.97	3.90
tblVehicleEF	MH	2.27	2.99
tblVehicleEF	MH	1,557.88	1,609.69
tblVehicleEF	MH	20.56	26.11
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.15	1.40
tblVehicleEF	MH	0.24	0.28
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.57	53.98
tblVehicleEF	MH	0.07	14.80
tblVehicleEF	MH	0.62	0.00
tblVehicleEF	MH	0.08	0.14
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0300e-004	2.5800e-004
tblVehicleEF	MH	1.57	53.98
tblVehicleEF	MH	0.07	14.80
tblVehicleEF	MH	0.62	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.12	0.16
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.92	3.81
tblVehicleEF	MH	2.43	3.20
tblVehicleEF	MH	1,557.79	1,609.53
tblVehicleEF	MH	20.83	26.47
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.22	1.50
tblVehicleEF	MH	0.25	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.21	44.41
tblVehicleEF	MH	0.09	14.01
tblVehicleEF	MH	0.44	0.00
tblVehicleEF	MH	0.08	0.13
tblVehicleEF	MH	0.02	0.30
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0600e-004	2.6200e-004
tblVehicleEF	MH	1.21	44.41
tblVehicleEF	MH	0.09	14.01
tblVehicleEF	MH	0.44	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.30
tblVehicleEF	MH	0.12	0.17
tblVehicleEF	MHD	4.4570e-003	0.02
tblVehicleEF	MHD	9.4690e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.40	0.64
tblVehicleEF	MHD	0.87	1.00
tblVehicleEF	MHD	1.61	2.02
tblVehicleEF	MHD	70.09	145.78
tblVehicleEF	MHD	1,129.05	1,240.97
tblVehicleEF	MHD	12.73	15.44
tblVehicleEF	MHD	9.7620e-003	0.02
tblVehicleEF	MHD	0.14	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	9.0660e-003	0.01
tblVehicleEF	MHD	0.62	1.24
tblVehicleEF	MHD	2.74	2.21
tblVehicleEF	MHD	1.00	0.91
tblVehicleEF	MHD	2.2440e-003	5.2410e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05
tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	2.1470e-003	5.0140e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	8.0200e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	4.9400e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.6600e-004	1.3530e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2600e-004	1.5300e-004
tblVehicleEF	MHD	8.0200e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.06
tblVehicleEF	MHD	4.9400e-004	0.00
tblVehicleEF	MHD	0.17	0.08
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	4.2180e-003	0.02
tblVehicleEF	MHD	9.5490e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.31	0.54
tblVehicleEF	MHD	0.88	1.01
tblVehicleEF	MHD	1.53	1.92
tblVehicleEF	MHD	71.71	148.28
tblVehicleEF	MHD	1,129.06	1,241.00
tblVehicleEF	MHD	12.59	15.27
tblVehicleEF	MHD	9.9660e-003	0.02
tblVehicleEF	MHD	0.14	0.14
tblVehicleEF	MHD	8.9200e-003	9.8630e-003
tblVehicleEF	MHD	0.63	1.26
tblVehicleEF	MHD	2.58	2.08
tblVehicleEF	MHD	0.99	0.91
tblVehicleEF	MHD	1.8940e-003	4.4250e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05
tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	1.8120e-003	4.2330e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	1.2080e-003	0.06
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	7.1000e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.8200e-004	1.3770e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2500e-004	1.5100e-004
tblVehicleEF	MHD	1.2080e-003	0.06
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.06
tblVehicleEF	MHD	7.1000e-004	0.00
tblVehicleEF	MHD	0.18	0.07
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10
tblVehicleEF	MHD	4.7990e-003	0.02
tblVehicleEF	MHD	9.4450e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.51	0.79
tblVehicleEF	MHD	0.86	0.99
tblVehicleEF	MHD	1.63	2.04
tblVehicleEF	MHD	67.85	142.30
tblVehicleEF	MHD	1,129.04	1,240.96
tblVehicleEF	MHD	12.75	15.48
tblVehicleEF	MHD	9.4860e-003	0.02
tblVehicleEF	MHD	0.14	0.14
tblVehicleEF	MHD	9.1850e-003	0.01
tblVehicleEF	MHD	0.61	1.23
tblVehicleEF	MHD	2.69	2.17
tblVehicleEF	MHD	1.00	0.91
tblVehicleEF	MHD	2.7270e-003	6.3670e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	2.6090e-003	6.0910e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	8.4900e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	4.8700e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.4500e-004	1.3200e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2600e-004	1.5300e-004
tblVehicleEF	MHD	8.4900e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.04	0.06
tblVehicleEF	MHD	4.8700e-004	0.00
tblVehicleEF	MHD	0.17	0.08
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10
tblVehicleEF	OBUS	9.0530e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.61	0.55
tblVehicleEF	OBUS	1.25	1.35
tblVehicleEF	OBUS	2.54	2.99
tblVehicleEF	OBUS	98.82	84.33

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1,458.58	1,540.52
tblVehicleEF	OBUS	19.86	23.72
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.71	0.47
tblVehicleEF	OBUS	2.50	1.99
tblVehicleEF	OBUS	0.62	0.59
tblVehicleEF	OBUS	3.3790e-003	1.5850e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	3.2330e-003	1.5160e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	1.8690e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.3400e-004	0.00
tblVehicleEF	OBUS	0.14	0.12
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.12	0.14
tblVehicleEF	OBUS	9.4000e-004	7.7200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9700e-004	2.3500e-004
tblVehicleEF	OBUS	1.8690e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	9.3400e-004	0.00
tblVehicleEF	OBUS	0.18	0.10
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	9.0480e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.57	0.53
tblVehicleEF	OBUS	1.27	1.37
tblVehicleEF	OBUS	2.40	2.82
tblVehicleEF	OBUS	100.02	84.73
tblVehicleEF	OBUS	1,458.61	1,540.55
tblVehicleEF	OBUS	19.62	23.44
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.72	0.47
tblVehicleEF	OBUS	2.35	1.86
tblVehicleEF	OBUS	0.61	0.58
tblVehicleEF	OBUS	2.8530e-003	1.3420e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	2.7300e-003	1.2840e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	2.7290e-003	0.11
tblVehicleEF	OBUS	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	1.3230e-003	0.00
tblVehicleEF	OBUS	0.15	0.12
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.12	0.14
tblVehicleEF	OBUS	9.5100e-004	7.7600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9400e-004	2.3200e-004
tblVehicleEF	OBUS	2.7290e-003	0.11
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	1.3230e-003	0.00
tblVehicleEF	OBUS	0.18	0.09
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.13	0.15
tblVehicleEF	OBUS	9.0790e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.66	0.57
tblVehicleEF	OBUS	1.24	1.35
tblVehicleEF	OBUS	2.56	3.02
tblVehicleEF	OBUS	97.15	83.79
tblVehicleEF	OBUS	1,458.57	1,540.51
tblVehicleEF	OBUS	19.91	23.78
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.71	0.48
tblVehicleEF	OBUS	2.46	1.95

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.62	0.60
tblVehicleEF	OBUS	4.1050e-003	1.9210e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	3.9270e-003	1.8380e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	1.9790e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.2100e-004	0.00
tblVehicleEF	OBUS	0.14	0.12
tblVehicleEF	OBUS	0.08	0.10
tblVehicleEF	OBUS	0.12	0.15
tblVehicleEF	OBUS	9.2400e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9700e-004	2.3500e-004
tblVehicleEF	OBUS	1.9790e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.08
tblVehicleEF	OBUS	9.2100e-004	0.00
tblVehicleEF	OBUS	0.18	0.10
tblVehicleEF	OBUS	0.08	0.10
tblVehicleEF	OBUS	0.14	0.16
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	7.9520e-003	1.43
tblVehicleEF	SBUS	5.5910e-003	6.9200e-003



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	2.47	2.65
tblVehicleEF	SBUS	0.66	5.91
tblVehicleEF	SBUS	0.78	1.00
tblVehicleEF	SBUS	350.96	257.85
tblVehicleEF	SBUS	1,142.40	1,278.15
tblVehicleEF	SBUS	4.74	5.86
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.2890e-003	6.0480e-003
tblVehicleEF	SBUS	3.43	1.43
tblVehicleEF	SBUS	5.48	3.72
tblVehicleEF	SBUS	0.77	0.14
tblVehicleEF	SBUS	5.0980e-003	2.3700e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	4.8780e-003	2.2560e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	8.4800e-004	0.05
tblVehicleEF	SBUS	7.2490e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	4.3000e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	3.3450e-003	1.4490e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.7000e-005	5.8000e-005
tblVehicleEF	SBUS	8.4800e-004	0.05
tblVehicleEF	SBUS	7.2490e-003	0.01
tblVehicleEF	SBUS	0.40	0.81
tblVehicleEF	SBUS	4.3000e-004	0.00
tblVehicleEF	SBUS	0.13	0.18
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	8.0370e-003	1.44
tblVehicleEF	SBUS	4.9800e-003	6.1750e-003
tblVehicleEF	SBUS	2.43	2.63
tblVehicleEF	SBUS	0.67	5.93
tblVehicleEF	SBUS	0.64	0.81
tblVehicleEF	SBUS	360.21	261.89
tblVehicleEF	SBUS	1,142.41	1,278.17
tblVehicleEF	SBUS	4.49	5.56
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.1630e-003	5.8980e-003
tblVehicleEF	SBUS	3.51	1.47
tblVehicleEF	SBUS	5.17	3.50
tblVehicleEF	SBUS	0.77	0.13
tblVehicleEF	SBUS	4.3050e-003	2.0470e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	4.1180e-003	1.9470e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	1.2330e-003	0.05
tblVehicleEF	SBUS	7.3700e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	6.0300e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.4320e-003	1.4880e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.5000e-005	5.5000e-005
tblVehicleEF	SBUS	1.2330e-003	0.05
tblVehicleEF	SBUS	7.3700e-003	0.01
tblVehicleEF	SBUS	0.40	0.81
tblVehicleEF	SBUS	6.0300e-004	0.00
tblVehicleEF	SBUS	0.13	0.16
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	7.9270e-003	1.43
tblVehicleEF	SBUS	5.7270e-003	7.0910e-003
tblVehicleEF	SBUS	2.53	2.67
tblVehicleEF	SBUS	0.66	5.91
tblVehicleEF	SBUS	0.81	1.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	338.18	252.27
tblVehicleEF	SBUS	1,142.39	1,278.14
tblVehicleEF	SBUS	4.78	5.92
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.3830e-003	6.1580e-003
tblVehicleEF	SBUS	3.32	1.37
tblVehicleEF	SBUS	5.39	3.66
tblVehicleEF	SBUS	0.77	0.14
tblVehicleEF	SBUS	6.1940e-003	2.8150e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	5.9260e-003	2.6820e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	8.8200e-004	0.05
tblVehicleEF	SBUS	7.8210e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	4.1600e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.2240e-003	1.3960e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.7000e-005	5.9000e-005

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	8.8200e-004	0.05
tblVehicleEF	SBUS	7.8210e-003	0.01
tblVehicleEF	SBUS	0.41	0.81
tblVehicleEF	SBUS	4.1600e-004	0.00
tblVehicleEF	SBUS	0.13	0.18
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.04	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.71	0.85
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.66	9.57
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.1050e-003	8.2200e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003
tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	5.6300e-004	0.02
tblVehicleEF	UBUS	7.6040e-003	6.4870e-003
tblVehicleEF	UBUS	4.4800e-004	0.00
tblVehicleEF	UBUS	0.15	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	1.8230e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.6000e-005	9.5000e-005
tblVehicleEF	UBUS	5.6300e-004	0.02
tblVehicleEF	UBUS	7.6040e-003	6.4870e-003
tblVehicleEF	UBUS	4.4800e-004	0.00
tblVehicleEF	UBUS	6.37	0.04
tblVehicleEF	UBUS	1.8230e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.62	0.75
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.52	9.40
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.0310e-003	8.1240e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003
tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	8.2300e-004	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	7.8580e-003	6.7650e-003
tblVehicleEF	UBUS	6.2300e-004	0.00
tblVehicleEF	UBUS	0.15	0.14
tblVehicleEF	UBUS	1.6570e-003	0.01
tblVehicleEF	UBUS	0.04	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.4000e-005	9.3000e-005
tblVehicleEF	UBUS	8.2300e-004	0.02
tblVehicleEF	UBUS	7.8580e-003	6.7650e-003
tblVehicleEF	UBUS	6.2300e-004	0.00
tblVehicleEF	UBUS	6.37	0.03
tblVehicleEF	UBUS	1.6570e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.72	0.87
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.69	9.61
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.2190e-003	8.3450e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	5.5100e-004	0.02
tblVehicleEF	UBUS	8.1190e-003	6.4360e-003
tblVehicleEF	UBUS	4.2600e-004	0.00
tblVehicleEF	UBUS	0.15	0.14
tblVehicleEF	UBUS	2.2150e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.6000e-005	9.5000e-005
tblVehicleEF	UBUS	5.5100e-004	0.02
tblVehicleEF	UBUS	8.1190e-003	6.4360e-003
tblVehicleEF	UBUS	4.2600e-004	0.00
tblVehicleEF	UBUS	6.37	0.04
tblVehicleEF	UBUS	2.2150e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.60
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	26.33
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	14.90
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	31.75
tblWater	IndoorWaterUseRate	574,915,354.63	575,093,088.38
tblWater	OutdoorWaterUseRate	352,367,475.42	352,476,409.01

**2.0 Emissions Summary**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Highest

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	440.5924	4.6152	203.9920	0.2038		12.2984	12.2984		12.2984	12.2984	1,290.774 1	2,687.077 3	3,977.851 4	4.0542	0.0876	4,105.312 8
Energy	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	331,306.6 865	331,306.6 865	17.9171	3.1558	332,695.0 438
Mobile	264.1708	319.8634	2,639.375 3	4.9051	408.3242	4.5722	412.8964	102.0009	4.2745	106.2755	0.0000	454,626.8 151	454,626.8 151	26.3622	20.7774	461,477.5 382
Waste						0.0000	0.0000		0.0000	0.0000	22,650.09 50	0.0000	22,650.09 50	1,338.582 3	0.0000	56,114.65 16
Water						0.0000	0.0000		0.0000	0.0000	5,604.714 1	59,648.30 29	65,253.01 70	579.3580	14.0410	83,921.19 45
<b>Total</b>	<b>710.9738</b>	<b>379.8427</b>	<b>2,882.754 5</b>	<b>5.4476</b>	<b>408.3242</b>	<b>21.1615</b>	<b>429.4858</b>	<b>102.0009</b>	<b>20.8639</b>	<b>122.8648</b>	<b>29,545.58 32</b>	<b>848,268.8 817</b>	<b>877,814.4 649</b>	<b>1,966.273 7</b>	<b>38.0619</b>	<b>938,313.7 410</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	440.5924	4.6152	203.9920	0.2038		12.2984	12.2984		12.2984	12.2984	1,290.774 1	2,687.077 3	3,977.851 4	4.0542	0.0876	4,105.312 8
Energy	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	331,306.6 865	331,306.6 865	17.9171	3.1558	332,695.0 438
Mobile	264.1708	319.8634	2,639.375 3	4.9051	408.3242	4.5722	412.8964	102.0009	4.2745	106.2755	0.0000	454,626.8 151	454,626.8 151	26.3622	20.7774	461,477.5 382
Waste						0.0000	0.0000		0.0000	0.0000	22,650.09 50	0.0000	22,650.09 50	1,338.582 3	0.0000	56,114.65 16
Water						0.0000	0.0000		0.0000	0.0000	5,604.714 1	59,648.30 29	65,253.01 70	579.3580	14.0410	83,921.19 45
<b>Total</b>	<b>710.9738</b>	<b>379.8427</b>	<b>2,882.754 5</b>	<b>5.4476</b>	<b>408.3242</b>	<b>21.1615</b>	<b>429.4858</b>	<b>102.0009</b>	<b>20.8639</b>	<b>122.8648</b>	<b>29,545.58 32</b>	<b>848,268.8 817</b>	<b>877,814.4 649</b>	<b>1,966.273 7</b>	<b>38.0619</b>	<b>938,313.7 410</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	12/31/2018	5	0	
2	Architectural Coating	Architectural Coating	1/13/2019	1/11/2019	5	0	
3	Grading	Grading	4/30/2019	4/29/2019	5	0	

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

4	Site Preparation	Site Preparation	5/1/2019	4/30/2019	5	0
5	Building Construction	Building Construction	9/29/2019	9/27/2019	5	0
6	Paving	Paving	11/14/2019	11/13/2019	5	0

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0**

**Residential Indoor: 40,449,780; Residential Outdoor: 13,483,260; Non-Residential Indoor: 117,126,750; Non-Residential Outdoor: 39,042,250;**  
**Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Trips and VMT

### 3.1 Mitigation Measures Construction

### 3.3 Architectural Coating - 2019

### Unmitigated Construction On-Site

[illegible]



## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site



## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.7 Paving - 2019****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	264.1708	319.8634	2,639.375 3	4.9051	408.3242	4.5722	412.8964	102.0009	4.2745	106.2755	0.0000	454,626.8 151	454,626.8 151	26.3622	20.7774	461,477.5 382
Unmitigated	264.1708	319.8634	2,639.375 3	4.9051	408.3242	4.5722	412.8964	102.0009	4.2745	106.2755	0.0000	454,626.8 151	454,626.8 151	26.3622	20.7774	461,477.5 382

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586
Total	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.60	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
City Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Elementary School	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Golf Course	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Government Office Building	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Hotel	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Industrial Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Office Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Regional Shopping Center	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Single Family Housing	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	269,842.6873	269,842.6873	16.7390	2.0290	270,865.7947
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	269,842.6873	269,842.6873	16.7390	2.0290	270,865.7947
NaturalGas Mitigated	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	61,463.9992	61,463.9992	1.1781	1.1268	61,829.2491
NaturalGas Unmitigated	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	61,463.9992	61,463.9992	1.1781	1.1268	61,829.2491

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	4.92402e+007	0.2655	2.2689	0.9655	0.0145		0.1834	0.1834		0.1834	0.1834	0.0000	2,627.6446	2,627.6446	0.0504	0.0482	2,643.2594
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.34492e+007	0.0725	0.6593	0.5538	3.9600e-003		0.0501	0.0501		0.0501	0.0501	0.0000	717.6979	717.6979	0.0138	0.0132	721.9628
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.31283e+007	0.0708	0.6436	0.5406	3.8600e-003		0.0489	0.0489		0.0489	0.0489	0.0000	700.5785	700.5785	0.0134	0.0128	704.7417
Hotel	4.00932e+006	0.0216	0.1965	0.1651	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.9526	213.9526	4.1000e-003	3.9200e-003	215.2240
Industrial Park	7.09566e+008	3.8261	34.7826	29.2174	0.2087		2.6435	2.6435		2.6435	2.6435	0.0000	37,865.1229	37,865.1229	0.7258	0.6942	38,090.1364
Office Park	3.17971e+007	0.1715	1.5587	1.3093	9.3500e-003		0.1185	0.1185		0.1185	0.1185	0.0000	1,696.8144	1,696.8144	0.0325	0.0311	1,706.8977
Regional Shopping Center	7.10342e+006	0.0383	0.3482	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265	0.0000	379.0653	379.0653	7.2700e-003	6.9500e-003	381.3179
Single Family Housing	3.23499e+008	1.7444	14.9063	6.3431	0.0952		1.2052	1.2052		1.2052	1.2052	0.0000	17,263.1230	17,263.1230	0.3309	0.3165	17,365.7091
<b>Total</b>		<b>6.2106</b>	<b>55.3641</b>	<b>39.3873</b>	<b>0.3388</b>		<b>4.2910</b>	<b>4.2910</b>		<b>4.2910</b>	<b>4.2910</b>	<b>0.0000</b>	<b>61,463.9992</b>	<b>61,463.9992</b>	<b>1.1781</b>	<b>1.1268</b>	<b>61,829.2491</b>



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	4.92402e +007	0.2655	2.2689	0.9655	0.0145		0.1834	0.1834		0.1834	0.1834	0.0000	2,627.644 6	2,627.644 6	0.0504	0.0482	2,643.259 4
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.34492e +007	0.0725	0.6593	0.5538	3.9600e- 003		0.0501	0.0501		0.0501	0.0501	0.0000	717.6979	717.6979	0.0138	0.0132	721.9628
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.31283e +007	0.0708	0.6436	0.5406	3.8600e- 003		0.0489	0.0489		0.0489	0.0489	0.0000	700.5785	700.5785	0.0134	0.0128	704.7417
Hotel	4.00932e +006	0.0216	0.1965	0.1651	1.1800e- 003		0.0149	0.0149		0.0149	0.0149	0.0000	213.9526	213.9526	4.1000e- 003	3.9200e- 003	215.2240
Industrial Park	7.09566e +008	3.8261	34.7826	29.2174	0.2087		2.6435	2.6435		2.6435	2.6435	0.0000	37,865.12 29	37,865.12 29	0.7258	0.6942	38,090.13 64
Office Park	3.17971e +007	0.1715	1.5587	1.3093	9.3500e- 003		0.1185	0.1185		0.1185	0.1185	0.0000	1,696.814 4	1,696.814 4	0.0325	0.0311	1,706.897 7
Regional Shopping Center	7.10342e +006	0.0383	0.3482	0.2925	2.0900e- 003		0.0265	0.0265		0.0265	0.0265	0.0000	379.0653	379.0653	7.2700e- 003	6.9500e- 003	381.3179
Single Family Housing	3.23499e +008	1.7444	14.9063	6.3431	0.0952		1.2052	1.2052		1.2052	1.2052	0.0000	17,263.12 30	17,263.12 30	0.3309	0.3165	17,365.70 91
<b>Total</b>		<b>6.2106</b>	<b>55.3641</b>	<b>39.3873</b>	<b>0.3388</b>		<b>4.2910</b>	<b>4.2910</b>		<b>4.2910</b>	<b>4.2910</b>	<b>0.0000</b>	<b>61,463.99 92</b>	<b>61,463.99 92</b>	<b>1.1781</b>	<b>1.1268</b>	<b>61,829.24 91</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.01719e +007	2,454.497 7	0.1523	0.0185	2,463.803 9
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	7.73487e +006	1,866.440 1	0.1158	0.0140	1,873.516 7
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.65799e +007	4,000.757 2	0.2482	0.0301	4,015.926 0
Hotel	1.28372e +006	309.7631	0.0192	2.3300e- 003	310.9376
Industrial Park	8.96115e +008	216,234.3 748	13.4135	1.6259	217,054.2 266
Office Park	4.6612e +007	11,247.57 86	0.6977	0.0846	11,290.22 37
Regional Shopping Center	5.89368e +007	14,221.57 64	0.8822	0.1069	14,275.49 74
Single Family Housing	8.08435e +007	19,507.69 95	1.2101	0.1467	19,581.66 28
<b>Total</b>		<b>269,842.6 873</b>	<b>16.7390</b>	<b>2.0290</b>	<b>270,865.7 947</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.01719e +007	2,454.497 7	0.1523	0.0185	2,463.803 9
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	7.73487e +006	1,866.440 1	0.1158	0.0140	1,873.516 7
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.65799e +007	4,000.757 2	0.2482	0.0301	4,015.926 0
Hotel	1.28372e +006	309.7631	0.0192	2.3300e- 003	310.9376
Industrial Park	8.96115e +008	216,234.3 748	13.4135	1.6259	217,054.2 266
Office Park	4.6612e +007	11,247.57 86	0.6977	0.0846	11,290.22 37
Regional Shopping Center	5.89368e +007	14,221.57 64	0.8822	0.1069	14,275.49 74
Single Family Housing	8.08435e +007	19,507.69 95	1.2101	0.1467	19,581.66 28
<b>Total</b>		<b>269,842.6 873</b>	<b>16.7390</b>	<b>2.0290</b>	<b>270,865.7 947</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	440.5924	4.6152	203.9920	0.2038		12.2984	12.2984		12.2984	12.2984	1,290.774 1	2,687.077 3	3,977.851 4	4.0542	0.0876	4,105.312 8
Unmitigated	440.5924	4.6152	203.9920	0.2038		12.2984	12.2984		12.2984	12.2984	1,290.774 1	2,687.077 3	3,977.851 4	4.0542	0.0876	4,105.312 8

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	42.4417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	354.4240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	39.8033	3.1517	77.2490	0.1971		11.6034	11.6034		11.6034	11.6034	1,290.774 1	2,480.424 5	3,771.198 6	3.8493	0.0876	3,893.539 4
Landscaping	3.9235	1.4636	126.7429	6.6900e-003		0.6950	0.6950		0.6950	0.6950	0.0000	206.6527	206.6527	0.2048	0.0000	211.7734
<b>Total</b>	<b>440.5924</b>	<b>4.6152</b>	<b>203.9920</b>	<b>0.2038</b>		<b>12.2984</b>	<b>12.2984</b>		<b>12.2984</b>	<b>12.2984</b>	<b>1,290.774 1</b>	<b>2,687.077 3</b>	<b>3,977.851 4</b>	<b>4.0542</b>	<b>0.0876</b>	<b>4,105.312 8</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	42.4417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	354.4240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	39.8033	3.1517	77.2490	0.1971		11.6034	11.6034		11.6034	11.6034	1,290.774 1	2,480.424 5	3,771.198 6	3.8493	0.0876	3,893.539 4
Landscaping	3.9235	1.4636	126.7429	6.6900e-003		0.6950	0.6950		0.6950	0.6950	0.0000	206.6527	206.6527	0.2048	0.0000	211.7734
<b>Total</b>	<b>440.5924</b>	<b>4.6152</b>	<b>203.9920</b>	<b>0.2038</b>		<b>12.2984</b>	<b>12.2984</b>		<b>12.2984</b>	<b>12.2984</b>	<b>1,290.774 1</b>	<b>2,687.077 3</b>	<b>3,977.851 4</b>	<b>4.0542</b>	<b>0.0876</b>	<b>4,105.312 8</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	65,253.0170	579.3580	14.0410	83,921.1945
Unmitigated	65,253.0170	579.3580	14.0410	83,921.1945

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	154.611 / 97.4718	796.1450	5.0843	0.1246	960.3767
City Park	0 / 132.85	356.1535	0.0221	2.6800e-003	357.5039
Elementary School	37.319 / 95.9632	386.3603	1.2393	0.0315	426.7380
Golf Course	0 / 115.097	308.5599	0.0191	2.3200e-003	309.7298
Government Office Building	249.338 / 152.82	1,272.2110	8.1987	0.2008	1,537.0202
Hotel	6.84903 / 0.761003	25.7326	0.2246	5.4500e-003	32.9717
Industrial Park	15687.1 / 0	54,265.5645	514.2218	12.4403	70,828.3203
Office Park	575.093 / 352.476	2,934.3317	18.9101	0.4632	3,545.1094
Regional Shopping Center	318.89 / 195.448	1,627.0895	10.4857	0.2568	1,965.7662
Single Family Housing	637.141 / 401.676	3,280.8690	20.9522	0.5134	3,957.6585
<b>Total</b>		<b>65,253.0170</b>	<b>579.3580</b>	<b>14.0410</b>	<b>83,921.1945</b>



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	154.611 / 97.4718	796.1450	5.0843	0.1246	960.3767
City Park	0 / 132.85	356.1535	0.0221	2.6800e-003	357.5039
Elementary School	37.319 / 95.9632	386.3603	1.2393	0.0315	426.7380
Golf Course	0 / 115.097	308.5599	0.0191	2.3200e-003	309.7298
Government Office Building	249.338 / 152.82	1,272.2110	8.1987	0.2008	1,537.0202
Hotel	6.84903 / 0.761003	25.7326	0.2246	5.4500e-003	32.9717
Industrial Park	15687.1 / 0	54,265.5645	514.2218	12.4403	70,828.3203
Office Park	575.093 / 352.476	2,934.3317	18.9101	0.4632	3,545.1094
Regional Shopping Center	318.89 / 195.448	1,627.0895	10.4857	0.2568	1,965.7662
Single Family Housing	637.141 / 401.676	3,280.8690	20.9522	0.5134	3,957.6585
<b>Total</b>		<b>65,253.0170</b>	<b>579.3580</b>	<b>14.0410</b>	<b>83,921.1945</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22,650.09 50	1,338.582 3	0.0000	56,114.65 16
Unmitigated	22,650.09 50	1,338.582 3	0.0000	56,114.65 16

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1091.58	221.5809	13.0951	0.0000	548.9572
City Park	9.59	1.9467	0.1151	0.0000	4.8228
Elementary School	1673.1	339.6242	20.0712	0.0000	841.4045
Golf Course	89.84	18.2367	1.0778	0.0000	45.1807
Government Office Building	1167.24	236.9392	14.0027	0.0000	587.0068
Hotel	147.82	30.0061	1.7733	0.0000	74.3389
Industrial Park	84116.8	17,074.94 21	1,009.100 2	0.0000	42,302.44 63
Office Park	3009.2	610.8404	36.0996	0.0000	1,513.331 3
Regional Shopping Center	4520.36	917.5922	54.2282	0.0000	2,273.295 9
Single Family Housing	15756.3	3,198.386 5	189.0192	0.0000	7,923.867 2
<b>Total</b>		<b>22,650.09 50</b>	<b>1,338.582 3</b>	<b>0.0000</b>	<b>56,114.65 16</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1091.58	221.5809	13.0951	0.0000	548.9572
City Park	9.59	1.9467	0.1151	0.0000	4.8228
Elementary School	1673.1	339.6242	20.0712	0.0000	841.4045
Golf Course	89.84	18.2367	1.0778	0.0000	45.1807
Government Office Building	1167.24	236.9392	14.0027	0.0000	587.0068
Hotel	147.82	30.0061	1.7733	0.0000	74.3389
Industrial Park	84116.8	17,074.94 21	1,009.100 2	0.0000	42,302.44 63
Office Park	3009.2	610.8404	36.0996	0.0000	1,513.331 3
Regional Shopping Center	4520.36	917.5922	54.2282	0.0000	2,273.295 9
Single Family Housing	15756.3	3,198.386 5	189.0192	0.0000	7,923.867 2
<b>Total</b>		<b>22,650.09 50</b>	<b>1,338.582 3</b>	<b>0.0000</b>	<b>56,114.65 16</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Existing Land Uses; 2020)****Los Angeles-South Coast County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,255.10	1000sqft	185.10	1,255,100.00	0
Office Park	3,234.70	1000sqft	120.50	3,234,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,836.10	1000sqft	3,333.90	67,836,100.00	0
City Park	111.50	Acre	111.50	4,856,940.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	270.00	Room	4.40	166,500.00	0
Apartments Low Rise	2,373.00	Dwelling Unit	303.70	2,373,000.00	8488
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	38430
Regional Shopping Center	4,305.10	1000sqft	258.10	4,305,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9	<b>Operational Year</b>	2020		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	531.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE GHG intensity factor for CO2 adjusted back to reflect historical compliance with state RPS requirements.

Land Use - Source: EIR PD; Table 3-1. Gov't office and ele school disaggregated from public facilities. Open / vacant / ROW space not modeled.

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Construction Phase - Existing condition model run - no construction emissions modeled.

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Energy Use - T24 standards adjusted upward to reflect decreased efficiency between 2013/2106 and 2016/2019 standards. See CalEEMod Appendix E5; Tables 1, 3, and 4.

Solid Waste -

Architectural Coating -

Area Coating -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	54.80	303.39
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	2.28	2.68
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.88
tblEnergyUse	T24E	3.58	4.20
tblEnergyUse	T24E	93.13	502.24
tblEnergyUse	T24NG	9,487.85	14,366.19
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24NG	19.72	20.02
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.64
tblEnergyUse	T24NG	1.14	1.16
tblEnergyUse	T24NG	19,108.08	26,696.96
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	392,040.00	166,500.00
tblLandUse	LotAcreage	28.81	185.10
tblLandUse	LotAcreage	74.26	120.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,557.30	3,333.90
tblLandUse	LotAcreage	9.00	4.40
tblLandUse	LotAcreage	148.31	303.70
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	98.83	258.10
tblLandUse	Population	6,787.00	8,488.00
tblLandUse	Population	27,968.00	38,430.00
tblProjectCharacteristics	CO2IntensityFactor	390.98	531.98
tblSolidWaste	SolidWasteGenerationRate	3,008.27	3,009.20
tblTripsAndVMT	WorkerTripNumber	8,190.00	8,191.00
tblTripsAndVMT	WorkerTripNumber	40,952.00	40,953.00
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.73	4.55
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1,160.01	889.88

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	1,551.88	1,647.94
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14
tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.3000e-005	4.8000e-005
tblVehicleEF	HHD	6.50	4.76
tblVehicleEF	HHD	4.58	3.50
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	7.2200e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	6.9040e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.0000e-005	1.2070e-003
tblVehicleEF	HHD	4.3200e-004	4.1300e-004
tblVehicleEF	HHD	0.47	0.34
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.8400e-004	2.8350e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9220e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.0000e-005	1.2070e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	4.3200e-004	4.1300e-004
tblVehicleEF	HHD	0.54	0.55
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.8400e-004	2.8350e-003
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.57	4.44
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	9.6750e-003
tblVehicleEF	HHD	1,160.72	890.35
tblVehicleEF	HHD	1,551.88	1,647.94
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14
tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.2000e-005	4.7000e-005
tblVehicleEF	HHD	6.36	4.65
tblVehicleEF	HHD	4.34	3.32
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	6.6950e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	6.4020e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.6000e-005	1.4810e-003
tblVehicleEF	HHD	4.3800e-004	4.3300e-004
tblVehicleEF	HHD	0.49	0.35
tblVehicleEF	HHD	1.1000e-005	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.8200e-004	2.8540e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9260e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.6000e-005	1.4810e-003
tblVehicleEF	HHD	4.3800e-004	4.3300e-004
tblVehicleEF	HHD	0.56	0.56
tblVehicleEF	HHD	1.1000e-005	0.00
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.8200e-004	2.8540e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.95	4.71
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1,159.03	889.23
tblVehicleEF	HHD	1,551.88	1,647.93
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.4000e-005	4.8000e-005
tblVehicleEF	HHD	6.69	4.90
tblVehicleEF	HHD	4.51	3.44
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	7.9440e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	7.5970e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.1000e-005	1.1830e-003
tblVehicleEF	HHD	5.0900e-004	4.0900e-004
tblVehicleEF	HHD	0.45	0.32
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.9500e-004	2.9800e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9150e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.1000e-005	1.1830e-003
tblVehicleEF	HHD	5.0900e-004	4.0900e-004
tblVehicleEF	HHD	0.51	0.53
tblVehicleEF	HHD	7.0000e-006	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.9500e-004	2.9800e-003
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	LDA	4.0270e-003	4.1670e-003
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.86	1.03
tblVehicleEF	LDA	2.24	3.66
tblVehicleEF	LDA	286.85	297.95
tblVehicleEF	LDA	56.49	72.86
tblVehicleEF	LDA	5.7230e-003	6.0130e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.21	0.29
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.06	0.34
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.06	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.27	0.39
tblVehicleEF	LDA	2.8380e-003	2.9450e-003
tblVehicleEF	LDA	5.5900e-004	7.2000e-004
tblVehicleEF	LDA	0.06	0.34
tblVehicleEF	LDA	0.12	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.06	0.00
tblVehicleEF	LDA	0.02	0.43
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.30	0.43
tblVehicleEF	LDA	4.3050e-003	4.3060e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.95	1.21
tblVehicleEF	LDA	1.90	3.11
tblVehicleEF	LDA	299.91	311.40
tblVehicleEF	LDA	55.86	71.85
tblVehicleEF	LDA	5.2290e-003	5.3390e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.19	0.27
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.10	0.39
tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.08	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.24	0.35
tblVehicleEF	LDA	2.9670e-003	3.0780e-003
tblVehicleEF	LDA	5.5300e-004	7.1000e-004
tblVehicleEF	LDA	0.10	0.39



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.08	0.00
tblVehicleEF	LDA	0.03	0.38
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.27	0.38
tblVehicleEF	LDA	3.9410e-003	4.1300e-003
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.83	0.97
tblVehicleEF	LDA	2.31	3.78
tblVehicleEF	LDA	282.08	292.99
tblVehicleEF	LDA	56.63	73.09
tblVehicleEF	LDA	5.5760e-003	5.9050e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.21	0.29
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.06	0.33
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.05	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.28	0.40
tblVehicleEF	LDA	2.7910e-003	2.8960e-003
tblVehicleEF	LDA	5.6000e-004	7.2300e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.06	0.33
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.05	0.00
tblVehicleEF	LDA	0.02	0.44
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.31	0.44
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.09	0.14
tblVehicleEF	LDT1	1.85	2.79
tblVehicleEF	LDT1	2.45	7.54
tblVehicleEF	LDT1	336.46	366.99
tblVehicleEF	LDT1	67.07	95.18
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.27
tblVehicleEF	LDT1	0.31	0.52
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.16	0.87
tblVehicleEF	LDT1	0.24	0.24
tblVehicleEF	LDT1	0.13	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.10	0.70
tblVehicleEF	LDT1	0.45	0.78
tblVehicleEF	LDT1	3.3290e-003	3.6280e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	6.6400e-004	9.4100e-004
tblVehicleEF	LDT1	0.16	0.87
tblVehicleEF	LDT1	0.24	0.24
tblVehicleEF	LDT1	0.13	0.00
tblVehicleEF	LDT1	0.07	0.86
tblVehicleEF	LDT1	0.10	0.70
tblVehicleEF	LDT1	0.49	0.86
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.08	0.13
tblVehicleEF	LDT1	2.01	3.23
tblVehicleEF	LDT1	2.08	6.36
tblVehicleEF	LDT1	349.70	382.27
tblVehicleEF	LDT1	66.31	93.03
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.14	0.23
tblVehicleEF	LDT1	0.28	0.48
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.24	1.02
tblVehicleEF	LDT1	0.25	0.25
tblVehicleEF	LDT1	0.18	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.09	0.70
tblVehicleEF	LDT1	0.39	0.69

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	3.4600e-003	3.7790e-003
tblVehicleEF	LDT1	6.5600e-004	9.2000e-004
tblVehicleEF	LDT1	0.24	1.02
tblVehicleEF	LDT1	0.25	0.25
tblVehicleEF	LDT1	0.18	0.00
tblVehicleEF	LDT1	0.07	0.76
tblVehicleEF	LDT1	0.09	0.70
tblVehicleEF	LDT1	0.43	0.76
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.09	0.15
tblVehicleEF	LDT1	1.79	2.63
tblVehicleEF	LDT1	2.53	7.81
tblVehicleEF	LDT1	331.61	361.37
tblVehicleEF	LDT1	67.24	95.68
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.26
tblVehicleEF	LDT1	0.31	0.53
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.16	0.85
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	0.12	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.12	0.72

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.46	0.80
tblVehicleEF	LDT1	3.2810e-003	3.5720e-003
tblVehicleEF	LDT1	6.6500e-004	9.4600e-004
tblVehicleEF	LDT1	0.16	0.85
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	0.12	0.00
tblVehicleEF	LDT1	0.07	0.88
tblVehicleEF	LDT1	0.12	0.72
tblVehicleEF	LDT1	0.50	0.88
tblVehicleEF	LDT2	6.3480e-003	5.6730e-003
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	1.24	1.34
tblVehicleEF	LDT2	2.87	4.49
tblVehicleEF	LDT2	367.68	389.08
tblVehicleEF	LDT2	73.77	95.57
tblVehicleEF	LDT2	9.0100e-003	9.4540e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.12	0.13
tblVehicleEF	LDT2	0.35	0.46
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.08	0.35
tblVehicleEF	LDT2	0.14	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.25
tblVehicleEF	LDT2	0.38	0.50
tblVehicleEF	LDT2	3.6380e-003	3.8460e-003
tblVehicleEF	LDT2	7.3000e-004	9.4500e-004
tblVehicleEF	LDT2	0.08	0.35
tblVehicleEF	LDT2	0.14	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.04	0.54
tblVehicleEF	LDT2	0.05	0.25
tblVehicleEF	LDT2	0.42	0.54
tblVehicleEF	LDT2	6.7610e-003	5.8600e-003
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	1.36	1.57
tblVehicleEF	LDT2	2.44	3.82
tblVehicleEF	LDT2	380.97	403.68
tblVehicleEF	LDT2	72.95	94.32
tblVehicleEF	LDT2	8.2120e-003	8.4060e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.10	0.11
tblVehicleEF	LDT2	0.32	0.43
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.13	0.40
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.11	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.34	0.44
tblVehicleEF	LDT2	3.7690e-003	3.9900e-003
tblVehicleEF	LDT2	7.2200e-004	9.3200e-004
tblVehicleEF	LDT2	0.13	0.40
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.11	0.00
tblVehicleEF	LDT2	0.04	0.48
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.37	0.49
tblVehicleEF	LDT2	6.2200e-003	5.6230e-003
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	1.20	1.26
tblVehicleEF	LDT2	2.96	4.65
tblVehicleEF	LDT2	362.81	383.70
tblVehicleEF	LDT2	73.95	95.86
tblVehicleEF	LDT2	8.7850e-003	9.2900e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.35	0.47
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.08	0.34
tblVehicleEF	LDT2	0.15	0.10



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.06	0.26
tblVehicleEF	LDT2	0.39	0.51
tblVehicleEF	LDT2	3.5890e-003	3.7930e-003
tblVehicleEF	LDT2	7.3200e-004	9.4800e-004
tblVehicleEF	LDT2	0.08	0.34
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.04	0.56
tblVehicleEF	LDT2	0.06	0.26
tblVehicleEF	LDT2	0.43	0.56
tblVehicleEF	LHD1	6.0720e-003	6.4230e-003
tblVehicleEF	LHD1	7.3250e-003	8.8270e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21
tblVehicleEF	LHD1	0.86	1.23
tblVehicleEF	LHD1	1.27	2.31
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.09	649.12
tblVehicleEF	LHD1	13.36	20.16
tblVehicleEF	LHD1	6.6800e-004	5.4300e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.84	0.82
tblVehicleEF	LHD1	0.38	0.54
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004
tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	2.9890e-003	0.17
tblVehicleEF	LHD1	0.09	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7700e-003	0.00
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.23	0.24
tblVehicleEF	LHD1	0.10	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.7870e-003	6.3610e-003
tblVehicleEF	LHD1	1.3200e-004	1.9900e-004
tblVehicleEF	LHD1	2.9890e-003	0.17
tblVehicleEF	LHD1	0.09	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	1.7700e-003	0.00
tblVehicleEF	LHD1	0.08	0.16
tblVehicleEF	LHD1	0.23	0.24
tblVehicleEF	LHD1	0.11	0.17
tblVehicleEF	LHD1	6.0860e-003	6.4420e-003
tblVehicleEF	LHD1	7.4710e-003	9.0030e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.87	1.25
tblVehicleEF	LHD1	1.21	2.21
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.11	649.16
tblVehicleEF	LHD1	13.25	19.98
tblVehicleEF	LHD1	6.7100e-004	5.4600e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.79	0.77
tblVehicleEF	LHD1	0.36	0.51
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004
tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	4.5020e-003	0.20
tblVehicleEF	LHD1	0.10	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.5260e-003	0.00
tblVehicleEF	LHD1	0.06	0.08
tblVehicleEF	LHD1	0.22	0.24
tblVehicleEF	LHD1	0.09	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.7880e-003	6.3610e-003
tblVehicleEF	LHD1	1.3100e-004	1.9800e-004
tblVehicleEF	LHD1	4.5020e-003	0.20
tblVehicleEF	LHD1	0.10	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	2.5260e-003	0.00
tblVehicleEF	LHD1	0.08	0.15
tblVehicleEF	LHD1	0.22	0.24
tblVehicleEF	LHD1	0.10	0.16
tblVehicleEF	LHD1	6.0700e-003	6.4190e-003
tblVehicleEF	LHD1	7.2870e-003	8.7800e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21
tblVehicleEF	LHD1	0.86	1.23
tblVehicleEF	LHD1	1.28	2.33
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.08	649.11
tblVehicleEF	LHD1	13.37	20.20
tblVehicleEF	LHD1	6.6800e-004	5.4300e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.83	0.81
tblVehicleEF	LHD1	0.38	0.54
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	3.1840e-003	0.17
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7530e-003	0.00
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.25	0.25
tblVehicleEF	LHD1	0.10	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.7870e-003	6.3600e-003
tblVehicleEF	LHD1	1.3200e-004	2.0000e-004
tblVehicleEF	LHD1	3.1840e-003	0.17
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	1.7530e-003	0.00
tblVehicleEF	LHD1	0.08	0.16
tblVehicleEF	LHD1	0.25	0.25
tblVehicleEF	LHD1	0.11	0.17
tblVehicleEF	LHD2	4.3360e-003	4.7310e-003
tblVehicleEF	LHD2	5.0610e-003	6.7830e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.58	0.78
tblVehicleEF	LHD2	0.88	1.67
tblVehicleEF	LHD2	13.48	13.07

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	696.37	699.26
tblVehicleEF	LHD2	10.49	14.57
tblVehicleEF	LHD2	1.5060e-003	1.3370e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.11	1.15
tblVehicleEF	LHD2	0.27	0.39
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	1.8880e-003	0.12
tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1220e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7820e-003
tblVehicleEF	LHD2	1.0400e-004	1.4400e-004
tblVehicleEF	LHD2	1.8880e-003	0.12

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.1220e-003	0.00
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	0.07	0.12
tblVehicleEF	LHD2	4.3450e-003	4.7450e-003
tblVehicleEF	LHD2	5.1270e-003	6.8650e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.58	0.79
tblVehicleEF	LHD2	0.84	1.60
tblVehicleEF	LHD2	13.48	13.07
tblVehicleEF	LHD2	696.38	699.28
tblVehicleEF	LHD2	10.42	14.44
tblVehicleEF	LHD2	1.5080e-003	1.3400e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.05	1.08
tblVehicleEF	LHD2	0.26	0.37
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	2.8210e-003	0.14
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5880e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.15	0.17
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7830e-003
tblVehicleEF	LHD2	1.0300e-004	1.4300e-004
tblVehicleEF	LHD2	2.8210e-003	0.14
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.5880e-003	0.00
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.15	0.17
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	4.3340e-003	4.7280e-003
tblVehicleEF	LHD2	5.0440e-003	6.7610e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.57	0.77
tblVehicleEF	LHD2	0.89	1.69
tblVehicleEF	LHD2	13.48	13.07
tblVehicleEF	LHD2	696.37	699.25
tblVehicleEF	LHD2	10.50	14.60
tblVehicleEF	LHD2	1.5060e-003	1.3370e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.09	1.13
tblVehicleEF	LHD2	0.27	0.39
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	1.9880e-003	0.12
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0960e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7820e-003
tblVehicleEF	LHD2	1.0400e-004	1.4400e-004
tblVehicleEF	LHD2	1.9880e-003	0.12
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.0960e-003	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.07	0.12
tblVehicleEF	MCY	0.38	0.20
tblVehicleEF	MCY	0.24	0.19
tblVehicleEF	MCY	19.84	14.88
tblVehicleEF	MCY	8.48	7.68
tblVehicleEF	MCY	223.17	198.42
tblVehicleEF	MCY	60.40	51.87
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	9.2200e-003
tblVehicleEF	MCY	1.14	0.62
tblVehicleEF	MCY	0.26	0.16
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.10	2.12
tblVehicleEF	MCY	0.70	3.62
tblVehicleEF	MCY	0.69	0.00
tblVehicleEF	MCY	2.65	1.40
tblVehicleEF	MCY	0.59	3.64
tblVehicleEF	MCY	1.84	1.42
tblVehicleEF	MCY	2.2080e-003	1.9620e-003
tblVehicleEF	MCY	5.9800e-004	5.1300e-004
tblVehicleEF	MCY	1.10	2.12
tblVehicleEF	MCY	0.70	3.62

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	0.69	0.00
tblVehicleEF	MCY	3.27	1.55
tblVehicleEF	MCY	0.59	3.64
tblVehicleEF	MCY	2.00	1.55
tblVehicleEF	MCY	0.38	0.20
tblVehicleEF	MCY	0.21	0.17
tblVehicleEF	MCY	19.07	14.57
tblVehicleEF	MCY	7.74	6.99
tblVehicleEF	MCY	221.70	197.81
tblVehicleEF	MCY	58.50	50.23
tblVehicleEF	MCY	0.06	0.04
tblVehicleEF	MCY	0.01	9.0610e-003
tblVehicleEF	MCY	0.99	0.54
tblVehicleEF	MCY	0.25	0.15
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.79	2.69
tblVehicleEF	MCY	0.77	3.71
tblVehicleEF	MCY	1.13	0.00
tblVehicleEF	MCY	2.58	1.36
tblVehicleEF	MCY	0.56	3.58
tblVehicleEF	MCY	1.63	1.25
tblVehicleEF	MCY	2.1940e-003	1.9560e-003
tblVehicleEF	MCY	5.7900e-004	4.9700e-004
tblVehicleEF	MCY	1.79	2.69

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	0.77	3.71
tblVehicleEF	MCY	1.13	0.00
tblVehicleEF	MCY	3.18	1.36
tblVehicleEF	MCY	0.56	3.58
tblVehicleEF	MCY	1.77	1.36
tblVehicleEF	MCY	0.38	0.21
tblVehicleEF	MCY	0.24	0.19
tblVehicleEF	MCY	19.94	14.94
tblVehicleEF	MCY	8.61	7.81
tblVehicleEF	MCY	223.39	198.53
tblVehicleEF	MCY	60.73	52.19
tblVehicleEF	MCY	0.06	0.04
tblVehicleEF	MCY	0.02	9.3900e-003
tblVehicleEF	MCY	1.11	0.61
tblVehicleEF	MCY	0.27	0.16
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.20	2.09
tblVehicleEF	MCY	0.90	3.61
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.66	1.40
tblVehicleEF	MCY	0.68	3.93
tblVehicleEF	MCY	1.88	1.46
tblVehicleEF	MCY	2.2110e-003	1.9630e-003
tblVehicleEF	MCY	6.0100e-004	5.1600e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	1.20	2.09
tblVehicleEF	MCY	0.90	3.61
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.28	1.58
tblVehicleEF	MCY	0.68	3.93
tblVehicleEF	MCY	2.05	1.58
tblVehicleEF	MDV	9.2700e-003	9.8780e-003
tblVehicleEF	MDV	0.10	0.14
tblVehicleEF	MDV	1.64	1.96
tblVehicleEF	MDV	3.50	5.20
tblVehicleEF	MDV	449.45	473.63
tblVehicleEF	MDV	89.79	116.02
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.16	0.23
tblVehicleEF	MDV	0.43	0.63
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.09	0.42
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	0.10	0.00
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.50	0.73
tblVehicleEF	MDV	4.4440e-003	4.6800e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	8.8900e-004	1.1470e-003
tblVehicleEF	MDV	0.09	0.42
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	0.10	0.00
tblVehicleEF	MDV	0.06	0.80
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.54	0.80
tblVehicleEF	MDV	9.7460e-003	0.01
tblVehicleEF	MDV	0.09	0.12
tblVehicleEF	MDV	1.77	2.22
tblVehicleEF	MDV	2.98	4.42
tblVehicleEF	MDV	463.58	488.99
tblVehicleEF	MDV	88.78	114.53
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.14	0.19
tblVehicleEF	MDV	0.39	0.58
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.15	0.48
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.44	0.65



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	4.5840e-003	4.8320e-003
tblVehicleEF	MDV	8.7900e-004	1.1320e-003
tblVehicleEF	MDV	0.15	0.48
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.06	0.71
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.48	0.71
tblVehicleEF	MDV	9.1130e-003	9.8120e-003
tblVehicleEF	MDV	0.10	0.14
tblVehicleEF	MDV	1.59	1.86
tblVehicleEF	MDV	3.61	5.38
tblVehicleEF	MDV	444.29	467.96
tblVehicleEF	MDV	90.01	116.37
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.16	0.22
tblVehicleEF	MDV	0.43	0.64
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.09	0.41
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	0.09	0.00
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.07	0.32

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.51	0.75
tblVehicleEF	MDV	4.3930e-003	4.6240e-003
tblVehicleEF	MDV	8.9100e-004	1.1500e-003
tblVehicleEF	MDV	0.09	0.41
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	0.09	0.00
tblVehicleEF	MDV	0.06	0.81
tblVehicleEF	MDV	0.07	0.32
tblVehicleEF	MDV	0.56	0.82
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.93	3.83
tblVehicleEF	MH	2.41	3.16
tblVehicleEF	MH	1,557.81	1,609.57
tblVehicleEF	MH	20.79	26.41
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.25	1.53
tblVehicleEF	MH	0.25	0.29
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.06	45.61
tblVehicleEF	MH	0.07	14.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.43	0.00
tblVehicleEF	MH	0.08	0.14
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0600e-004	2.6100e-004
tblVehicleEF	MH	1.06	45.61
tblVehicleEF	MH	0.07	14.14
tblVehicleEF	MH	0.43	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.12	0.17
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.97	3.90
tblVehicleEF	MH	2.27	2.99
tblVehicleEF	MH	1,557.88	1,609.69
tblVehicleEF	MH	20.56	26.11
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.15	1.40
tblVehicleEF	MH	0.24	0.28
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.57	53.98
tblVehicleEF	MH	0.07	14.80
tblVehicleEF	MH	0.62	0.00
tblVehicleEF	MH	0.08	0.14
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0300e-004	2.5800e-004
tblVehicleEF	MH	1.57	53.98
tblVehicleEF	MH	0.07	14.80
tblVehicleEF	MH	0.62	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.12	0.16
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.92	3.81
tblVehicleEF	MH	2.43	3.20
tblVehicleEF	MH	1,557.79	1,609.53
tblVehicleEF	MH	20.83	26.47
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.22	1.50
tblVehicleEF	MH	0.25	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.21	44.41
tblVehicleEF	MH	0.09	14.01
tblVehicleEF	MH	0.44	0.00
tblVehicleEF	MH	0.08	0.13
tblVehicleEF	MH	0.02	0.30
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0600e-004	2.6200e-004
tblVehicleEF	MH	1.21	44.41
tblVehicleEF	MH	0.09	14.01
tblVehicleEF	MH	0.44	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.30
tblVehicleEF	MH	0.12	0.17
tblVehicleEF	MHD	4.4570e-003	0.02
tblVehicleEF	MHD	9.4690e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.40	0.64
tblVehicleEF	MHD	0.87	1.00
tblVehicleEF	MHD	1.61	2.02
tblVehicleEF	MHD	70.09	145.78
tblVehicleEF	MHD	1,129.05	1,240.97
tblVehicleEF	MHD	12.73	15.44
tblVehicleEF	MHD	9.7620e-003	0.02
tblVehicleEF	MHD	0.14	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	9.0660e-003	0.01
tblVehicleEF	MHD	0.62	1.24
tblVehicleEF	MHD	2.74	2.21
tblVehicleEF	MHD	1.00	0.91
tblVehicleEF	MHD	2.2440e-003	5.2410e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05
tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	2.1470e-003	5.0140e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	8.0200e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	4.9400e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.6600e-004	1.3530e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2600e-004	1.5300e-004
tblVehicleEF	MHD	8.0200e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.06
tblVehicleEF	MHD	4.9400e-004	0.00
tblVehicleEF	MHD	0.17	0.08
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	4.2180e-003	0.02
tblVehicleEF	MHD	9.5490e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.31	0.54
tblVehicleEF	MHD	0.88	1.01
tblVehicleEF	MHD	1.53	1.92
tblVehicleEF	MHD	71.71	148.28
tblVehicleEF	MHD	1,129.06	1,241.00
tblVehicleEF	MHD	12.59	15.27
tblVehicleEF	MHD	9.9660e-003	0.02
tblVehicleEF	MHD	0.14	0.14
tblVehicleEF	MHD	8.9200e-003	9.8630e-003
tblVehicleEF	MHD	0.63	1.26
tblVehicleEF	MHD	2.58	2.08
tblVehicleEF	MHD	0.99	0.91
tblVehicleEF	MHD	1.8940e-003	4.4250e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05
tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	1.8120e-003	4.2330e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	1.2080e-003	0.06
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	7.1000e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.8200e-004	1.3770e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2500e-004	1.5100e-004
tblVehicleEF	MHD	1.2080e-003	0.06
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.06
tblVehicleEF	MHD	7.1000e-004	0.00
tblVehicleEF	MHD	0.18	0.07
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10
tblVehicleEF	MHD	4.7990e-003	0.02
tblVehicleEF	MHD	9.4450e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.51	0.79
tblVehicleEF	MHD	0.86	0.99
tblVehicleEF	MHD	1.63	2.04
tblVehicleEF	MHD	67.85	142.30
tblVehicleEF	MHD	1,129.04	1,240.96
tblVehicleEF	MHD	12.75	15.48
tblVehicleEF	MHD	9.4860e-003	0.02
tblVehicleEF	MHD	0.14	0.14
tblVehicleEF	MHD	9.1850e-003	0.01
tblVehicleEF	MHD	0.61	1.23
tblVehicleEF	MHD	2.69	2.17
tblVehicleEF	MHD	1.00	0.91
tblVehicleEF	MHD	2.7270e-003	6.3670e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	2.6090e-003	6.0910e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	8.4900e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	4.8700e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.4500e-004	1.3200e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2600e-004	1.5300e-004
tblVehicleEF	MHD	8.4900e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.04	0.06
tblVehicleEF	MHD	4.8700e-004	0.00
tblVehicleEF	MHD	0.17	0.08
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10
tblVehicleEF	OBUS	9.0530e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.61	0.55
tblVehicleEF	OBUS	1.25	1.35
tblVehicleEF	OBUS	2.54	2.99
tblVehicleEF	OBUS	98.82	84.33

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1,458.58	1,540.52
tblVehicleEF	OBUS	19.86	23.72
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.71	0.47
tblVehicleEF	OBUS	2.50	1.99
tblVehicleEF	OBUS	0.62	0.59
tblVehicleEF	OBUS	3.3790e-003	1.5850e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	3.2330e-003	1.5160e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	1.8690e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.3400e-004	0.00
tblVehicleEF	OBUS	0.14	0.12
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.12	0.14
tblVehicleEF	OBUS	9.4000e-004	7.7200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9700e-004	2.3500e-004
tblVehicleEF	OBUS	1.8690e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	9.3400e-004	0.00
tblVehicleEF	OBUS	0.18	0.10
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	9.0480e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.57	0.53
tblVehicleEF	OBUS	1.27	1.37
tblVehicleEF	OBUS	2.40	2.82
tblVehicleEF	OBUS	100.02	84.73
tblVehicleEF	OBUS	1,458.61	1,540.55
tblVehicleEF	OBUS	19.62	23.44
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.72	0.47
tblVehicleEF	OBUS	2.35	1.86
tblVehicleEF	OBUS	0.61	0.58
tblVehicleEF	OBUS	2.8530e-003	1.3420e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	2.7300e-003	1.2840e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	2.7290e-003	0.11
tblVehicleEF	OBUS	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	1.3230e-003	0.00
tblVehicleEF	OBUS	0.15	0.12
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.12	0.14
tblVehicleEF	OBUS	9.5100e-004	7.7600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9400e-004	2.3200e-004
tblVehicleEF	OBUS	2.7290e-003	0.11
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	1.3230e-003	0.00
tblVehicleEF	OBUS	0.18	0.09
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.13	0.15
tblVehicleEF	OBUS	9.0790e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.66	0.57
tblVehicleEF	OBUS	1.24	1.35
tblVehicleEF	OBUS	2.56	3.02
tblVehicleEF	OBUS	97.15	83.79
tblVehicleEF	OBUS	1,458.57	1,540.51
tblVehicleEF	OBUS	19.91	23.78
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.71	0.48
tblVehicleEF	OBUS	2.46	1.95

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.62	0.60
tblVehicleEF	OBUS	4.1050e-003	1.9210e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	3.9270e-003	1.8380e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	1.9790e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.2100e-004	0.00
tblVehicleEF	OBUS	0.14	0.12
tblVehicleEF	OBUS	0.08	0.10
tblVehicleEF	OBUS	0.12	0.15
tblVehicleEF	OBUS	9.2400e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9700e-004	2.3500e-004
tblVehicleEF	OBUS	1.9790e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.08
tblVehicleEF	OBUS	9.2100e-004	0.00
tblVehicleEF	OBUS	0.18	0.10
tblVehicleEF	OBUS	0.08	0.10
tblVehicleEF	OBUS	0.14	0.16
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	7.9520e-003	1.43
tblVehicleEF	SBUS	5.5910e-003	6.9200e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	2.47	2.65
tblVehicleEF	SBUS	0.66	5.91
tblVehicleEF	SBUS	0.78	1.00
tblVehicleEF	SBUS	350.96	257.85
tblVehicleEF	SBUS	1,142.40	1,278.15
tblVehicleEF	SBUS	4.74	5.86
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.2890e-003	6.0480e-003
tblVehicleEF	SBUS	3.43	1.43
tblVehicleEF	SBUS	5.48	3.72
tblVehicleEF	SBUS	0.77	0.14
tblVehicleEF	SBUS	5.0980e-003	2.3700e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	4.8780e-003	2.2560e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	8.4800e-004	0.05
tblVehicleEF	SBUS	7.2490e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	4.3000e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	3.3450e-003	1.4490e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.7000e-005	5.8000e-005
tblVehicleEF	SBUS	8.4800e-004	0.05
tblVehicleEF	SBUS	7.2490e-003	0.01
tblVehicleEF	SBUS	0.40	0.81
tblVehicleEF	SBUS	4.3000e-004	0.00
tblVehicleEF	SBUS	0.13	0.18
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	8.0370e-003	1.44
tblVehicleEF	SBUS	4.9800e-003	6.1750e-003
tblVehicleEF	SBUS	2.43	2.63
tblVehicleEF	SBUS	0.67	5.93
tblVehicleEF	SBUS	0.64	0.81
tblVehicleEF	SBUS	360.21	261.89
tblVehicleEF	SBUS	1,142.41	1,278.17
tblVehicleEF	SBUS	4.49	5.56
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.1630e-003	5.8980e-003
tblVehicleEF	SBUS	3.51	1.47
tblVehicleEF	SBUS	5.17	3.50
tblVehicleEF	SBUS	0.77	0.13
tblVehicleEF	SBUS	4.3050e-003	2.0470e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	4.1180e-003	1.9470e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	1.2330e-003	0.05
tblVehicleEF	SBUS	7.3700e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	6.0300e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.4320e-003	1.4880e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.5000e-005	5.5000e-005
tblVehicleEF	SBUS	1.2330e-003	0.05
tblVehicleEF	SBUS	7.3700e-003	0.01
tblVehicleEF	SBUS	0.40	0.81
tblVehicleEF	SBUS	6.0300e-004	0.00
tblVehicleEF	SBUS	0.13	0.16
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	7.9270e-003	1.43
tblVehicleEF	SBUS	5.7270e-003	7.0910e-003
tblVehicleEF	SBUS	2.53	2.67
tblVehicleEF	SBUS	0.66	5.91
tblVehicleEF	SBUS	0.81	1.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	338.18	252.27
tblVehicleEF	SBUS	1,142.39	1,278.14
tblVehicleEF	SBUS	4.78	5.92
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.3830e-003	6.1580e-003
tblVehicleEF	SBUS	3.32	1.37
tblVehicleEF	SBUS	5.39	3.66
tblVehicleEF	SBUS	0.77	0.14
tblVehicleEF	SBUS	6.1940e-003	2.8150e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	5.9260e-003	2.6820e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	8.8200e-004	0.05
tblVehicleEF	SBUS	7.8210e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	4.1600e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.2240e-003	1.3960e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.7000e-005	5.9000e-005

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	8.8200e-004	0.05
tblVehicleEF	SBUS	7.8210e-003	0.01
tblVehicleEF	SBUS	0.41	0.81
tblVehicleEF	SBUS	4.1600e-004	0.00
tblVehicleEF	SBUS	0.13	0.18
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.04	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.71	0.85
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.66	9.57
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.1050e-003	8.2200e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003
tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	5.6300e-004	0.02
tblVehicleEF	UBUS	7.6040e-003	6.4870e-003
tblVehicleEF	UBUS	4.4800e-004	0.00
tblVehicleEF	UBUS	0.15	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	1.8230e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.6000e-005	9.5000e-005
tblVehicleEF	UBUS	5.6300e-004	0.02
tblVehicleEF	UBUS	7.6040e-003	6.4870e-003
tblVehicleEF	UBUS	4.4800e-004	0.00
tblVehicleEF	UBUS	6.37	0.04
tblVehicleEF	UBUS	1.8230e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.62	0.75
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.52	9.40
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.0310e-003	8.1240e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003
tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	8.2300e-004	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	7.8580e-003	6.7650e-003
tblVehicleEF	UBUS	6.2300e-004	0.00
tblVehicleEF	UBUS	0.15	0.14
tblVehicleEF	UBUS	1.6570e-003	0.01
tblVehicleEF	UBUS	0.04	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.4000e-005	9.3000e-005
tblVehicleEF	UBUS	8.2300e-004	0.02
tblVehicleEF	UBUS	7.8580e-003	6.7650e-003
tblVehicleEF	UBUS	6.2300e-004	0.00
tblVehicleEF	UBUS	6.37	0.03
tblVehicleEF	UBUS	1.6570e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.72	0.87
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.69	9.61
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.2190e-003	8.3450e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	5.5100e-004	0.02
tblVehicleEF	UBUS	8.1190e-003	6.4360e-003
tblVehicleEF	UBUS	4.2600e-004	0.00
tblVehicleEF	UBUS	0.15	0.14
tblVehicleEF	UBUS	2.2150e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.6000e-005	9.5000e-005
tblVehicleEF	UBUS	5.5100e-004	0.02
tblVehicleEF	UBUS	8.1190e-003	6.4360e-003
tblVehicleEF	UBUS	4.2600e-004	0.00
tblVehicleEF	UBUS	6.37	0.04
tblVehicleEF	UBUS	2.2150e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.60
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	26.33
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	14.90
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	31.75
tblWater	IndoorWaterUseRate	574,915,354.63	575,093,088.38
tblWater	OutdoorWaterUseRate	352,367,475.42	352,476,409.01

**2.0 Emissions Summary**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction

### Mitigated Construction

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,390.2556	263.8420	7,193.8655	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7924	220,558.3652	334,385.1576	341.2598	7.7258	345,218.9264
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963
Mobile	1,649.4588	1,757.4320	17,259.5447	31.0000	2,547.1967	27.9434	2,575.1402	636.0652	26.1242	662.1895		3,166,221.2261	3,166,221.2261	172.2348	131.0587	3,209,582.5781
<b>Total</b>	<b>7,073.7453</b>	<b>2,324.6388</b>	<b>24,669.2308</b>	<b>48.6753</b>	<b>2,547.1967</b>	<b>985.2865</b>	<b>3,532.4832</b>	<b>636.0652</b>	<b>983.4673</b>	<b>1,619.5326</b>	<b>113,826.7924</b>	<b>3,758,025.9561</b>	<b>3,871,852.7485</b>	<b>520.6101</b>	<b>145.5906</b>	<b>3,928,254.0008</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,390.2556	263.8420	7,193.8655	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7924	220,558.3652	334,385.1576	341.2598	7.7258	345,218.9264
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963
Mobile	1,649.4588	1,757.4320	17,259.5447	31.0000	2,547.1967	27.9434	2,575.1402	636.0652	26.1242	662.1895		3,166,221.2261	3,166,221.2261	172.2348	131.0587	3,209,582.5781
<b>Total</b>	<b>7,073.7453</b>	<b>2,324.6388</b>	<b>24,669.2308</b>	<b>48.6753</b>	<b>2,547.1967</b>	<b>985.2865</b>	<b>3,532.4832</b>	<b>636.0652</b>	<b>983.4673</b>	<b>1,619.5326</b>	<b>113,826.7924</b>	<b>3,758,025.9561</b>	<b>3,871,852.7485</b>	<b>520.6101</b>	<b>145.5906</b>	<b>3,928,254.0008</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	12/31/2018	5	0	
2	Architectural Coating	Architectural Coating	1/13/2019	1/11/2019	5	0	
3	Grading	Grading	4/30/2019	4/29/2019	5	0	
4	Site Preparation	Site Preparation	5/1/2019	4/30/2019	5	0	
5	Building Construction	Building Construction	9/29/2019	9/27/2019	5	0	
6	Paving	Paving	11/14/2019	11/13/2019	5	0	

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 40,449,780; Residential Outdoor: 13,483,260; Non-Residential Indoor: 117,126,750; Non-Residential Outdoor: 39,042,250; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8,191.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40,953.00	15,583.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 3.3 Architectural Coating - 2019

### **Mitigated Construction On-Site**

[illegible]

### **Mitigated Construction Off-Site**

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]



## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 3.5 Site Preparation - 2019

### **Mitigated Construction On-Site**

[illegible]

### **Mitigated Construction Off-Site**

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### **Mitigated Construction Off-Site**

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction On-Site**

[illegible]

### **Mitigated Construction Off-Site**

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1,649.4588	1,757.4320	17,259.5447	31.0000	2,547.1967	27.9434	2,575.1402	636.0652	26.1242	662.1895		3,166,221.2261	3,166,221.2261	172.2348	131.0587	3,209,582.5781
Unmitigated	1,649.4588	1,757.4320	17,259.5447	31.0000	2,547.1967	27.9434	2,575.1402	636.0652	26.1242	662.1895		3,166,221.2261	3,166,221.2261	172.2348	131.0587	3,209,582.5781

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586
Total	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586

**4.3 Trip Type Information**



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.60	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
City Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Elementary School	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Golf Course	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Government Office Building	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Hotel	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Industrial Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Office Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Regional Shopping Center	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Single Family Housing	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963
NaturalGas Unmitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35968.1	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10984.4	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1.94402e+006	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87115.3	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19461.4	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134.905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36.847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35.9681	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10.9844	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1944.02	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87.1153	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19.4614	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886.298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5,390.2556	263.8420	7,193.8655	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7924	220,558.3652	334,385.1576	341.2598	7.7258	345,218.9264
Unmitigated	5,390.2556	263.8420	7,193.8655	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7924	220,558.3652	334,385.1576	341.2598	7.7258	345,218.9264

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.0491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.2615	252.1336	6,179.9220	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7924	218,736.0000	332,562.7924	339.4535	7.7258	343,351.4046
Landscaping	31.3880	11.7084	1,013.9435	0.0535		5.5599	5.5599		5.5599	5.5599		1,822.3652	1,822.3652	1.8063		1,867.5218
<b>Total</b>	<b>5,390.2556</b>	<b>263.8420</b>	<b>7,193.8655</b>	<b>15.8191</b>		<b>933.8308</b>	<b>933.8308</b>		<b>933.8308</b>	<b>933.8308</b>	<b>113,826.7924</b>	<b>220,558.3652</b>	<b>334,385.1576</b>	<b>341.2597</b>	<b>7.7258</b>	<b>345,218.9264</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.0491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.2615	252.1336	6,179.9220	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7924	218,736.0000	332,562.7924	339.4535	7.7258	343,351.4046
Landscaping	31.3880	11.7084	1,013.9435	0.0535		5.5599	5.5599		5.5599	5.5599		1,822.3652	1,822.3652	1.8063		1,867.5218
<b>Total</b>	<b>5,390.2556</b>	<b>263.8420</b>	<b>7,193.8655</b>	<b>15.8191</b>		<b>933.8308</b>	<b>933.8308</b>		<b>933.8308</b>	<b>933.8308</b>	<b>113,826.7924</b>	<b>220,558.3652</b>	<b>334,385.1576</b>	<b>341.2597</b>	<b>7.7258</b>	<b>345,218.9264</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Existing Land Uses; 2020)****Los Angeles-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,255.10	1000sqft	185.10	1,255,100.00	0
Office Park	3,234.70	1000sqft	120.50	3,234,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,836.10	1000sqft	3,333.90	67,836,100.00	0
City Park	111.50	Acre	111.50	4,856,940.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	270.00	Room	4.40	166,500.00	0
Apartments Low Rise	2,373.00	Dwelling Unit	303.70	2,373,000.00	8488
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	38430
Regional Shopping Center	4,305.10	1000sqft	258.10	4,305,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2020
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	531.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE GHG intensity factor for CO2 adjusted back to reflect historical compliance with state RPS requirements.

Land Use - Source: EIR PD; Table 3-1. Gov't office and ele school disaggregated from public facilities. Open / vacant / ROW space not modeled.



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Construction Phase - Existing condition model run - no construction emissions modeled.

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2020.

Energy Use - T24 standards adjusted upward to reflect decreased efficiency between 2013/2106 and 2016/2019 standards. See CalEEMod Appendix E5; Tables 1, 3, and 4.

Solid Waste -

Architectural Coating -

Area Coating -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	54.80	303.39
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	2.28	2.68
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.88
tblEnergyUse	T24E	3.58	4.20
tblEnergyUse	T24E	93.13	502.24
tblEnergyUse	T24NG	9,487.85	14,366.19
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24NG	19.72	20.02
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.64
tblEnergyUse	T24NG	1.14	1.16
tblEnergyUse	T24NG	19,108.08	26,696.96
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	392,040.00	166,500.00
tblLandUse	LotAcreage	28.81	185.10
tblLandUse	LotAcreage	74.26	120.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,557.30	3,333.90
tblLandUse	LotAcreage	9.00	4.40
tblLandUse	LotAcreage	148.31	303.70
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	98.83	258.10
tblLandUse	Population	6,787.00	8,488.00
tblLandUse	Population	27,968.00	38,430.00
tblProjectCharacteristics	CO2IntensityFactor	390.98	531.98
tblSolidWaste	SolidWasteGenerationRate	3,008.27	3,009.20
tblTripsAndVMT	WorkerTripNumber	8,190.00	8,191.00
tblTripsAndVMT	WorkerTripNumber	40,952.00	40,953.00
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.73	4.55
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1,160.01	889.88

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	1,551.88	1,647.94
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14
tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.3000e-005	4.8000e-005
tblVehicleEF	HHD	6.50	4.76
tblVehicleEF	HHD	4.58	3.50
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	7.2200e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	6.9040e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.0000e-005	1.2070e-003
tblVehicleEF	HHD	4.3200e-004	4.1300e-004
tblVehicleEF	HHD	0.47	0.34
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.8400e-004	2.8350e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9220e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.0000e-005	1.2070e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	4.3200e-004	4.1300e-004
tblVehicleEF	HHD	0.54	0.55
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.8400e-004	2.8350e-003
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.57	4.44
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	9.6750e-003
tblVehicleEF	HHD	1,160.72	890.35
tblVehicleEF	HHD	1,551.88	1,647.94
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14
tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.2000e-005	4.7000e-005
tblVehicleEF	HHD	6.36	4.65
tblVehicleEF	HHD	4.34	3.32
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	6.6950e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	6.4020e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.6000e-005	1.4810e-003
tblVehicleEF	HHD	4.3800e-004	4.3300e-004
tblVehicleEF	HHD	0.49	0.35
tblVehicleEF	HHD	1.1000e-005	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.8200e-004	2.8540e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9260e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.6000e-005	1.4810e-003
tblVehicleEF	HHD	4.3800e-004	4.3300e-004
tblVehicleEF	HHD	0.56	0.56
tblVehicleEF	HHD	1.1000e-005	0.00
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.8200e-004	2.8540e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.18
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	5.95	4.71
tblVehicleEF	HHD	0.77	0.82
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1,159.03	889.23
tblVehicleEF	HHD	1,551.88	1,647.93
tblVehicleEF	HHD	0.11	0.17
tblVehicleEF	HHD	0.18	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.25	0.26
tblVehicleEF	HHD	5.4000e-005	4.8000e-005
tblVehicleEF	HHD	6.69	4.90
tblVehicleEF	HHD	4.51	3.44
tblVehicleEF	HHD	1.76	1.91
tblVehicleEF	HHD	0.01	7.9440e-003
tblVehicleEF	HHD	0.06	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	3.0000e-006	8.0000e-006
tblVehicleEF	HHD	0.01	7.5970e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	8.8550e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	3.0000e-006	7.0000e-006
tblVehicleEF	HHD	1.1000e-005	1.1830e-003
tblVehicleEF	HHD	5.0900e-004	4.0900e-004
tblVehicleEF	HHD	0.45	0.32
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	1.9500e-004	2.9800e-003
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.01	7.9150e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	2.0000e-006
tblVehicleEF	HHD	1.1000e-005	1.1830e-003
tblVehicleEF	HHD	5.0900e-004	4.0900e-004
tblVehicleEF	HHD	0.51	0.53
tblVehicleEF	HHD	7.0000e-006	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	1.9500e-004	2.9800e-003
tblVehicleEF	HHD	3.0000e-006	1.0000e-006
tblVehicleEF	LDA	4.0270e-003	4.1670e-003
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.86	1.03
tblVehicleEF	LDA	2.24	3.66
tblVehicleEF	LDA	286.85	297.95
tblVehicleEF	LDA	56.49	72.86
tblVehicleEF	LDA	5.7230e-003	6.0130e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.21	0.29
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.06	0.34
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.06	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.27	0.39
tblVehicleEF	LDA	2.8380e-003	2.9450e-003
tblVehicleEF	LDA	5.5900e-004	7.2000e-004
tblVehicleEF	LDA	0.06	0.34
tblVehicleEF	LDA	0.12	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.06	0.00
tblVehicleEF	LDA	0.02	0.43
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.30	0.43
tblVehicleEF	LDA	4.3050e-003	4.3060e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.95	1.21
tblVehicleEF	LDA	1.90	3.11
tblVehicleEF	LDA	299.91	311.40
tblVehicleEF	LDA	55.86	71.85
tblVehicleEF	LDA	5.2290e-003	5.3390e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.19	0.27
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.10	0.39
tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.08	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.24	0.35
tblVehicleEF	LDA	2.9670e-003	3.0780e-003
tblVehicleEF	LDA	5.5300e-004	7.1000e-004
tblVehicleEF	LDA	0.10	0.39



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.08	0.00
tblVehicleEF	LDA	0.03	0.38
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.27	0.38
tblVehicleEF	LDA	3.9410e-003	4.1300e-003
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	0.83	0.97
tblVehicleEF	LDA	2.31	3.78
tblVehicleEF	LDA	282.08	292.99
tblVehicleEF	LDA	56.63	73.09
tblVehicleEF	LDA	5.5760e-003	5.9050e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.21	0.29
tblVehicleEF	LDA	0.04	8.5710e-003
tblVehicleEF	LDA	2.0420e-003	1.8430e-003
tblVehicleEF	LDA	2.0720e-003	2.4370e-003
tblVehicleEF	LDA	0.02	3.0000e-003
tblVehicleEF	LDA	1.8820e-003	1.6980e-003
tblVehicleEF	LDA	1.9060e-003	2.2410e-003
tblVehicleEF	LDA	0.06	0.33
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.05	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.28	0.40
tblVehicleEF	LDA	2.7910e-003	2.8960e-003
tblVehicleEF	LDA	5.6000e-004	7.2300e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.06	0.33
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.05	0.00
tblVehicleEF	LDA	0.02	0.44
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.31	0.44
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.09	0.14
tblVehicleEF	LDT1	1.85	2.79
tblVehicleEF	LDT1	2.45	7.54
tblVehicleEF	LDT1	336.46	366.99
tblVehicleEF	LDT1	67.07	95.18
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.27
tblVehicleEF	LDT1	0.31	0.52
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.16	0.87
tblVehicleEF	LDT1	0.24	0.24
tblVehicleEF	LDT1	0.13	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.10	0.70
tblVehicleEF	LDT1	0.45	0.78
tblVehicleEF	LDT1	3.3290e-003	3.6280e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	6.6400e-004	9.4100e-004
tblVehicleEF	LDT1	0.16	0.87
tblVehicleEF	LDT1	0.24	0.24
tblVehicleEF	LDT1	0.13	0.00
tblVehicleEF	LDT1	0.07	0.86
tblVehicleEF	LDT1	0.10	0.70
tblVehicleEF	LDT1	0.49	0.86
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.08	0.13
tblVehicleEF	LDT1	2.01	3.23
tblVehicleEF	LDT1	2.08	6.36
tblVehicleEF	LDT1	349.70	382.27
tblVehicleEF	LDT1	66.31	93.03
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.14	0.23
tblVehicleEF	LDT1	0.28	0.48
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.24	1.02
tblVehicleEF	LDT1	0.25	0.25
tblVehicleEF	LDT1	0.18	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.09	0.70
tblVehicleEF	LDT1	0.39	0.69

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	3.4600e-003	3.7790e-003
tblVehicleEF	LDT1	6.5600e-004	9.2000e-004
tblVehicleEF	LDT1	0.24	1.02
tblVehicleEF	LDT1	0.25	0.25
tblVehicleEF	LDT1	0.18	0.00
tblVehicleEF	LDT1	0.07	0.76
tblVehicleEF	LDT1	0.09	0.70
tblVehicleEF	LDT1	0.43	0.76
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.09	0.15
tblVehicleEF	LDT1	1.79	2.63
tblVehicleEF	LDT1	2.53	7.81
tblVehicleEF	LDT1	331.61	361.37
tblVehicleEF	LDT1	67.24	95.68
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.26
tblVehicleEF	LDT1	0.31	0.53
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	3.2490e-003	3.5450e-003
tblVehicleEF	LDT1	3.0890e-003	4.1500e-003
tblVehicleEF	LDT1	0.02	3.8170e-003
tblVehicleEF	LDT1	2.9900e-003	3.2630e-003
tblVehicleEF	LDT1	2.8400e-003	3.8160e-003
tblVehicleEF	LDT1	0.16	0.85
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	0.12	0.00
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.12	0.72

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.46	0.80
tblVehicleEF	LDT1	3.2810e-003	3.5720e-003
tblVehicleEF	LDT1	6.6500e-004	9.4600e-004
tblVehicleEF	LDT1	0.16	0.85
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	0.12	0.00
tblVehicleEF	LDT1	0.07	0.88
tblVehicleEF	LDT1	0.12	0.72
tblVehicleEF	LDT1	0.50	0.88
tblVehicleEF	LDT2	6.3480e-003	5.6730e-003
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	1.24	1.34
tblVehicleEF	LDT2	2.87	4.49
tblVehicleEF	LDT2	367.68	389.08
tblVehicleEF	LDT2	73.77	95.57
tblVehicleEF	LDT2	9.0100e-003	9.4540e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.12	0.13
tblVehicleEF	LDT2	0.35	0.46
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.08	0.35
tblVehicleEF	LDT2	0.14	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.25
tblVehicleEF	LDT2	0.38	0.50
tblVehicleEF	LDT2	3.6380e-003	3.8460e-003
tblVehicleEF	LDT2	7.3000e-004	9.4500e-004
tblVehicleEF	LDT2	0.08	0.35
tblVehicleEF	LDT2	0.14	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.04	0.54
tblVehicleEF	LDT2	0.05	0.25
tblVehicleEF	LDT2	0.42	0.54
tblVehicleEF	LDT2	6.7610e-003	5.8600e-003
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	1.36	1.57
tblVehicleEF	LDT2	2.44	3.82
tblVehicleEF	LDT2	380.97	403.68
tblVehicleEF	LDT2	72.95	94.32
tblVehicleEF	LDT2	8.2120e-003	8.4060e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.10	0.11
tblVehicleEF	LDT2	0.32	0.43
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.13	0.40
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.11	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.34	0.44
tblVehicleEF	LDT2	3.7690e-003	3.9900e-003
tblVehicleEF	LDT2	7.2200e-004	9.3200e-004
tblVehicleEF	LDT2	0.13	0.40
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.11	0.00
tblVehicleEF	LDT2	0.04	0.48
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.37	0.49
tblVehicleEF	LDT2	6.2200e-003	5.6230e-003
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	1.20	1.26
tblVehicleEF	LDT2	2.96	4.65
tblVehicleEF	LDT2	362.81	383.70
tblVehicleEF	LDT2	73.95	95.86
tblVehicleEF	LDT2	8.7850e-003	9.2900e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.35	0.47
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	2.1340e-003	1.9570e-003
tblVehicleEF	LDT2	2.0990e-003	2.4980e-003
tblVehicleEF	LDT2	0.02	3.6370e-003
tblVehicleEF	LDT2	1.9640e-003	1.8010e-003
tblVehicleEF	LDT2	1.9300e-003	2.2970e-003
tblVehicleEF	LDT2	0.08	0.34
tblVehicleEF	LDT2	0.15	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.06	0.26
tblVehicleEF	LDT2	0.39	0.51
tblVehicleEF	LDT2	3.5890e-003	3.7930e-003
tblVehicleEF	LDT2	7.3200e-004	9.4800e-004
tblVehicleEF	LDT2	0.08	0.34
tblVehicleEF	LDT2	0.15	0.10
tblVehicleEF	LDT2	0.08	0.00
tblVehicleEF	LDT2	0.04	0.56
tblVehicleEF	LDT2	0.06	0.26
tblVehicleEF	LDT2	0.43	0.56
tblVehicleEF	LHD1	6.0720e-003	6.4230e-003
tblVehicleEF	LHD1	7.3250e-003	8.8270e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21
tblVehicleEF	LHD1	0.86	1.23
tblVehicleEF	LHD1	1.27	2.31
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.09	649.12
tblVehicleEF	LHD1	13.36	20.16
tblVehicleEF	LHD1	6.6800e-004	5.4300e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.84	0.82
tblVehicleEF	LHD1	0.38	0.54
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004
tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	2.9890e-003	0.17
tblVehicleEF	LHD1	0.09	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7700e-003	0.00
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.23	0.24
tblVehicleEF	LHD1	0.10	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.7870e-003	6.3610e-003
tblVehicleEF	LHD1	1.3200e-004	1.9900e-004
tblVehicleEF	LHD1	2.9890e-003	0.17
tblVehicleEF	LHD1	0.09	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	1.7700e-003	0.00
tblVehicleEF	LHD1	0.08	0.16
tblVehicleEF	LHD1	0.23	0.24
tblVehicleEF	LHD1	0.11	0.17
tblVehicleEF	LHD1	6.0860e-003	6.4420e-003
tblVehicleEF	LHD1	7.4710e-003	9.0030e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.87	1.25
tblVehicleEF	LHD1	1.21	2.21
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.11	649.16
tblVehicleEF	LHD1	13.25	19.98
tblVehicleEF	LHD1	6.7100e-004	5.4600e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.79	0.77
tblVehicleEF	LHD1	0.36	0.51
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004
tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	4.5020e-003	0.20
tblVehicleEF	LHD1	0.10	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.5260e-003	0.00
tblVehicleEF	LHD1	0.06	0.08
tblVehicleEF	LHD1	0.22	0.24
tblVehicleEF	LHD1	0.09	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.7880e-003	6.3610e-003
tblVehicleEF	LHD1	1.3100e-004	1.9800e-004
tblVehicleEF	LHD1	4.5020e-003	0.20
tblVehicleEF	LHD1	0.10	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	2.5260e-003	0.00
tblVehicleEF	LHD1	0.08	0.15
tblVehicleEF	LHD1	0.22	0.24
tblVehicleEF	LHD1	0.10	0.16
tblVehicleEF	LHD1	6.0700e-003	6.4190e-003
tblVehicleEF	LHD1	7.2870e-003	8.7800e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.20	0.21
tblVehicleEF	LHD1	0.86	1.23
tblVehicleEF	LHD1	1.28	2.33
tblVehicleEF	LHD1	8.98	8.85
tblVehicleEF	LHD1	694.08	649.11
tblVehicleEF	LHD1	13.37	20.20
tblVehicleEF	LHD1	6.6800e-004	5.4300e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.83	0.81
tblVehicleEF	LHD1	0.38	0.54
tblVehicleEF	LHD1	6.8400e-004	5.1100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.5330e-003	9.0810e-003
tblVehicleEF	LHD1	7.1250e-003	0.01
tblVehicleEF	LHD1	3.3300e-004	3.8500e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.5500e-004	4.8900e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.3830e-003	2.2700e-003
tblVehicleEF	LHD1	6.7840e-003	9.7570e-003
tblVehicleEF	LHD1	3.0700e-004	3.5400e-004
tblVehicleEF	LHD1	3.1840e-003	0.17
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7530e-003	0.00
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.25	0.25
tblVehicleEF	LHD1	0.10	0.15
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.7870e-003	6.3600e-003
tblVehicleEF	LHD1	1.3200e-004	2.0000e-004
tblVehicleEF	LHD1	3.1840e-003	0.17
tblVehicleEF	LHD1	0.11	0.05
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	1.7530e-003	0.00
tblVehicleEF	LHD1	0.08	0.16
tblVehicleEF	LHD1	0.25	0.25
tblVehicleEF	LHD1	0.11	0.17
tblVehicleEF	LHD2	4.3360e-003	4.7310e-003
tblVehicleEF	LHD2	5.0610e-003	6.7830e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.58	0.78
tblVehicleEF	LHD2	0.88	1.67
tblVehicleEF	LHD2	13.48	13.07

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	696.37	699.26
tblVehicleEF	LHD2	10.49	14.57
tblVehicleEF	LHD2	1.5060e-003	1.3370e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.11	1.15
tblVehicleEF	LHD2	0.27	0.39
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	1.8880e-003	0.12
tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1220e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7820e-003
tblVehicleEF	LHD2	1.0400e-004	1.4400e-004
tblVehicleEF	LHD2	1.8880e-003	0.12

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.1220e-003	0.00
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	0.07	0.12
tblVehicleEF	LHD2	4.3450e-003	4.7450e-003
tblVehicleEF	LHD2	5.1270e-003	6.8650e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.58	0.79
tblVehicleEF	LHD2	0.84	1.60
tblVehicleEF	LHD2	13.48	13.07
tblVehicleEF	LHD2	696.38	699.28
tblVehicleEF	LHD2	10.42	14.44
tblVehicleEF	LHD2	1.5080e-003	1.3400e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.05	1.08
tblVehicleEF	LHD2	0.26	0.37
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	2.8210e-003	0.14
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5880e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.15	0.17
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7830e-003
tblVehicleEF	LHD2	1.0300e-004	1.4300e-004
tblVehicleEF	LHD2	2.8210e-003	0.14
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.5880e-003	0.00
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.15	0.17
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	4.3340e-003	4.7280e-003
tblVehicleEF	LHD2	5.0440e-003	6.7610e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.57	0.77
tblVehicleEF	LHD2	0.89	1.69
tblVehicleEF	LHD2	13.48	13.07
tblVehicleEF	LHD2	696.37	699.25
tblVehicleEF	LHD2	10.50	14.60
tblVehicleEF	LHD2	1.5060e-003	1.3370e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.09	0.08
tblVehicleEF	LHD2	1.09	1.13
tblVehicleEF	LHD2	0.27	0.39
tblVehicleEF	LHD2	1.1850e-003	1.0100e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.9000e-004	2.2400e-004
tblVehicleEF	LHD2	1.1330e-003	9.6600e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6030e-003	2.5170e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.7400e-004	2.0600e-004
tblVehicleEF	LHD2	1.9880e-003	0.12
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0960e-003	0.00
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.07	0.11
tblVehicleEF	LHD2	1.2900e-004	1.2600e-004
tblVehicleEF	LHD2	6.7500e-003	6.7820e-003
tblVehicleEF	LHD2	1.0400e-004	1.4400e-004
tblVehicleEF	LHD2	1.9880e-003	0.12
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.0960e-003	0.00



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.07	0.12
tblVehicleEF	MCY	0.38	0.20
tblVehicleEF	MCY	0.24	0.19
tblVehicleEF	MCY	19.84	14.88
tblVehicleEF	MCY	8.48	7.68
tblVehicleEF	MCY	223.17	198.42
tblVehicleEF	MCY	60.40	51.87
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	9.2200e-003
tblVehicleEF	MCY	1.14	0.62
tblVehicleEF	MCY	0.26	0.16
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.10	2.12
tblVehicleEF	MCY	0.70	3.62
tblVehicleEF	MCY	0.69	0.00
tblVehicleEF	MCY	2.65	1.40
tblVehicleEF	MCY	0.59	3.64
tblVehicleEF	MCY	1.84	1.42
tblVehicleEF	MCY	2.2080e-003	1.9620e-003
tblVehicleEF	MCY	5.9800e-004	5.1300e-004
tblVehicleEF	MCY	1.10	2.12
tblVehicleEF	MCY	0.70	3.62

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	0.69	0.00
tblVehicleEF	MCY	3.27	1.55
tblVehicleEF	MCY	0.59	3.64
tblVehicleEF	MCY	2.00	1.55
tblVehicleEF	MCY	0.38	0.20
tblVehicleEF	MCY	0.21	0.17
tblVehicleEF	MCY	19.07	14.57
tblVehicleEF	MCY	7.74	6.99
tblVehicleEF	MCY	221.70	197.81
tblVehicleEF	MCY	58.50	50.23
tblVehicleEF	MCY	0.06	0.04
tblVehicleEF	MCY	0.01	9.0610e-003
tblVehicleEF	MCY	0.99	0.54
tblVehicleEF	MCY	0.25	0.15
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.79	2.69
tblVehicleEF	MCY	0.77	3.71
tblVehicleEF	MCY	1.13	0.00
tblVehicleEF	MCY	2.58	1.36
tblVehicleEF	MCY	0.56	3.58
tblVehicleEF	MCY	1.63	1.25
tblVehicleEF	MCY	2.1940e-003	1.9560e-003
tblVehicleEF	MCY	5.7900e-004	4.9700e-004
tblVehicleEF	MCY	1.79	2.69

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	0.77	3.71
tblVehicleEF	MCY	1.13	0.00
tblVehicleEF	MCY	3.18	1.36
tblVehicleEF	MCY	0.56	3.58
tblVehicleEF	MCY	1.77	1.36
tblVehicleEF	MCY	0.38	0.21
tblVehicleEF	MCY	0.24	0.19
tblVehicleEF	MCY	19.94	14.94
tblVehicleEF	MCY	8.61	7.81
tblVehicleEF	MCY	223.39	198.53
tblVehicleEF	MCY	60.73	52.19
tblVehicleEF	MCY	0.06	0.04
tblVehicleEF	MCY	0.02	9.3900e-003
tblVehicleEF	MCY	1.11	0.61
tblVehicleEF	MCY	0.27	0.16
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.3030e-003	2.2020e-003
tblVehicleEF	MCY	3.4470e-003	4.1070e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.1550e-003	2.0650e-003
tblVehicleEF	MCY	3.2520e-003	3.8800e-003
tblVehicleEF	MCY	1.20	2.09
tblVehicleEF	MCY	0.90	3.61
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.66	1.40
tblVehicleEF	MCY	0.68	3.93
tblVehicleEF	MCY	1.88	1.46
tblVehicleEF	MCY	2.2110e-003	1.9630e-003
tblVehicleEF	MCY	6.0100e-004	5.1600e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	1.20	2.09
tblVehicleEF	MCY	0.90	3.61
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.28	1.58
tblVehicleEF	MCY	0.68	3.93
tblVehicleEF	MCY	2.05	1.58
tblVehicleEF	MDV	9.2700e-003	9.8780e-003
tblVehicleEF	MDV	0.10	0.14
tblVehicleEF	MDV	1.64	1.96
tblVehicleEF	MDV	3.50	5.20
tblVehicleEF	MDV	449.45	473.63
tblVehicleEF	MDV	89.79	116.02
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.16	0.23
tblVehicleEF	MDV	0.43	0.63
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.09	0.42
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	0.10	0.00
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.50	0.73
tblVehicleEF	MDV	4.4440e-003	4.6800e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	8.8900e-004	1.1470e-003
tblVehicleEF	MDV	0.09	0.42
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	0.10	0.00
tblVehicleEF	MDV	0.06	0.80
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.54	0.80
tblVehicleEF	MDV	9.7460e-003	0.01
tblVehicleEF	MDV	0.09	0.12
tblVehicleEF	MDV	1.77	2.22
tblVehicleEF	MDV	2.98	4.42
tblVehicleEF	MDV	463.58	488.99
tblVehicleEF	MDV	88.78	114.53
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.14	0.19
tblVehicleEF	MDV	0.39	0.58
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.15	0.48
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.44	0.65

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	4.5840e-003	4.8320e-003
tblVehicleEF	MDV	8.7900e-004	1.1320e-003
tblVehicleEF	MDV	0.15	0.48
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.06	0.71
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.48	0.71
tblVehicleEF	MDV	9.1130e-003	9.8120e-003
tblVehicleEF	MDV	0.10	0.14
tblVehicleEF	MDV	1.59	1.86
tblVehicleEF	MDV	3.61	5.38
tblVehicleEF	MDV	444.29	467.96
tblVehicleEF	MDV	90.01	116.37
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.16	0.22
tblVehicleEF	MDV	0.43	0.64
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	2.3820e-003	2.2560e-003
tblVehicleEF	MDV	2.3460e-003	2.8190e-003
tblVehicleEF	MDV	0.02	3.7570e-003
tblVehicleEF	MDV	2.1980e-003	2.0820e-003
tblVehicleEF	MDV	2.1600e-003	2.5950e-003
tblVehicleEF	MDV	0.09	0.41
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	0.09	0.00
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.07	0.32

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.51	0.75
tblVehicleEF	MDV	4.3930e-003	4.6240e-003
tblVehicleEF	MDV	8.9100e-004	1.1500e-003
tblVehicleEF	MDV	0.09	0.41
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	0.09	0.00
tblVehicleEF	MDV	0.06	0.81
tblVehicleEF	MDV	0.07	0.32
tblVehicleEF	MDV	0.56	0.82
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.93	3.83
tblVehicleEF	MH	2.41	3.16
tblVehicleEF	MH	1,557.81	1,609.57
tblVehicleEF	MH	20.79	26.41
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.25	1.53
tblVehicleEF	MH	0.25	0.29
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.06	45.61
tblVehicleEF	MH	0.07	14.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.43	0.00
tblVehicleEF	MH	0.08	0.14
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0600e-004	2.6100e-004
tblVehicleEF	MH	1.06	45.61
tblVehicleEF	MH	0.07	14.14
tblVehicleEF	MH	0.43	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.12	0.17
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.97	3.90
tblVehicleEF	MH	2.27	2.99
tblVehicleEF	MH	1,557.88	1,609.69
tblVehicleEF	MH	20.56	26.11
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.15	1.40
tblVehicleEF	MH	0.24	0.28
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.57	53.98
tblVehicleEF	MH	0.07	14.80
tblVehicleEF	MH	0.62	0.00
tblVehicleEF	MH	0.08	0.14
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0300e-004	2.5800e-004
tblVehicleEF	MH	1.57	53.98
tblVehicleEF	MH	0.07	14.80
tblVehicleEF	MH	0.62	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.29
tblVehicleEF	MH	0.12	0.16
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.92	3.81
tblVehicleEF	MH	2.43	3.20
tblVehicleEF	MH	1,557.79	1,609.53
tblVehicleEF	MH	20.83	26.47
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.22	1.50
tblVehicleEF	MH	0.25	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.5100e-004	5.7300e-004

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2290e-003	3.2270e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	3.2400e-004	5.3000e-004
tblVehicleEF	MH	1.21	44.41
tblVehicleEF	MH	0.09	14.01
tblVehicleEF	MH	0.44	0.00
tblVehicleEF	MH	0.08	0.13
tblVehicleEF	MH	0.02	0.30
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0600e-004	2.6200e-004
tblVehicleEF	MH	1.21	44.41
tblVehicleEF	MH	0.09	14.01
tblVehicleEF	MH	0.44	0.00
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.30
tblVehicleEF	MH	0.12	0.17
tblVehicleEF	MHD	4.4570e-003	0.02
tblVehicleEF	MHD	9.4690e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.40	0.64
tblVehicleEF	MHD	0.87	1.00
tblVehicleEF	MHD	1.61	2.02
tblVehicleEF	MHD	70.09	145.78
tblVehicleEF	MHD	1,129.05	1,240.97
tblVehicleEF	MHD	12.73	15.44
tblVehicleEF	MHD	9.7620e-003	0.02
tblVehicleEF	MHD	0.14	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	9.0660e-003	0.01
tblVehicleEF	MHD	0.62	1.24
tblVehicleEF	MHD	2.74	2.21
tblVehicleEF	MHD	1.00	0.91
tblVehicleEF	MHD	2.2440e-003	5.2410e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05
tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	2.1470e-003	5.0140e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	8.0200e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	4.9400e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.6600e-004	1.3530e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2600e-004	1.5300e-004
tblVehicleEF	MHD	8.0200e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.06
tblVehicleEF	MHD	4.9400e-004	0.00
tblVehicleEF	MHD	0.17	0.08
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	4.2180e-003	0.02
tblVehicleEF	MHD	9.5490e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.31	0.54
tblVehicleEF	MHD	0.88	1.01
tblVehicleEF	MHD	1.53	1.92
tblVehicleEF	MHD	71.71	148.28
tblVehicleEF	MHD	1,129.06	1,241.00
tblVehicleEF	MHD	12.59	15.27
tblVehicleEF	MHD	9.9660e-003	0.02
tblVehicleEF	MHD	0.14	0.14
tblVehicleEF	MHD	8.9200e-003	9.8630e-003
tblVehicleEF	MHD	0.63	1.26
tblVehicleEF	MHD	2.58	2.08
tblVehicleEF	MHD	0.99	0.91
tblVehicleEF	MHD	1.8940e-003	4.4250e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05
tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	1.8120e-003	4.2330e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	1.2080e-003	0.06
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	7.1000e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.8200e-004	1.3770e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2500e-004	1.5100e-004
tblVehicleEF	MHD	1.2080e-003	0.06
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.06
tblVehicleEF	MHD	7.1000e-004	0.00
tblVehicleEF	MHD	0.18	0.07
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10
tblVehicleEF	MHD	4.7990e-003	0.02
tblVehicleEF	MHD	9.4450e-003	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.51	0.79
tblVehicleEF	MHD	0.86	0.99
tblVehicleEF	MHD	1.63	2.04
tblVehicleEF	MHD	67.85	142.30
tblVehicleEF	MHD	1,129.04	1,240.96
tblVehicleEF	MHD	12.75	15.48
tblVehicleEF	MHD	9.4860e-003	0.02
tblVehicleEF	MHD	0.14	0.14
tblVehicleEF	MHD	9.1850e-003	0.01
tblVehicleEF	MHD	0.61	1.23
tblVehicleEF	MHD	2.69	2.17
tblVehicleEF	MHD	1.00	0.91
tblVehicleEF	MHD	2.7270e-003	6.3670e-003
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	0.07	0.05

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	1.5400e-004	2.0400e-004
tblVehicleEF	MHD	2.6090e-003	6.0910e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.07	0.04
tblVehicleEF	MHD	1.4100e-004	1.8700e-004
tblVehicleEF	MHD	8.4900e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	4.8700e-004	0.00
tblVehicleEF	MHD	0.15	0.10
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.07	0.09
tblVehicleEF	MHD	6.4500e-004	1.3200e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.2600e-004	1.5300e-004
tblVehicleEF	MHD	8.4900e-004	0.05
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.04	0.06
tblVehicleEF	MHD	4.8700e-004	0.00
tblVehicleEF	MHD	0.17	0.08
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.08	0.10
tblVehicleEF	OBUS	9.0530e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.61	0.55
tblVehicleEF	OBUS	1.25	1.35
tblVehicleEF	OBUS	2.54	2.99
tblVehicleEF	OBUS	98.82	84.33

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1,458.58	1,540.52
tblVehicleEF	OBUS	19.86	23.72
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.71	0.47
tblVehicleEF	OBUS	2.50	1.99
tblVehicleEF	OBUS	0.62	0.59
tblVehicleEF	OBUS	3.3790e-003	1.5850e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	3.2330e-003	1.5160e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	1.8690e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.3400e-004	0.00
tblVehicleEF	OBUS	0.14	0.12
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.12	0.14
tblVehicleEF	OBUS	9.4000e-004	7.7200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9700e-004	2.3500e-004
tblVehicleEF	OBUS	1.8690e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	9.3400e-004	0.00
tblVehicleEF	OBUS	0.18	0.10
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	9.0480e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.57	0.53
tblVehicleEF	OBUS	1.27	1.37
tblVehicleEF	OBUS	2.40	2.82
tblVehicleEF	OBUS	100.02	84.73
tblVehicleEF	OBUS	1,458.61	1,540.55
tblVehicleEF	OBUS	19.62	23.44
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.72	0.47
tblVehicleEF	OBUS	2.35	1.86
tblVehicleEF	OBUS	0.61	0.58
tblVehicleEF	OBUS	2.8530e-003	1.3420e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	2.7300e-003	1.2840e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	2.7290e-003	0.11
tblVehicleEF	OBUS	0.02	0.03



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	1.3230e-003	0.00
tblVehicleEF	OBUS	0.15	0.12
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.12	0.14
tblVehicleEF	OBUS	9.5100e-004	7.7600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9400e-004	2.3200e-004
tblVehicleEF	OBUS	2.7290e-003	0.11
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	1.3230e-003	0.00
tblVehicleEF	OBUS	0.18	0.09
tblVehicleEF	OBUS	0.07	0.10
tblVehicleEF	OBUS	0.13	0.15
tblVehicleEF	OBUS	9.0790e-003	0.02
tblVehicleEF	OBUS	0.01	0.04
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.66	0.57
tblVehicleEF	OBUS	1.24	1.35
tblVehicleEF	OBUS	2.56	3.02
tblVehicleEF	OBUS	97.15	83.79
tblVehicleEF	OBUS	1,458.57	1,540.51
tblVehicleEF	OBUS	19.91	23.78
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.13
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.71	0.48
tblVehicleEF	OBUS	2.46	1.95

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.62	0.60
tblVehicleEF	OBUS	4.1050e-003	1.9210e-003
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.9900e-004	2.1900e-004
tblVehicleEF	OBUS	3.9270e-003	1.8380e-003
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.8300e-004	2.0100e-004
tblVehicleEF	OBUS	1.9790e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.07	0.05
tblVehicleEF	OBUS	9.2100e-004	0.00
tblVehicleEF	OBUS	0.14	0.12
tblVehicleEF	OBUS	0.08	0.10
tblVehicleEF	OBUS	0.12	0.15
tblVehicleEF	OBUS	9.2400e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9700e-004	2.3500e-004
tblVehicleEF	OBUS	1.9790e-003	0.09
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.09	0.08
tblVehicleEF	OBUS	9.2100e-004	0.00
tblVehicleEF	OBUS	0.18	0.10
tblVehicleEF	OBUS	0.08	0.10
tblVehicleEF	OBUS	0.14	0.16
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	7.9520e-003	1.43
tblVehicleEF	SBUS	5.5910e-003	6.9200e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	2.47	2.65
tblVehicleEF	SBUS	0.66	5.91
tblVehicleEF	SBUS	0.78	1.00
tblVehicleEF	SBUS	350.96	257.85
tblVehicleEF	SBUS	1,142.40	1,278.15
tblVehicleEF	SBUS	4.74	5.86
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.2890e-003	6.0480e-003
tblVehicleEF	SBUS	3.43	1.43
tblVehicleEF	SBUS	5.48	3.72
tblVehicleEF	SBUS	0.77	0.14
tblVehicleEF	SBUS	5.0980e-003	2.3700e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	4.8780e-003	2.2560e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	8.4800e-004	0.05
tblVehicleEF	SBUS	7.2490e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	4.3000e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	3.3450e-003	1.4490e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.7000e-005	5.8000e-005
tblVehicleEF	SBUS	8.4800e-004	0.05
tblVehicleEF	SBUS	7.2490e-003	0.01
tblVehicleEF	SBUS	0.40	0.81
tblVehicleEF	SBUS	4.3000e-004	0.00
tblVehicleEF	SBUS	0.13	0.18
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	8.0370e-003	1.44
tblVehicleEF	SBUS	4.9800e-003	6.1750e-003
tblVehicleEF	SBUS	2.43	2.63
tblVehicleEF	SBUS	0.67	5.93
tblVehicleEF	SBUS	0.64	0.81
tblVehicleEF	SBUS	360.21	261.89
tblVehicleEF	SBUS	1,142.41	1,278.17
tblVehicleEF	SBUS	4.49	5.56
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.1630e-003	5.8980e-003
tblVehicleEF	SBUS	3.51	1.47
tblVehicleEF	SBUS	5.17	3.50
tblVehicleEF	SBUS	0.77	0.13
tblVehicleEF	SBUS	4.3050e-003	2.0470e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	4.1180e-003	1.9470e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	1.2330e-003	0.05
tblVehicleEF	SBUS	7.3700e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	6.0300e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.4320e-003	1.4880e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.5000e-005	5.5000e-005
tblVehicleEF	SBUS	1.2330e-003	0.05
tblVehicleEF	SBUS	7.3700e-003	0.01
tblVehicleEF	SBUS	0.40	0.81
tblVehicleEF	SBUS	6.0300e-004	0.00
tblVehicleEF	SBUS	0.13	0.16
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	0.06	0.47
tblVehicleEF	SBUS	7.9270e-003	1.43
tblVehicleEF	SBUS	5.7270e-003	7.0910e-003
tblVehicleEF	SBUS	2.53	2.67
tblVehicleEF	SBUS	0.66	5.91
tblVehicleEF	SBUS	0.81	1.03

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	338.18	252.27
tblVehicleEF	SBUS	1,142.39	1,278.14
tblVehicleEF	SBUS	4.78	5.92
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.15	0.18
tblVehicleEF	SBUS	5.3830e-003	6.1580e-003
tblVehicleEF	SBUS	3.32	1.37
tblVehicleEF	SBUS	5.39	3.66
tblVehicleEF	SBUS	0.77	0.14
tblVehicleEF	SBUS	6.1940e-003	2.8150e-003
tblVehicleEF	SBUS	0.74	0.05
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.1000e-005	5.5000e-005
tblVehicleEF	SBUS	5.9260e-003	2.6820e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7070e-003	2.6030e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	3.8000e-005	5.1000e-005
tblVehicleEF	SBUS	8.8200e-004	0.05
tblVehicleEF	SBUS	7.8210e-003	0.01
tblVehicleEF	SBUS	0.28	0.28
tblVehicleEF	SBUS	4.1600e-004	0.00
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	3.2240e-003	1.3960e-003
tblVehicleEF	SBUS	0.01	7.4820e-003
tblVehicleEF	SBUS	4.7000e-005	5.9000e-005

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	8.8200e-004	0.05
tblVehicleEF	SBUS	7.8210e-003	0.01
tblVehicleEF	SBUS	0.41	0.81
tblVehicleEF	SBUS	4.1600e-004	0.00
tblVehicleEF	SBUS	0.13	0.18
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.04	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.71	0.85
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.66	9.57
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.1050e-003	8.2200e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003
tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	5.6300e-004	0.02
tblVehicleEF	UBUS	7.6040e-003	6.4870e-003
tblVehicleEF	UBUS	4.4800e-004	0.00
tblVehicleEF	UBUS	0.15	0.14

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	1.8230e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.6000e-005	9.5000e-005
tblVehicleEF	UBUS	5.6300e-004	0.02
tblVehicleEF	UBUS	7.6040e-003	6.4870e-003
tblVehicleEF	UBUS	4.4800e-004	0.00
tblVehicleEF	UBUS	6.37	0.04
tblVehicleEF	UBUS	1.8230e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.62	0.75
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.52	9.40
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.0310e-003	8.1240e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003
tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	8.2300e-004	0.02



## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	7.8580e-003	6.7650e-003
tblVehicleEF	UBUS	6.2300e-004	0.00
tblVehicleEF	UBUS	0.15	0.14
tblVehicleEF	UBUS	1.6570e-003	0.01
tblVehicleEF	UBUS	0.04	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.4000e-005	9.3000e-005
tblVehicleEF	UBUS	8.2300e-004	0.02
tblVehicleEF	UBUS	7.8580e-003	6.7650e-003
tblVehicleEF	UBUS	6.2300e-004	0.00
tblVehicleEF	UBUS	6.37	0.03
tblVehicleEF	UBUS	1.6570e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	6.17	2.68
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	42.44	32.38
tblVehicleEF	UBUS	0.72	0.87
tblVehicleEF	UBUS	1,982.38	2,499.39
tblVehicleEF	UBUS	8.69	9.61
tblVehicleEF	UBUS	0.38	0.48
tblVehicleEF	UBUS	7.2190e-003	8.3450e-003
tblVehicleEF	UBUS	1.20	1.36
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.7130e-003	1.0110e-003
tblVehicleEF	UBUS	3.6000e-005	4.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.9830e-003	7.9880e-003

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	3.5500e-003	9.6500e-004
tblVehicleEF	UBUS	3.3000e-005	3.8000e-005
tblVehicleEF	UBUS	5.5100e-004	0.02
tblVehicleEF	UBUS	8.1190e-003	6.4360e-003
tblVehicleEF	UBUS	4.2600e-004	0.00
tblVehicleEF	UBUS	0.15	0.14
tblVehicleEF	UBUS	2.2150e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	1.5960e-003	1.3300e-003
tblVehicleEF	UBUS	8.6000e-005	9.5000e-005
tblVehicleEF	UBUS	5.5100e-004	0.02
tblVehicleEF	UBUS	8.1190e-003	6.4360e-003
tblVehicleEF	UBUS	4.2600e-004	0.00
tblVehicleEF	UBUS	6.37	0.04
tblVehicleEF	UBUS	2.2150e-003	0.01
tblVehicleEF	UBUS	0.05	0.05
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.60
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	26.33
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	14.90
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	31.75
tblWater	IndoorWaterUseRate	574,915,354.63	575,093,088.38
tblWater	OutdoorWaterUseRate	352,367,475.42	352,476,409.01

**2.0 Emissions Summary**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction

### Mitigated Construction

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,390.255 6	263.8420	7,193.865 5	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7 924	220,558.3 652	334,385.1 576	341.2598	7.7258	345,218.9 264
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3 648	371,246.3 648	7.1156	6.8062	373,452.4 963
Mobile	1,620.331 2	1,928.306 4	15,661.37 69	29.6138	2,547.196 7	27.9654	2,575.162 1	636.0652	26.1452	662.2105		3,025,912. 6479	3,025,912. 6479	178.7883	139.1579	3,071,851. 4080
<b>Total</b>	<b>7,044.617 7</b>	<b>2,495.513 3</b>	<b>23,071.06 30</b>	<b>47.2891</b>	<b>2,547.196 7</b>	<b>985.3085</b>	<b>3,532.505 2</b>	<b>636.0652</b>	<b>983.4883</b>	<b>1,619.5536</b>	<b>113,826.7 924</b>	<b>3,617,717. 3779</b>	<b>3,731,544. 1703</b>	<b>527.1636</b>	<b>153.6898</b>	<b>3,790,522. 8307</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,390.255 6	263.8420	7,193.865 5	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7 924	220,558.3 652	334,385.1 576	341.2598	7.7258	345,218.9 264
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3 648	371,246.3 648	7.1156	6.8062	373,452.4 963
Mobile	1,620.331 2	1,928.306 4	15,661.37 69	29.6138	2,547.196 7	27.9654	2,575.162 1	636.0652	26.1452	662.2105		3,025,912. 6479	3,025,912. 6479	178.7883	139.1579	3,071,851. 4080
<b>Total</b>	<b>7,044.617 7</b>	<b>2,495.513 3</b>	<b>23,071.06 30</b>	<b>47.2891</b>	<b>2,547.196 7</b>	<b>985.3085</b>	<b>3,532.505 2</b>	<b>636.0652</b>	<b>983.4883</b>	<b>1,619.5536</b>	<b>113,826.7 924</b>	<b>3,617,717. 3779</b>	<b>3,731,544. 1703</b>	<b>527.1636</b>	<b>153.6898</b>	<b>3,790,522. 8307</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	12/31/2018	5	0	
2	Architectural Coating	Architectural Coating	1/13/2019	1/11/2019	5	0	
3	Grading	Grading	4/30/2019	4/29/2019	5	0	
4	Site Preparation	Site Preparation	5/1/2019	4/30/2019	5	0	
5	Building Construction	Building Construction	9/29/2019	9/27/2019	5	0	
6	Paving	Paving	11/14/2019	11/13/2019	5	0	

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 40,449,780; Residential Outdoor: 13,483,260; Non-Residential Indoor: 117,126,750; Non-Residential Outdoor: 39,042,250; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8,191.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40,953.00	15,583.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]



Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 3.3 Architectural Coating - 2019

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]

Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 3.4 Grading - 2019

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

### Mitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site



Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 3.7 Paving - 2019

### **Mitigated Construction On-Site**

[illegible]

### Mitigated Construction Off-Site

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1,620.3312	1,928.3064	15,661.3769	29.6138	2,547.1967	27.9654	2,575.1621	636.0652	26.1452	662.2105		3,025,912.6479	3,025,912.6479	178.7883	139.1579	3,071,851.4080
Unmitigated	1,620.3312	1,928.3064	15,661.3769	29.6138	2,547.1967	27.9654	2,575.1621	636.0652	26.1452	662.2105		3,025,912.6479	3,025,912.6479	178.7883	139.1579	3,071,851.4080

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586
Total	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586

## 4.3 Trip Type Information

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.60	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
City Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Elementary School	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Golf Course	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Government Office Building	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Hotel	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Industrial Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Office Park	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Regional Shopping Center	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455
Single Family Housing	0.551001	0.059862	0.185577	0.128146	0.022541	0.005543	0.010825	0.007967	0.000967	0.000632	0.022803	0.000681	0.003455

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963
NaturalGas Unmitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35968.1	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10984.4	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1.94402e+006	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87115.3	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19461.4	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134.905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36.847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35.9681	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10.9844	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1944.02	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87.1153	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19.4614	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886.298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5,390.2556	263.8420	7,193.8655	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7924	220,558.3652	334,385.1576	341.2598	7.7258	345,218.9264
Unmitigated	5,390.2556	263.8420	7,193.8655	15.8191		933.8308	933.8308		933.8308	933.8308	113,826.7924	220,558.3652	334,385.1576	341.2598	7.7258	345,218.9264

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.0491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.2615	252.1336	6,179.9220	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7924	218,736.0000	332,562.7924	339.4535	7.7258	343,351.4046
Landscaping	31.3880	11.7084	1,013.9435	0.0535		5.5599	5.5599		5.5599	5.5599		1,822.3652	1,822.3652	1.8063		1,867.5218
<b>Total</b>	<b>5,390.2556</b>	<b>263.8420</b>	<b>7,193.8655</b>	<b>15.8191</b>		<b>933.8308</b>	<b>933.8308</b>		<b>933.8308</b>	<b>933.8308</b>	<b>113,826.7924</b>	<b>220,558.3652</b>	<b>334,385.1576</b>	<b>341.2597</b>	<b>7.7258</b>	<b>345,218.9264</b>

## Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.0491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.2615	252.1336	6,179.9220	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7924	218,736.0000	332,562.7924	339.4535	7.7258	343,351.4046
Landscaping	31.3880	11.7084	1,013.9435	0.0535		5.5599	5.5599		5.5599	5.5599		1,822.3652	1,822.3652	1.8063		1,867.5218
<b>Total</b>	<b>5,390.2556</b>	<b>263.8420</b>	<b>7,193.8655</b>	<b>15.8191</b>		<b>933.8308</b>	<b>933.8308</b>		<b>933.8308</b>	<b>933.8308</b>	<b>113,826.7924</b>	<b>220,558.3652</b>	<b>334,385.1576</b>	<b>341.2597</b>	<b>7.7258</b>	<b>345,218.9264</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**



Santa Fe Springs GPU (Existing Land Uses; 2020) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Existing Land Uses; 2040)****Los Angeles-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,255.10	1000sqft	185.10	1,255,100.00	0
Office Park	3,234.70	1000sqft	120.50	3,234,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,836.10	1000sqft	3,333.90	67,836,100.00	0
City Park	111.50	Acre	111.50	4,856,940.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	270.00	Room	4.40	166,500.00	0
Apartments Low Rise	2,373.00	Dwelling Unit	303.70	2,373,000.00	8488
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	38430
Regional Shopping Center	4,305.10	1000sqft	258.10	4,305,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9	<b>Operational Year</b>	2040		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	150.55	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE CO2 intensity factor updated to reflect estimated SCE RPS in 2040.

Land Use - Souce: EIR PD; Table 3-1. Gov't office building and ele school comprise public / institutional land use. Open / vacant / ROW space not modeled.

Construction Phase - Future run for existing land uses - no construction emissions modeled.

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Energy Use - T24 standards adjusted upward to reflect decreased efficiency between 2013/2016 and 2016/2019 standards. See CalEEMod Appendix E5; Tables 1, 3, and 4.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	54.80	303.39
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	2.28	2.68
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.88
tblEnergyUse	T24E	3.58	4.20
tblEnergyUse	T24E	93.13	502.24
tblEnergyUse	T24NG	9,487.85	14,366.19
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	19.72	20.02
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.64
tblEnergyUse	T24NG	1.14	1.16

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24NG	19,108.08	26,696.96
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	392,040.00	166,500.00
tblLandUse	LotAcreage	28.81	185.10
tblLandUse	LotAcreage	74.26	120.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,557.30	3,333.90
tblLandUse	LotAcreage	9.00	4.40
tblLandUse	LotAcreage	148.31	303.70
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	98.83	258.10
tblLandUse	Population	6,787.00	8,488.00
tblLandUse	Population	27,968.00	38,430.00
tblProjectCharacteristics	CO2IntensityFactor	390.98	150.55
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.3691e-008
tblVehicleEF	HHD	7.07	4.65
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.8520e-003	8.3235e-004
tblVehicleEF	HHD	921.34	605.94
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0584e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.5851e-007
tblVehicleEF	HHD	5.71	3.51
tblVehicleEF	HHD	2.38	1.05

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.1440e-003	1.4255e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	2.0520e-003	1.3585e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	2.0000e-006	1.6368e-005
tblVehicleEF	HHD	9.6000e-005	2.6412e-006
tblVehicleEF	HHD	0.47	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	3.6000e-005	3.0787e-005
tblVehicleEF	HHD	2.0000e-006	1.2095e-007
tblVehicleEF	HHD	8.5060e-003	5.3340e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9665e-008
tblVehicleEF	HHD	2.0000e-006	1.6368e-005
tblVehicleEF	HHD	9.6000e-005	2.6412e-006
tblVehicleEF	HHD	0.54	0.43
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	9.2430e-008
tblVehicleEF	HHD	3.6000e-005	3.0787e-005
tblVehicleEF	HHD	3.0000e-006	1.3243e-007
tblVehicleEF	HHD	0.03	0.11

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.2696e-008
tblVehicleEF	HHD	6.98	4.60
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.4030e-003	7.9059e-004
tblVehicleEF	HHD	909.55	598.69
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	7.9921e-003
tblVehicleEF	HHD	0.14	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.5419e-007
tblVehicleEF	HHD	5.43	3.34
tblVehicleEF	HHD	2.25	0.99
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	1.9010e-003	1.2807e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	1.8180e-003	1.2199e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	4.0000e-006	1.7378e-005
tblVehicleEF	HHD	9.8000e-005	2.7225e-006
tblVehicleEF	HHD	0.50	0.31
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1089e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	3.5000e-005	3.0829e-005
tblVehicleEF	HHD	2.0000e-006	1.1620e-007
tblVehicleEF	HHD	8.3970e-003	5.2654e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9010e-008
tblVehicleEF	HHD	4.0000e-006	1.7378e-005
tblVehicleEF	HHD	9.8000e-005	2.7225e-006
tblVehicleEF	HHD	0.57	0.45
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.11	8.8800e-008
tblVehicleEF	HHD	3.5000e-005	3.0829e-005
tblVehicleEF	HHD	3.0000e-006	1.2723e-007
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.3924e-008
tblVehicleEF	HHD	7.20	4.73
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.9350e-003	8.4064e-004
tblVehicleEF	HHD	937.61	615.95
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0715e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.6965e-007
tblVehicleEF	HHD	6.10	3.74
tblVehicleEF	HHD	2.34	1.03
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.4810e-003	1.6255e-003
tblVehicleEF	HHD	0.06	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	2.3740e-003	1.5499e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	2.0000e-006	1.6476e-005
tblVehicleEF	HHD	1.0000e-004	2.6303e-006
tblVehicleEF	HHD	0.43	0.27
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1078e-003
tblVehicleEF	HHD	4.0000e-005	3.1092e-005
tblVehicleEF	HHD	2.0000e-006	1.2205e-007
tblVehicleEF	HHD	8.6570e-003	5.4288e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9795e-008
tblVehicleEF	HHD	2.0000e-006	1.6476e-005
tblVehicleEF	HHD	1.0000e-004	2.6303e-006
tblVehicleEF	HHD	0.50	0.40
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	9.3266e-008
tblVehicleEF	HHD	4.0000e-005	3.1092e-005
tblVehicleEF	HHD	3.0000e-006	1.3363e-007
tblVehicleEF	LDA	7.7700e-004	1.0544e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.40	0.45
tblVehicleEF	LDA	1.31	1.44



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	193.73	213.20
tblVehicleEF	LDA	36.79	50.59
tblVehicleEF	LDA	3.0690e-003	2.7950e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.3020e-003	3.2139e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.9160e-003	2.1077e-003
tblVehicleEF	LDA	3.6400e-004	5.0011e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3330e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDA	8.3600e-004	1.0920e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.45	0.53
tblVehicleEF	LDA	1.12	1.24
tblVehicleEF	LDA	202.55	222.82
tblVehicleEF	LDA	36.47	50.22
tblVehicleEF	LDA	2.8150e-003	2.4743e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.10	0.13
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	2.4490e-003	3.2936e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	2.0040e-003	2.2028e-003
tblVehicleEF	LDA	3.6100e-004	4.9646e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.5480e-003	0.12

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	7.5900e-004	1.0447e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.39	0.42
tblVehicleEF	LDA	1.35	1.49
tblVehicleEF	LDA	190.51	209.66
tblVehicleEF	LDA	36.86	50.67
tblVehicleEF	LDA	2.9890e-003	2.7418e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.14
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.2540e-003	3.1913e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.8840e-003	2.0726e-003
tblVehicleEF	LDA	3.6500e-004	5.0094e-004
tblVehicleEF	LDA	0.02	0.20

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.2640e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDT1	1.0250e-003	1.7807e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.45	0.62
tblVehicleEF	LDT1	1.41	1.85
tblVehicleEF	LDT1	233.12	279.27
tblVehicleEF	LDT1	44.79	65.96
tblVehicleEF	LDT1	3.1660e-003	3.8841e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.2080e-003	6.1648e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.17

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	2.3070e-003	2.7608e-003
tblVehicleEF	LDT1	4.4300e-004	6.5203e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.6800e-003	0.18
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.09	0.18
tblVehicleEF	LDT1	1.0990e-003	1.8422e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.49	0.73
tblVehicleEF	LDT1	1.21	1.59
tblVehicleEF	LDT1	241.99	290.25
tblVehicleEF	LDT1	44.44	65.47
tblVehicleEF	LDT1	2.8730e-003	3.4385e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.11	0.18
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	3.4100e-003	6.3178e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.3950e-003	2.8694e-003
tblVehicleEF	LDT1	4.4000e-004	6.4727e-004
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	4.9750e-003	0.16
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	1.0020e-003	1.7647e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.43	0.58
tblVehicleEF	LDT1	1.46	1.91
tblVehicleEF	LDT1	229.86	275.22
tblVehicleEF	LDT1	44.86	66.07
tblVehicleEF	LDT1	3.0770e-003	3.8111e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.1420e-003	6.1213e-003
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.2750e-003	2.7208e-003
tblVehicleEF	LDT1	4.4400e-004	6.5312e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.5840e-003	0.19
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT2	1.2370e-003	1.6378e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.50	0.60
tblVehicleEF	LDT2	1.76	1.96
tblVehicleEF	LDT2	231.46	291.91
tblVehicleEF	LDT2	44.41	68.52
tblVehicleEF	LDT2	3.3840e-003	3.7140e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.19
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.1090e-003	5.3196e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2890e-003	2.8854e-003
tblVehicleEF	LDT2	4.3900e-004	6.7742e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.9260e-003	0.18
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	1.3260e-003	1.6953e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.55	0.71
tblVehicleEF	LDT2	1.50	1.68
tblVehicleEF	LDT2	239.44	302.38
tblVehicleEF	LDT2	43.97	68.01
tblVehicleEF	LDT2	3.1020e-003	3.3034e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	4.3550e-003	5.4502e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.15
tblVehicleEF	LDT2	2.3680e-003	2.9889e-003
tblVehicleEF	LDT2	4.3500e-004	6.7238e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2850e-003	0.16
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	1.2100e-003	1.6229e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.49	0.57
tblVehicleEF	LDT2	1.81	2.03
tblVehicleEF	LDT2	228.53	288.06
tblVehicleEF	LDT2	44.51	68.64
tblVehicleEF	LDT2	3.2980e-003	3.6458e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.0290e-003	5.2826e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2600e-003	2.8473e-003
tblVehicleEF	LDT2	4.4000e-004	6.7858e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.8090e-003	0.19
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.19
tblVehicleEF	LHD1	3.2430e-003	2.6463e-003
tblVehicleEF	LHD1	1.6140e-003	7.9635e-004
tblVehicleEF	LHD1	5.2840e-003	9.0101e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.69	1.37

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.07	10.37
tblVehicleEF	LHD1	7.4400e-004	4.4979e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4319e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	8.0000e-005	1.0250e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4319e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	3.2500e-003	2.6552e-003
tblVehicleEF	LHD1	1.6270e-003	1.2747e-003
tblVehicleEF	LHD1	5.1050e-003	8.7186e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.22
tblVehicleEF	LHD1	0.66	1.32
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.98
tblVehicleEF	LHD1	8.02	10.27
tblVehicleEF	LHD1	7.4600e-004	4.5093e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7247e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	7.9000e-005	1.0155e-004
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7247e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	3.2420e-003	2.6444e-003
tblVehicleEF	LHD1	1.6110e-003	1.2650e-003
tblVehicleEF	LHD1	5.3210e-003	9.0744e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.70	1.38
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.08	10.39

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	7.4400e-004	4.4965e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3911e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	8.0000e-005	1.0268e-004
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3911e-003
tblVehicleEF	LHD1	0.02	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD2	2.1740e-003	1.4472e-003
tblVehicleEF	LHD2	1.8050e-003	1.3182e-003
tblVehicleEF	LHD2	3.1420e-003	4.4152e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1388e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1140e-003	8.4488e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6226e-003
tblVehicleEF	LHD2	0.01	8.3367e-003
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.4423e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6226e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1790e-003	1.4516e-003
tblVehicleEF	LHD2	1.8120e-003	1.3205e-003
tblVehicleEF	LHD2	3.0360e-003	4.2726e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.41	0.72
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.39
tblVehicleEF	LHD2	5.72	5.45
tblVehicleEF	LHD2	1.5380e-003	1.1394e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	8.8900e-003	8.2277e-003



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7873e-003
tblVehicleEF	LHD2	0.01	8.3367e-003
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.3913e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7873e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1740e-003	1.4462e-003
tblVehicleEF	LHD2	1.8030e-003	1.3176e-003
tblVehicleEF	LHD2	3.1640e-003	4.4467e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.64	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1388e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1920e-003	8.5173e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6012e-003
tblVehicleEF	LHD2	0.01	8.3367e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.4521e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6012e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.22	0.13
tblVehicleEF	MCY	17.74	10.66
tblVehicleEF	MCY	8.79	7.19
tblVehicleEF	MCY	224.86	192.79
tblVehicleEF	MCY	56.76	36.74
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.01	4.6951e-003
tblVehicleEF	MCY	1.13	0.47
tblVehicleEF	MCY	0.26	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003
tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.56	0.91
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.74	0.90
tblVehicleEF	MCY	2.2250e-003	1.9060e-003
tblVehicleEF	MCY	5.6200e-004	3.6326e-004
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.22	0.98
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.89	0.98
tblVehicleEF	MCY	0.37	0.15
tblVehicleEF	MCY	0.20	0.12
tblVehicleEF	MCY	17.16	10.82
tblVehicleEF	MCY	7.93	6.41
tblVehicleEF	MCY	223.77	193.09
tblVehicleEF	MCY	54.79	35.24
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.01	4.6358e-003
tblVehicleEF	MCY	0.99	0.42
tblVehicleEF	MCY	0.25	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	2.52	0.93
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.55	0.82
tblVehicleEF	MCY	2.2140e-003	1.9089e-003
tblVehicleEF	MCY	5.4200e-004	3.4841e-004
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	3.16	0.89
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.69	0.89
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.23	0.13
tblVehicleEF	MCY	17.83	10.62
tblVehicleEF	MCY	8.95	7.36
tblVehicleEF	MCY	225.03	192.71
tblVehicleEF	MCY	57.13	37.06
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.02	4.7787e-003
tblVehicleEF	MCY	1.10	0.46
tblVehicleEF	MCY	0.27	0.07
tblVehicleEF	MCY	0.01	0.01

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003
tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	2.57	0.91
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.77	0.92
tblVehicleEF	MCY	2.2270e-003	1.9052e-003
tblVehicleEF	MCY	5.6500e-004	3.6638e-004
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	3.23	1.00
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.93	1.00
tblVehicleEF	MDV	1.3150e-003	1.7674e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.51	0.62
tblVehicleEF	MDV	1.76	1.97
tblVehicleEF	MDV	281.64	348.15
tblVehicleEF	MDV	52.74	81.40
tblVehicleEF	MDV	4.6520e-003	4.3401e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	4.4900e-003	5.9525e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.18
tblVehicleEF	MDV	2.7830e-003	3.4403e-003
tblVehicleEF	MDV	5.2200e-004	8.0471e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.4680e-003	0.20
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.11	0.19
tblVehicleEF	MDV	1.4100e-003	1.8296e-003
tblVehicleEF	MDV	0.02	0.04
tblVehicleEF	MDV	0.56	0.73
tblVehicleEF	MDV	1.50	1.68
tblVehicleEF	MDV	289.51	358.45
tblVehicleEF	MDV	52.30	80.88

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	4.3600e-003	3.9068e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	4.7590e-003	6.0985e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.16
tblVehicleEF	MDV	2.8610e-003	3.5421e-003
tblVehicleEF	MDV	5.1800e-004	7.9962e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	6.8600e-003	0.18
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2860e-003	1.7512e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.49	0.58



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	1.81	2.03
tblVehicleEF	MDV	278.75	344.36
tblVehicleEF	MDV	52.84	81.52
tblVehicleEF	MDV	4.5620e-003	4.2681e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	4.4030e-003	5.9110e-003
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	2.7540e-003	3.4028e-003
tblVehicleEF	MDV	5.2300e-004	8.0589e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	6.3410e-003	0.20
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.12	0.20

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	3.1420e-003	2.7955e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.44	1.58
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.93	18.96
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.79
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8742e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1910e-003	2.8372e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	1.36	1.50
tblVehicleEF	MH	1,200.60	1,515.03
tblVehicleEF	MH	13.79	18.81
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.74
tblVehicleEF	MH	0.21	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3600e-004	1.8597e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1280e-003	2.7836e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.45	1.60
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.95	18.99
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.72	0.77
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1020e-003	0.07

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8772e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MHD	3.8760e-003	0.02
tblVehicleEF	MHD	6.9300e-004	6.2949e-003
tblVehicleEF	MHD	8.2770e-003	4.9520e-003
tblVehicleEF	MHD	0.38	0.43
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.45
tblVehicleEF	MHD	51.29	87.39
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.00	5.00
tblVehicleEF	MHD	7.2440e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.2400e-003	3.6900e-003
tblVehicleEF	MHD	0.26	0.43
tblVehicleEF	MHD	1.06	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	7.2000e-005	1.5134e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	6.9000e-005	1.4403e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3602e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	7.8910e-003	4.0266e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8700e-004	7.8460e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9412e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3602e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	9.4490e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	3.6860e-003	0.02
tblVehicleEF	MHD	7.0400e-004	6.3019e-003
tblVehicleEF	MHD	7.9900e-003	4.7822e-003
tblVehicleEF	MHD	0.32	0.40
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.72	0.43
tblVehicleEF	MHD	50.88	86.40

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	829.72	640.27
tblVehicleEF	MHD	7.94	4.96
tblVehicleEF	MHD	7.1500e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.0650e-003	3.6082e-003
tblVehicleEF	MHD	0.25	0.41
tblVehicleEF	MHD	1.00	0.16
tblVehicleEF	MHD	1.67	0.68
tblVehicleEF	MHD	6.3000e-005	1.3554e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005
tblVehicleEF	MHD	6.1000e-005	1.2891e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4295e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	7.9230e-003	4.0494e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8300e-004	7.7526e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9023e-005
tblVehicleEF	MHD	4.9400e-004	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.01	2.4295e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	9.4960e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.1520e-003	0.02
tblVehicleEF	MHD	6.8900e-004	6.2924e-003
tblVehicleEF	MHD	8.3190e-003	4.9803e-003
tblVehicleEF	MHD	0.46	0.48
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.46
tblVehicleEF	MHD	51.85	88.76
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.01	5.01
tblVehicleEF	MHD	7.3770e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.3310e-003	3.7301e-003
tblVehicleEF	MHD	0.28	0.46
tblVehicleEF	MHD	1.04	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	8.3000e-005	1.7318e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005
tblVehicleEF	MHD	8.0000e-005	1.6492e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3513e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	7.8820e-003	4.0201e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.9200e-004	7.9747e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9490e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3513e-003
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	9.4360e-003	0.02
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	OBUS	7.8260e-003	0.02
tblVehicleEF	OBUS	1.5290e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.68	0.69
tblVehicleEF	OBUS	0.19	0.38
tblVehicleEF	OBUS	1.59	1.52
tblVehicleEF	OBUS	88.67	93.17
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.03	13.19
tblVehicleEF	OBUS	0.01	0.01

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.43	0.24
tblVehicleEF	OBUS	1.14	0.65
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.4500e-004	2.5381e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.3800e-004	2.4192e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.4200e-004	8.3242e-004
tblVehicleEF	OBUS	0.01	9.8862e-003
tblVehicleEF	OBUS	1.3900e-004	1.3038e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.4400e-004	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	7.9300e-003	0.02
tblVehicleEF	OBUS	1.5580e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.67	0.68
tblVehicleEF	OBUS	0.19	0.39
tblVehicleEF	OBUS	1.51	1.44
tblVehicleEF	OBUS	87.61	92.17
tblVehicleEF	OBUS	1,066.30	1,094.48
tblVehicleEF	OBUS	13.88	13.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.41	0.23
tblVehicleEF	OBUS	1.07	0.61
tblVehicleEF	OBUS	0.97	0.53
tblVehicleEF	OBUS	1.2900e-004	2.2463e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.2300e-004	2.1400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	2.0320e-003	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.3200e-004	8.2297e-004
tblVehicleEF	OBUS	0.01	9.8862e-003
tblVehicleEF	OBUS	1.3700e-004	1.2898e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	7.7040e-003	0.02
tblVehicleEF	OBUS	1.5210e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.70
tblVehicleEF	OBUS	0.18	0.38
tblVehicleEF	OBUS	1.61	1.54
tblVehicleEF	OBUS	90.13	94.55
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.06	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.26

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1.12	0.63
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.6700e-004	2.9411e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.6000e-004	2.8047e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.5600e-004	8.4547e-004
tblVehicleEF	OBUS	0.01	9.8861e-003
tblVehicleEF	OBUS	1.3900e-004	1.3067e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6680e-003	1.02
tblVehicleEF	SBUS	9.4040e-003	6.1465e-003
tblVehicleEF	SBUS	4.65	3.01
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.19	0.71
tblVehicleEF	SBUS	307.82	222.75
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.46	4.86
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.5500e-003	6.7460e-003
tblVehicleEF	SBUS	1.21	0.32
tblVehicleEF	SBUS	1.21	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.2200e-004	5.9031e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	3.0800e-004	5.4446e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.1330e-003	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9550e-003	7.8221e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.4000e-005	4.8009e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.1330e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6950e-003	1.02
tblVehicleEF	SBUS	8.3730e-003	5.4878e-003
tblVehicleEF	SBUS	4.64	3.01
tblVehicleEF	SBUS	0.18	3.32
tblVehicleEF	SBUS	0.97	0.58
tblVehicleEF	SBUS	305.56	222.60
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.09	4.64
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.3010e-003	6.5812e-003
tblVehicleEF	SBUS	1.16	0.32
tblVehicleEF	SBUS	1.14	0.26
tblVehicleEF	SBUS	1.76	0.17
tblVehicleEF	SBUS	2.8400e-004	5.8436e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	2.7100e-004	5.3876e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9330e-003	7.8084e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.0000e-005	4.5841e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.13
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6600e-003	1.02
tblVehicleEF	SBUS	9.6290e-003	6.2974e-003



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	4.67	3.02
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.23	0.73
tblVehicleEF	SBUS	310.93	222.95
tblVehicleEF	SBUS	851.47	827.15
tblVehicleEF	SBUS	7.53	4.90
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.7130e-003	6.8686e-003
tblVehicleEF	SBUS	1.28	0.33
tblVehicleEF	SBUS	1.19	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.7500e-004	5.9853e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	3.5800e-004	5.5232e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	2.9840e-003	7.8411e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.5000e-005	4.8425e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.8560e-003	9.3622e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.70	0.18
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.86	1.13
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3720e-003	1.4825e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.3717e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004
tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003
tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	2.7200e-004	2.9293e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	2.8180e-003	8.1040e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	0.09	9.4152e-003
tblVehicleEF	UBUS	5.6600e-004	3.0134e-003
tblVehicleEF	UBUS	0.04	3.2411e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.8000e-005	1.1170e-005
tblVehicleEF	UBUS	2.7200e-004	2.9293e-003
tblVehicleEF	UBUS	2.8180e-003	8.1040e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	6.01	1.9928e-003
tblVehicleEF	UBUS	5.6600e-004	3.0134e-003
tblVehicleEF	UBUS	0.04	3.5486e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.2230e-003	8.7928e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.62	0.16
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.71	1.10
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3030e-003	1.4532e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.06	8.9552e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004
tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	4.0600e-004	3.3431e-003
tblVehicleEF	UBUS	2.9850e-003	8.4253e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.09	9.4158e-003
tblVehicleEF	UBUS	5.1800e-004	3.0043e-003
tblVehicleEF	UBUS	0.03	3.0231e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.6000e-005	1.0873e-005
tblVehicleEF	UBUS	4.0600e-004	3.3431e-003
tblVehicleEF	UBUS	2.9850e-003	8.4253e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	6.01	1.8587e-003
tblVehicleEF	UBUS	5.1800e-004	3.0043e-003
tblVehicleEF	UBUS	0.04	3.3099e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.9960e-003	9.4983e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.72	0.19
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.89	1.14
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.4730e-003	1.5004e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.4663e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003
tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	2.8600e-004	2.9087e-003
tblVehicleEF	UBUS	3.1520e-003	8.0486e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	0.09	9.4151e-003
tblVehicleEF	UBUS	6.7900e-004	3.1346e-003
tblVehicleEF	UBUS	0.04	3.2934e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.8000e-005	1.1233e-005
tblVehicleEF	UBUS	2.8600e-004	2.9087e-003
tblVehicleEF	UBUS	3.1520e-003	8.0486e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	6.01	2.0249e-003
tblVehicleEF	UBUS	6.7900e-004	3.1346e-003
tblVehicleEF	UBUS	0.04	3.6058e-003
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.60
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	26.33
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	14.90
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	31.75

**2.0 Emissions Summary**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Highest

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	440.4916	4.6008	203.0121	0.2038		12.3019	12.3019		12.3019	12.3019	1,290.774 1	2,687.077 2	3,977.851 3	4.0492	0.0876	4,105.188 6
Energy	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	137,829.3 073	137,829.3 073	17.9171	3.1558	139,217.6 645
Mobile	136.0911	89.8937	1,242.310 7	3.5301	407.5003	1.4213	408.9216	101.7161	1.3255	103.0416	0.0000	326,228.6 124	326,228.6 124	12.1736	11.4273	329,938.2 967
Waste						0.0000	0.0000		0.0000	0.0000	22,649.90 62	0.0000	22,649.90 62	1,338.571 1	0.0000	56,114.18 39
Water						0.0000	0.0000		0.0000	0.0000	5,604.657 8	16,880.19 09	22,484.84 87	579.3522	14.0409	41,152.83 74
<b>Total</b>	<b>582.7934</b>	<b>149.8586</b>	<b>1,484.710 0</b>	<b>4.0726</b>	<b>407.5003</b>	<b>18.0142</b>	<b>425.5145</b>	<b>101.7161</b>	<b>17.9184</b>	<b>119.6345</b>	<b>29,545.33 81</b>	<b>483,625.1 877</b>	<b>513,170.5 258</b>	<b>1,952.063 1</b>	<b>28.7116</b>	<b>570,528.1 712</b>



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	440.4916	4.6008	203.0121	0.2038		12.3019	12.3019		12.3019	12.3019	1,290.774 1	2,687.077 2	3,977.851 3	4.0492	0.0876	4,105.188 6
Energy	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	137,829.3 073	137,829.3 073	17.9171	3.1558	139,217.6 645
Mobile	136.0911	89.8937	1,242.310 7	3.5301	407.5003	1.4213	408.9216	101.7161	1.3255	103.0416	0.0000	326,228.6 124	326,228.6 124	12.1736	11.4273	329,938.2 967
Waste						0.0000	0.0000		0.0000	0.0000	22,649.90 62	0.0000	22,649.90 62	1,338.571 1	0.0000	56,114.18 39
Water						0.0000	0.0000		0.0000	0.0000	5,604.657 8	16,880.19 09	22,484.84 87	579.3522	14.0409	41,152.83 74
<b>Total</b>	<b>582.7934</b>	<b>149.8586</b>	<b>1,484.710 0</b>	<b>4.0726</b>	<b>407.5003</b>	<b>18.0142</b>	<b>425.5145</b>	<b>101.7161</b>	<b>17.9184</b>	<b>119.6345</b>	<b>29,545.33 81</b>	<b>483,625.1 877</b>	<b>513,170.5 258</b>	<b>1,952.063 1</b>	<b>28.7116</b>	<b>570,528.1 712</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	12/31/2020	5	0	
2	Architectural Coating	Architectural Coating	1/13/2021	1/12/2021	5	0	
3	Grading	Grading	5/1/2021	4/30/2021	5	0	

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

4	Site Preparation	Site Preparation	5/2/2021	4/30/2021	5	0
5	Building Construction	Building Construction	9/29/2021	9/28/2021	5	0
6	Paving	Paving	11/15/2021	11/14/2021	5	0

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 40,449,780; Residential Outdoor: 13,483,260; Non-Residential Indoor: 117,126,750; Non-Residential Outdoor: 39,042,250; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Trips and VMT

### 3.1 Mitigation Measures Construction

### 3.3 Architectural Coating - 2021

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction Off-Site**

[illegible]

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site



## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

[illegible]

### Unmitigated Construction On-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

[illegible]

### Unmitigated Construction On-Site

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction Off-Site

[illegible]

### **Mitigated Construction On-Site**

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.7 Paving - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	136.0911	89.8937	1,242.3107	3.5301	407.5003	1.4213	408.9216	101.7161	1.3255	103.0416	0.0000	326,228.6124	326,228.6124	12.1736	11.4273	329,938.2967
Unmitigated	136.0911	89.8937	1,242.3107	3.5301	407.5003	1.4213	408.9216	101.7161	1.3255	103.0416	0.0000	326,228.6124	326,228.6124	12.1736	11.4273	329,938.2967

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586
Total	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.60	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
City Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Elementary School	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Golf Course	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Government Office Building	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Hotel	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Industrial Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Office Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Regional Shopping Center	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Single Family Housing	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76,365.3080	76,365.3080	16.7390	2.0290	77,388.4155
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76,365.3080	76,365.3080	16.7390	2.0290	77,388.4155
NaturalGas Mitigated	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	61,463.9992	61,463.9992	1.1781	1.1268	61,829.2491
NaturalGas Unmitigated	6.2106	55.3641	39.3873	0.3388		4.2910	4.2910		4.2910	4.2910	0.0000	61,463.9992	61,463.9992	1.1781	1.1268	61,829.2491



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	4.92402e+007	0.2655	2.2689	0.9655	0.0145		0.1834	0.1834		0.1834	0.1834	0.0000	2,627.6446	2,627.6446	0.0504	0.0482	2,643.2594
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.34492e+007	0.0725	0.6593	0.5538	3.9600e-003		0.0501	0.0501		0.0501	0.0501	0.0000	717.6979	717.6979	0.0138	0.0132	721.9628
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.31283e+007	0.0708	0.6436	0.5406	3.8600e-003		0.0489	0.0489		0.0489	0.0489	0.0000	700.5785	700.5785	0.0134	0.0128	704.7417
Hotel	4.00932e+006	0.0216	0.1965	0.1651	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.9526	213.9526	4.1000e-003	3.9200e-003	215.2240
Industrial Park	7.09566e+008	3.8261	34.7826	29.2174	0.2087		2.6435	2.6435		2.6435	2.6435	0.0000	37,865.1229	37,865.1229	0.7258	0.6942	38,090.1364
Office Park	3.17971e+007	0.1715	1.5587	1.3093	9.3500e-003		0.1185	0.1185		0.1185	0.1185	0.0000	1,696.8144	1,696.8144	0.0325	0.0311	1,706.8977
Regional Shopping Center	7.10342e+006	0.0383	0.3482	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265	0.0000	379.0653	379.0653	7.2700e-003	6.9500e-003	381.3179
Single Family Housing	3.23499e+008	1.7444	14.9063	6.3431	0.0952		1.2052	1.2052		1.2052	1.2052	0.0000	17,263.1230	17,263.1230	0.3309	0.3165	17,365.7091
<b>Total</b>		<b>6.2106</b>	<b>55.3641</b>	<b>39.3873</b>	<b>0.3388</b>		<b>4.2910</b>	<b>4.2910</b>		<b>4.2910</b>	<b>4.2910</b>	<b>0.0000</b>	<b>61,463.9992</b>	<b>61,463.9992</b>	<b>1.1781</b>	<b>1.1268</b>	<b>61,829.2491</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	4.92402e+007	0.2655	2.2689	0.9655	0.0145		0.1834	0.1834		0.1834	0.1834	0.0000	2,627.6446	2,627.6446	0.0504	0.0482	2,643.2594
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.34492e+007	0.0725	0.6593	0.5538	3.9600e-003		0.0501	0.0501		0.0501	0.0501	0.0000	717.6979	717.6979	0.0138	0.0132	721.9628
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.31283e+007	0.0708	0.6436	0.5406	3.8600e-003		0.0489	0.0489		0.0489	0.0489	0.0000	700.5785	700.5785	0.0134	0.0128	704.7417
Hotel	4.00932e+006	0.0216	0.1965	0.1651	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.9526	213.9526	4.1000e-003	3.9200e-003	215.2240
Industrial Park	7.09566e+008	3.8261	34.7826	29.2174	0.2087		2.6435	2.6435		2.6435	2.6435	0.0000	37,865.1229	37,865.1229	0.7258	0.6942	38,090.1364
Office Park	3.17971e+007	0.1715	1.5587	1.3093	9.3500e-003		0.1185	0.1185		0.1185	0.1185	0.0000	1,696.8144	1,696.8144	0.0325	0.0311	1,706.8977
Regional Shopping Center	7.10342e+006	0.0383	0.3482	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265	0.0000	379.0653	379.0653	7.2700e-003	6.9500e-003	381.3179
Single Family Housing	3.23499e+008	1.7444	14.9063	6.3431	0.0952		1.2052	1.2052		1.2052	1.2052	0.0000	17,263.1230	17,263.1230	0.3309	0.3165	17,365.7091
<b>Total</b>		<b>6.2106</b>	<b>55.3641</b>	<b>39.3873</b>	<b>0.3388</b>		<b>4.2910</b>	<b>4.2910</b>		<b>4.2910</b>	<b>4.2910</b>	<b>0.0000</b>	<b>61,463.9992</b>	<b>61,463.9992</b>	<b>1.1781</b>	<b>1.1268</b>	<b>61,829.2491</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.01719e +007	694.6213	0.1523	0.0185	703.9275
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	7.73487e +006	528.2014	0.1158	0.0140	535.2780
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.65799e +007	1,132.211 7	0.2482	0.0301	1,147.380 6
Hotel	1.28372e +006	87.6628	0.0192	2.3300e- 003	88.8372
Industrial Park	8.96115e +008	61,194.18 99	13.4135	1.6259	62,014.04 16
Office Park	4.6612e +007	3,183.057 5	0.6977	0.0846	3,225.702 7
Regional Shopping Center	5.89368e +007	4,024.697 0	0.8822	0.1069	4,078.618 1
Single Family Housing	8.08435e +007	5,520.666 5	1.2101	0.1467	5,594.629 8
<b>Total</b>		<b>76,365.30 80</b>	<b>16.7390</b>	<b>2.0290</b>	<b>77,388.41 55</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.01719e +007	694.6213	0.1523	0.0185	703.9275
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	7.73487e +006	528.2014	0.1158	0.0140	535.2780
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.65799e +007	1,132.211 7	0.2482	0.0301	1,147.380 6
Hotel	1.28372e +006	87.6628	0.0192	2.3300e- 003	88.8372
Industrial Park	8.96115e +008	61,194.18 99	13.4135	1.6259	62,014.04 16
Office Park	4.6612e +007	3,183.057 5	0.6977	0.0846	3,225.702 7
Regional Shopping Center	5.89368e +007	4,024.697 0	0.8822	0.1069	4,078.618 1
Single Family Housing	8.08435e +007	5,520.666 5	1.2101	0.1467	5,594.629 8
<b>Total</b>		<b>76,365.30 80</b>	<b>16.7390</b>	<b>2.0290</b>	<b>77,388.41 55</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	440.4916	4.6008	203.0121	0.2038		12.3019	12.3019		12.3019	12.3019	1,290.774 1	2,687.077 2	3,977.851 3	4.0492	0.0876	4,105.188 6
Unmitigated	440.4916	4.6008	203.0121	0.2038		12.3019	12.3019		12.3019	12.3019	1,290.774 1	2,687.077 2	3,977.851 3	4.0492	0.0876	4,105.188 6

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	42.4417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	354.4240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	39.8033	3.1517	77.2490	0.1971		11.6034	11.6034		11.6034	11.6034	1,290.774 1	2,480.424 5	3,771.198 6	3.8493	0.0876	3,893.539 4
Landscaping	3.8227	1.4491	125.7630	6.6900e-003		0.6985	0.6985		0.6985	0.6985	0.0000	206.6527	206.6527	0.1999	0.0000	211.6492
<b>Total</b>	<b>440.4916</b>	<b>4.6008</b>	<b>203.0121</b>	<b>0.2038</b>		<b>12.3019</b>	<b>12.3019</b>		<b>12.3019</b>	<b>12.3019</b>	<b>1,290.774 1</b>	<b>2,687.077 2</b>	<b>3,977.851 3</b>	<b>4.0492</b>	<b>0.0876</b>	<b>4,105.188 6</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	42.4417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	354.4240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	39.8033	3.1517	77.2490	0.1971		11.6034	11.6034		11.6034	11.6034	1,290.774 1	2,480.424 5	3,771.198 6	3.8493	0.0876	3,893.539 4
Landscaping	3.8227	1.4491	125.7630	6.6900e-003		0.6985	0.6985		0.6985	0.6985	0.0000	206.6527	206.6527	0.1999	0.0000	211.6492
<b>Total</b>	<b>440.4916</b>	<b>4.6008</b>	<b>203.0121</b>	<b>0.2038</b>		<b>12.3019</b>	<b>12.3019</b>		<b>12.3019</b>	<b>12.3019</b>	<b>1,290.774 1</b>	<b>2,687.077 2</b>	<b>3,977.851 3</b>	<b>4.0492</b>	<b>0.0876</b>	<b>4,105.188 6</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22,484.84 87	579.3522	14.0409	41,152.83 74
Unmitigated	22,484.84 87	579.3522	14.0409	41,152.83 74

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	154.611 / 97.4718	260.4780	5.0843	0.1246	424.7096
City Park	0 / 132.85	100.7912	0.0221	2.6800e-003	102.1416
Elementary School	37.319 / 95.9632	117.8287	1.2393	0.0315	158.2063
Golf Course	0 / 115.097	87.3223	0.0191	2.3200e-003	88.4922
Government Office Building	249.338 / 152.82	416.7521	8.1987	0.2008	681.5613
Hotel	6.84903 / 0.761003	8.8403	0.2246	5.4500e-003	16.0794
Industrial Park	15687.1 / 0	18,925.4835	514.2218	12.4403	35,488.2393
Office Park	574.915 / 352.367	960.9341	18.9043	0.4630	1,571.5230
Regional Shopping Center	318.89 / 195.448	533.0035	10.4857	0.2568	871.6802
Single Family Housing	637.141 / 401.676	1,073.4151	20.9522	0.5134	1,750.2046
<b>Total</b>		<b>22,484.8486</b>	<b>579.3522</b>	<b>14.0409</b>	<b>41,152.8374</b>



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	154.611 / 97.4718	260.4780	5.0843	0.1246	424.7096
City Park	0 / 132.85	100.7912	0.0221	2.6800e-003	102.1416
Elementary School	37.319 / 95.9632	117.8287	1.2393	0.0315	158.2063
Golf Course	0 / 115.097	87.3223	0.0191	2.3200e-003	88.4922
Government Office Building	249.338 / 152.82	416.7521	8.1987	0.2008	681.5613
Hotel	6.84903 / 0.761003	8.8403	0.2246	5.4500e-003	16.0794
Industrial Park	15687.1 / 0	18,925.4835	514.2218	12.4403	35,488.2393
Office Park	574.915 / 352.367	960.9341	18.9043	0.4630	1,571.5230
Regional Shopping Center	318.89 / 195.448	533.0035	10.4857	0.2568	871.6802
Single Family Housing	637.141 / 401.676	1,073.4151	20.9522	0.5134	1,750.2046
<b>Total</b>		<b>22,484.8486</b>	<b>579.3522</b>	<b>14.0409</b>	<b>41,152.8374</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22,649.90 62	1,338.571 1	0.0000	56,114.18 39
Unmitigated	22,649.90 62	1,338.571 1	0.0000	56,114.18 39

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1091.58	221.5809	13.0951	0.0000	548.9572
City Park	9.59	1.9467	0.1151	0.0000	4.8228
Elementary School	1673.1	339.6242	20.0712	0.0000	841.4045
Golf Course	89.84	18.2367	1.0778	0.0000	45.1807
Government Office Building	1167.24	236.9392	14.0027	0.0000	587.0068
Hotel	147.82	30.0061	1.7733	0.0000	74.3389
Industrial Park	84116.8	17,074.94 21	1,009.100 2	0.0000	42,302.44 63
Office Park	3008.27	610.6516	36.0885	0.0000	1,512.863 6
Regional Shopping Center	4520.36	917.5922	54.2282	0.0000	2,273.295 9
Single Family Housing	15756.3	3,198.386 5	189.0192	0.0000	7,923.867 2
<b>Total</b>		<b>22,649.90 62</b>	<b>1,338.571 1</b>	<b>0.0000</b>	<b>56,114.18 39</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1091.58	221.5809	13.0951	0.0000	548.9572
City Park	9.59	1.9467	0.1151	0.0000	4.8228
Elementary School	1673.1	339.6242	20.0712	0.0000	841.4045
Golf Course	89.84	18.2367	1.0778	0.0000	45.1807
Government Office Building	1167.24	236.9392	14.0027	0.0000	587.0068
Hotel	147.82	30.0061	1.7733	0.0000	74.3389
Industrial Park	84116.8	17,074.94 21	1,009.100 2	0.0000	42,302.44 63
Office Park	3008.27	610.6516	36.0885	0.0000	1,512.863 6
Regional Shopping Center	4520.36	917.5922	54.2282	0.0000	2,273.295 9
Single Family Housing	15756.3	3,198.386 5	189.0192	0.0000	7,923.867 2
<b>Total</b>		<b>22,649.90 62</b>	<b>1,338.571 1</b>	<b>0.0000</b>	<b>56,114.18 39</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Existing Land Uses; 2040)****Los Angeles-South Coast County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,255.10	1000sqft	185.10	1,255,100.00	0
Office Park	3,234.70	1000sqft	120.50	3,234,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,836.10	1000sqft	3,333.90	67,836,100.00	0
City Park	111.50	Acre	111.50	4,856,940.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	270.00	Room	4.40	166,500.00	0
Apartments Low Rise	2,373.00	Dwelling Unit	303.70	2,373,000.00	8488
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	38430
Regional Shopping Center	4,305.10	1000sqft	258.10	4,305,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9	<b>Operational Year</b>	2040		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	150.55	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE CO2 intensity factor updated to reflect estimated SCE RPS in 2040.

Land Use - Souce: EIR PD; Table 3-1. Gov't office building and ele school comprise public / institutional land use. Open / vacant / ROW space not modeled.

Construction Phase - Future run for existing land uses - no construction emissions modeled.

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Energy Use - T24 standards adjusted upward to reflect decreased efficiency between 2013/2016 and 2016/2019 standards. See CalEEMod Appendix E5; Tables 1, 3, and 4.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	54.80	303.39
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	2.28	2.68
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.88
tblEnergyUse	T24E	3.58	4.20
tblEnergyUse	T24E	93.13	502.24
tblEnergyUse	T24NG	9,487.85	14,366.19
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	19.72	20.02
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.64
tblEnergyUse	T24NG	1.14	1.16

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24NG	19,108.08	26,696.96
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	392,040.00	166,500.00
tblLandUse	LotAcreage	28.81	185.10
tblLandUse	LotAcreage	74.26	120.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,557.30	3,333.90
tblLandUse	LotAcreage	9.00	4.40
tblLandUse	LotAcreage	148.31	303.70
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	98.83	258.10
tblLandUse	Population	6,787.00	8,488.00
tblLandUse	Population	27,968.00	38,430.00
tblProjectCharacteristics	CO2IntensityFactor	390.98	150.55
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.3691e-008
tblVehicleEF	HHD	7.07	4.65
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.8520e-003	8.3235e-004
tblVehicleEF	HHD	921.34	605.94
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0584e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.5851e-007
tblVehicleEF	HHD	5.71	3.51
tblVehicleEF	HHD	2.38	1.05



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.1440e-003	1.4255e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	2.0520e-003	1.3585e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	2.0000e-006	1.6368e-005
tblVehicleEF	HHD	9.6000e-005	2.6412e-006
tblVehicleEF	HHD	0.47	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	3.6000e-005	3.0787e-005
tblVehicleEF	HHD	2.0000e-006	1.2095e-007
tblVehicleEF	HHD	8.5060e-003	5.3340e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9665e-008
tblVehicleEF	HHD	2.0000e-006	1.6368e-005
tblVehicleEF	HHD	9.6000e-005	2.6412e-006
tblVehicleEF	HHD	0.54	0.43
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	9.2430e-008
tblVehicleEF	HHD	3.6000e-005	3.0787e-005
tblVehicleEF	HHD	3.0000e-006	1.3243e-007
tblVehicleEF	HHD	0.03	0.11

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.2696e-008
tblVehicleEF	HHD	6.98	4.60
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.4030e-003	7.9059e-004
tblVehicleEF	HHD	909.55	598.69
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	7.9921e-003
tblVehicleEF	HHD	0.14	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.5419e-007
tblVehicleEF	HHD	5.43	3.34
tblVehicleEF	HHD	2.25	0.99
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	1.9010e-003	1.2807e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	1.8180e-003	1.2199e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	4.0000e-006	1.7378e-005
tblVehicleEF	HHD	9.8000e-005	2.7225e-006
tblVehicleEF	HHD	0.50	0.31
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1089e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	3.5000e-005	3.0829e-005
tblVehicleEF	HHD	2.0000e-006	1.1620e-007
tblVehicleEF	HHD	8.3970e-003	5.2654e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9010e-008
tblVehicleEF	HHD	4.0000e-006	1.7378e-005
tblVehicleEF	HHD	9.8000e-005	2.7225e-006
tblVehicleEF	HHD	0.57	0.45
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.11	8.8800e-008
tblVehicleEF	HHD	3.5000e-005	3.0829e-005
tblVehicleEF	HHD	3.0000e-006	1.2723e-007
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.3924e-008
tblVehicleEF	HHD	7.20	4.73
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.9350e-003	8.4064e-004
tblVehicleEF	HHD	937.61	615.95
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0715e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.6965e-007
tblVehicleEF	HHD	6.10	3.74
tblVehicleEF	HHD	2.34	1.03
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.4810e-003	1.6255e-003
tblVehicleEF	HHD	0.06	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	2.3740e-003	1.5499e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	2.0000e-006	1.6476e-005
tblVehicleEF	HHD	1.0000e-004	2.6303e-006
tblVehicleEF	HHD	0.43	0.27
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1078e-003
tblVehicleEF	HHD	4.0000e-005	3.1092e-005
tblVehicleEF	HHD	2.0000e-006	1.2205e-007
tblVehicleEF	HHD	8.6570e-003	5.4288e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9795e-008
tblVehicleEF	HHD	2.0000e-006	1.6476e-005
tblVehicleEF	HHD	1.0000e-004	2.6303e-006
tblVehicleEF	HHD	0.50	0.40
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	9.3266e-008
tblVehicleEF	HHD	4.0000e-005	3.1092e-005
tblVehicleEF	HHD	3.0000e-006	1.3363e-007
tblVehicleEF	LDA	7.7700e-004	1.0544e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.40	0.45
tblVehicleEF	LDA	1.31	1.44

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	193.73	213.20
tblVehicleEF	LDA	36.79	50.59
tblVehicleEF	LDA	3.0690e-003	2.7950e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.3020e-003	3.2139e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.9160e-003	2.1077e-003
tblVehicleEF	LDA	3.6400e-004	5.0011e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3330e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDA	8.3600e-004	1.0920e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.45	0.53
tblVehicleEF	LDA	1.12	1.24
tblVehicleEF	LDA	202.55	222.82
tblVehicleEF	LDA	36.47	50.22
tblVehicleEF	LDA	2.8150e-003	2.4743e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.10	0.13
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	2.4490e-003	3.2936e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	2.0040e-003	2.2028e-003
tblVehicleEF	LDA	3.6100e-004	4.9646e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.5480e-003	0.12

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	7.5900e-004	1.0447e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.39	0.42
tblVehicleEF	LDA	1.35	1.49
tblVehicleEF	LDA	190.51	209.66
tblVehicleEF	LDA	36.86	50.67
tblVehicleEF	LDA	2.9890e-003	2.7418e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.14
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.2540e-003	3.1913e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.8840e-003	2.0726e-003
tblVehicleEF	LDA	3.6500e-004	5.0094e-004
tblVehicleEF	LDA	0.02	0.20

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.2640e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDT1	1.0250e-003	1.7807e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.45	0.62
tblVehicleEF	LDT1	1.41	1.85
tblVehicleEF	LDT1	233.12	279.27
tblVehicleEF	LDT1	44.79	65.96
tblVehicleEF	LDT1	3.1660e-003	3.8841e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.2080e-003	6.1648e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.17



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	2.3070e-003	2.7608e-003
tblVehicleEF	LDT1	4.4300e-004	6.5203e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.6800e-003	0.18
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.09	0.18
tblVehicleEF	LDT1	1.0990e-003	1.8422e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.49	0.73
tblVehicleEF	LDT1	1.21	1.59
tblVehicleEF	LDT1	241.99	290.25
tblVehicleEF	LDT1	44.44	65.47
tblVehicleEF	LDT1	2.8730e-003	3.4385e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.11	0.18
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	3.4100e-003	6.3178e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.3950e-003	2.8694e-003
tblVehicleEF	LDT1	4.4000e-004	6.4727e-004
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	4.9750e-003	0.16
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	1.0020e-003	1.7647e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.43	0.58
tblVehicleEF	LDT1	1.46	1.91
tblVehicleEF	LDT1	229.86	275.22
tblVehicleEF	LDT1	44.86	66.07
tblVehicleEF	LDT1	3.0770e-003	3.8111e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.1420e-003	6.1213e-003
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.2750e-003	2.7208e-003
tblVehicleEF	LDT1	4.4400e-004	6.5312e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.5840e-003	0.19
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT2	1.2370e-003	1.6378e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.50	0.60
tblVehicleEF	LDT2	1.76	1.96
tblVehicleEF	LDT2	231.46	291.91
tblVehicleEF	LDT2	44.41	68.52
tblVehicleEF	LDT2	3.3840e-003	3.7140e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.19
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.1090e-003	5.3196e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2890e-003	2.8854e-003
tblVehicleEF	LDT2	4.3900e-004	6.7742e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.9260e-003	0.18
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	1.3260e-003	1.6953e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.55	0.71
tblVehicleEF	LDT2	1.50	1.68
tblVehicleEF	LDT2	239.44	302.38
tblVehicleEF	LDT2	43.97	68.01
tblVehicleEF	LDT2	3.1020e-003	3.3034e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	4.3550e-003	5.4502e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.15
tblVehicleEF	LDT2	2.3680e-003	2.9889e-003
tblVehicleEF	LDT2	4.3500e-004	6.7238e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2850e-003	0.16
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	1.2100e-003	1.6229e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.49	0.57
tblVehicleEF	LDT2	1.81	2.03
tblVehicleEF	LDT2	228.53	288.06
tblVehicleEF	LDT2	44.51	68.64
tblVehicleEF	LDT2	3.2980e-003	3.6458e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.0290e-003	5.2826e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2600e-003	2.8473e-003
tblVehicleEF	LDT2	4.4000e-004	6.7858e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.8090e-003	0.19
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.19
tblVehicleEF	LHD1	3.2430e-003	2.6463e-003
tblVehicleEF	LHD1	1.6140e-003	7.9635e-004
tblVehicleEF	LHD1	5.2840e-003	9.0101e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.69	1.37

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.07	10.37
tblVehicleEF	LHD1	7.4400e-004	4.4979e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4319e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	8.0000e-005	1.0250e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4319e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	3.2500e-003	2.6552e-003
tblVehicleEF	LHD1	1.6270e-003	1.2747e-003
tblVehicleEF	LHD1	5.1050e-003	8.7186e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.22
tblVehicleEF	LHD1	0.66	1.32
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.98
tblVehicleEF	LHD1	8.02	10.27
tblVehicleEF	LHD1	7.4600e-004	4.5093e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7247e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	7.9000e-005	1.0155e-004
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7247e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	3.2420e-003	2.6444e-003
tblVehicleEF	LHD1	1.6110e-003	1.2650e-003
tblVehicleEF	LHD1	5.3210e-003	9.0744e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.70	1.38
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.08	10.39

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	7.4400e-004	4.4965e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3911e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	8.0000e-005	1.0268e-004
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3911e-003
tblVehicleEF	LHD1	0.02	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD2	2.1740e-003	1.4472e-003
tblVehicleEF	LHD2	1.8050e-003	1.3182e-003
tblVehicleEF	LHD2	3.1420e-003	4.4152e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1388e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1140e-003	8.4488e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6226e-003
tblVehicleEF	LHD2	0.01	8.3367e-003
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.4423e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6226e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1790e-003	1.4516e-003
tblVehicleEF	LHD2	1.8120e-003	1.3205e-003
tblVehicleEF	LHD2	3.0360e-003	4.2726e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.41	0.72
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.39
tblVehicleEF	LHD2	5.72	5.45
tblVehicleEF	LHD2	1.5380e-003	1.1394e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	8.8900e-003	8.2277e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7873e-003
tblVehicleEF	LHD2	0.01	8.3367e-003
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.3913e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7873e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1740e-003	1.4462e-003
tblVehicleEF	LHD2	1.8030e-003	1.3176e-003
tblVehicleEF	LHD2	3.1640e-003	4.4467e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.64	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1388e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1920e-003	8.5173e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6012e-003
tblVehicleEF	LHD2	0.01	8.3367e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.4521e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6012e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.22	0.13
tblVehicleEF	MCY	17.74	10.66
tblVehicleEF	MCY	8.79	7.19
tblVehicleEF	MCY	224.86	192.79
tblVehicleEF	MCY	56.76	36.74
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.01	4.6951e-003
tblVehicleEF	MCY	1.13	0.47
tblVehicleEF	MCY	0.26	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003
tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.56	0.91
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.74	0.90
tblVehicleEF	MCY	2.2250e-003	1.9060e-003
tblVehicleEF	MCY	5.6200e-004	3.6326e-004
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.22	0.98
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.89	0.98
tblVehicleEF	MCY	0.37	0.15
tblVehicleEF	MCY	0.20	0.12
tblVehicleEF	MCY	17.16	10.82
tblVehicleEF	MCY	7.93	6.41
tblVehicleEF	MCY	223.77	193.09
tblVehicleEF	MCY	54.79	35.24
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.01	4.6358e-003
tblVehicleEF	MCY	0.99	0.42
tblVehicleEF	MCY	0.25	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	2.52	0.93
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.55	0.82
tblVehicleEF	MCY	2.2140e-003	1.9089e-003
tblVehicleEF	MCY	5.4200e-004	3.4841e-004
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	3.16	0.89
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.69	0.89
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.23	0.13
tblVehicleEF	MCY	17.83	10.62
tblVehicleEF	MCY	8.95	7.36
tblVehicleEF	MCY	225.03	192.71
tblVehicleEF	MCY	57.13	37.06
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.02	4.7787e-003
tblVehicleEF	MCY	1.10	0.46
tblVehicleEF	MCY	0.27	0.07
tblVehicleEF	MCY	0.01	0.01

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003
tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	2.57	0.91
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.77	0.92
tblVehicleEF	MCY	2.2270e-003	1.9052e-003
tblVehicleEF	MCY	5.6500e-004	3.6638e-004
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	3.23	1.00
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.93	1.00
tblVehicleEF	MDV	1.3150e-003	1.7674e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.51	0.62
tblVehicleEF	MDV	1.76	1.97
tblVehicleEF	MDV	281.64	348.15
tblVehicleEF	MDV	52.74	81.40
tblVehicleEF	MDV	4.6520e-003	4.3401e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	4.4900e-003	5.9525e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.18
tblVehicleEF	MDV	2.7830e-003	3.4403e-003
tblVehicleEF	MDV	5.2200e-004	8.0471e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.4680e-003	0.20
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.11	0.19
tblVehicleEF	MDV	1.4100e-003	1.8296e-003
tblVehicleEF	MDV	0.02	0.04
tblVehicleEF	MDV	0.56	0.73
tblVehicleEF	MDV	1.50	1.68
tblVehicleEF	MDV	289.51	358.45
tblVehicleEF	MDV	52.30	80.88

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	4.3600e-003	3.9068e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	4.7590e-003	6.0985e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.16
tblVehicleEF	MDV	2.8610e-003	3.5421e-003
tblVehicleEF	MDV	5.1800e-004	7.9962e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	6.8600e-003	0.18
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2860e-003	1.7512e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.49	0.58

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	1.81	2.03
tblVehicleEF	MDV	278.75	344.36
tblVehicleEF	MDV	52.84	81.52
tblVehicleEF	MDV	4.5620e-003	4.2681e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	4.4030e-003	5.9110e-003
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	2.7540e-003	3.4028e-003
tblVehicleEF	MDV	5.2300e-004	8.0589e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	6.3410e-003	0.20
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.12	0.20

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	3.1420e-003	2.7955e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.44	1.58
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.93	18.96
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.79
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8742e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1910e-003	2.8372e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	1.36	1.50
tblVehicleEF	MH	1,200.60	1,515.03
tblVehicleEF	MH	13.79	18.81
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.74
tblVehicleEF	MH	0.21	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3600e-004	1.8597e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1280e-003	2.7836e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.45	1.60
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.95	18.99
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.72	0.77
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1020e-003	0.07



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8772e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MHD	3.8760e-003	0.02
tblVehicleEF	MHD	6.9300e-004	6.2949e-003
tblVehicleEF	MHD	8.2770e-003	4.9520e-003
tblVehicleEF	MHD	0.38	0.43
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.45
tblVehicleEF	MHD	51.29	87.39
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.00	5.00
tblVehicleEF	MHD	7.2440e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.2400e-003	3.6900e-003
tblVehicleEF	MHD	0.26	0.43
tblVehicleEF	MHD	1.06	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	7.2000e-005	1.5134e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	6.9000e-005	1.4403e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3602e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	7.8910e-003	4.0266e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8700e-004	7.8460e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9412e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3602e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	9.4490e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	3.6860e-003	0.02
tblVehicleEF	MHD	7.0400e-004	6.3019e-003
tblVehicleEF	MHD	7.9900e-003	4.7822e-003
tblVehicleEF	MHD	0.32	0.40
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.72	0.43
tblVehicleEF	MHD	50.88	86.40

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	829.72	640.27
tblVehicleEF	MHD	7.94	4.96
tblVehicleEF	MHD	7.1500e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.0650e-003	3.6082e-003
tblVehicleEF	MHD	0.25	0.41
tblVehicleEF	MHD	1.00	0.16
tblVehicleEF	MHD	1.67	0.68
tblVehicleEF	MHD	6.3000e-005	1.3554e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005
tblVehicleEF	MHD	6.1000e-005	1.2891e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4295e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	7.9230e-003	4.0494e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8300e-004	7.7526e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9023e-005
tblVehicleEF	MHD	4.9400e-004	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.01	2.4295e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	9.4960e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.1520e-003	0.02
tblVehicleEF	MHD	6.8900e-004	6.2924e-003
tblVehicleEF	MHD	8.3190e-003	4.9803e-003
tblVehicleEF	MHD	0.46	0.48
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.46
tblVehicleEF	MHD	51.85	88.76
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.01	5.01
tblVehicleEF	MHD	7.3770e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.3310e-003	3.7301e-003
tblVehicleEF	MHD	0.28	0.46
tblVehicleEF	MHD	1.04	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	8.3000e-005	1.7318e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005
tblVehicleEF	MHD	8.0000e-005	1.6492e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3513e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	7.8820e-003	4.0201e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.9200e-004	7.9747e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9490e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3513e-003
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	9.4360e-003	0.02
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	OBUS	7.8260e-003	0.02
tblVehicleEF	OBUS	1.5290e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.68	0.69
tblVehicleEF	OBUS	0.19	0.38
tblVehicleEF	OBUS	1.59	1.52
tblVehicleEF	OBUS	88.67	93.17
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.03	13.19
tblVehicleEF	OBUS	0.01	0.01

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.43	0.24
tblVehicleEF	OBUS	1.14	0.65
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.4500e-004	2.5381e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.3800e-004	2.4192e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.4200e-004	8.3242e-004
tblVehicleEF	OBUS	0.01	9.8862e-003
tblVehicleEF	OBUS	1.3900e-004	1.3038e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.4400e-004	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	7.9300e-003	0.02
tblVehicleEF	OBUS	1.5580e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.67	0.68
tblVehicleEF	OBUS	0.19	0.39
tblVehicleEF	OBUS	1.51	1.44
tblVehicleEF	OBUS	87.61	92.17
tblVehicleEF	OBUS	1,066.30	1,094.48
tblVehicleEF	OBUS	13.88	13.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.41	0.23
tblVehicleEF	OBUS	1.07	0.61
tblVehicleEF	OBUS	0.97	0.53
tblVehicleEF	OBUS	1.2900e-004	2.2463e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.2300e-004	2.1400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	2.0320e-003	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.3200e-004	8.2297e-004
tblVehicleEF	OBUS	0.01	9.8862e-003
tblVehicleEF	OBUS	1.3700e-004	1.2898e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	7.7040e-003	0.02
tblVehicleEF	OBUS	1.5210e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.70
tblVehicleEF	OBUS	0.18	0.38
tblVehicleEF	OBUS	1.61	1.54
tblVehicleEF	OBUS	90.13	94.55
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.06	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.26



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1.12	0.63
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.6700e-004	2.9411e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.6000e-004	2.8047e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.5600e-004	8.4547e-004
tblVehicleEF	OBUS	0.01	9.8861e-003
tblVehicleEF	OBUS	1.3900e-004	1.3067e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6680e-003	1.02
tblVehicleEF	SBUS	9.4040e-003	6.1465e-003
tblVehicleEF	SBUS	4.65	3.01
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.19	0.71
tblVehicleEF	SBUS	307.82	222.75
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.46	4.86
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.5500e-003	6.7460e-003
tblVehicleEF	SBUS	1.21	0.32
tblVehicleEF	SBUS	1.21	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.2200e-004	5.9031e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	3.0800e-004	5.4446e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.1330e-003	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9550e-003	7.8221e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.4000e-005	4.8009e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.1330e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6950e-003	1.02
tblVehicleEF	SBUS	8.3730e-003	5.4878e-003
tblVehicleEF	SBUS	4.64	3.01
tblVehicleEF	SBUS	0.18	3.32
tblVehicleEF	SBUS	0.97	0.58
tblVehicleEF	SBUS	305.56	222.60
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.09	4.64
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.3010e-003	6.5812e-003
tblVehicleEF	SBUS	1.16	0.32
tblVehicleEF	SBUS	1.14	0.26
tblVehicleEF	SBUS	1.76	0.17
tblVehicleEF	SBUS	2.8400e-004	5.8436e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	2.7100e-004	5.3876e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9330e-003	7.8084e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.0000e-005	4.5841e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.13
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6600e-003	1.02
tblVehicleEF	SBUS	9.6290e-003	6.2974e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	4.67	3.02
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.23	0.73
tblVehicleEF	SBUS	310.93	222.95
tblVehicleEF	SBUS	851.47	827.15
tblVehicleEF	SBUS	7.53	4.90
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.7130e-003	6.8686e-003
tblVehicleEF	SBUS	1.28	0.33
tblVehicleEF	SBUS	1.19	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.7500e-004	5.9853e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	3.5800e-004	5.5232e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	2.9840e-003	7.8411e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.5000e-005	4.8425e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.8560e-003	9.3622e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.70	0.18
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.86	1.13
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3720e-003	1.4825e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.3717e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004
tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003
tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	2.7200e-004	2.9293e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	2.8180e-003	8.1040e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	0.09	9.4152e-003
tblVehicleEF	UBUS	5.6600e-004	3.0134e-003
tblVehicleEF	UBUS	0.04	3.2411e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.8000e-005	1.1170e-005
tblVehicleEF	UBUS	2.7200e-004	2.9293e-003
tblVehicleEF	UBUS	2.8180e-003	8.1040e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	6.01	1.9928e-003
tblVehicleEF	UBUS	5.6600e-004	3.0134e-003
tblVehicleEF	UBUS	0.04	3.5486e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.2230e-003	8.7928e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.62	0.16
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.71	1.10
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3030e-003	1.4532e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.06	8.9552e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004
tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	4.0600e-004	3.3431e-003
tblVehicleEF	UBUS	2.9850e-003	8.4253e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.09	9.4158e-003
tblVehicleEF	UBUS	5.1800e-004	3.0043e-003
tblVehicleEF	UBUS	0.03	3.0231e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.6000e-005	1.0873e-005
tblVehicleEF	UBUS	4.0600e-004	3.3431e-003
tblVehicleEF	UBUS	2.9850e-003	8.4253e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	6.01	1.8587e-003
tblVehicleEF	UBUS	5.1800e-004	3.0043e-003
tblVehicleEF	UBUS	0.04	3.3099e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.9960e-003	9.4983e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.72	0.19
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.89	1.14
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.4730e-003	1.5004e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.4663e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003
tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	2.8600e-004	2.9087e-003
tblVehicleEF	UBUS	3.1520e-003	8.0486e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	0.09	9.4151e-003
tblVehicleEF	UBUS	6.7900e-004	3.1346e-003
tblVehicleEF	UBUS	0.04	3.2934e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.8000e-005	1.1233e-005
tblVehicleEF	UBUS	2.8600e-004	2.9087e-003
tblVehicleEF	UBUS	3.1520e-003	8.0486e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	6.01	2.0249e-003
tblVehicleEF	UBUS	6.7900e-004	3.1346e-003
tblVehicleEF	UBUS	0.04	3.6058e-003
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.60
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	26.33
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	14.90
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	31.75

**2.0 Emissions Summary**

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction

### Mitigated Construction

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3 648	371,246.3 648	7.1156	6.8062	373,452.4 963
Mobile	841.3185	496.3427	8,125.062 4	22.2955	2,542.165 7	8.6886	2,550.854 3	634.3260	8.1030	642.4290		2,270,683. 4626	2,270,683. 4626	80.7397	72.9539	2,294,442. 2035
<b>Total</b>	<b>6,264.798 6</b>	<b>1,063.433 9</b>	<b>15,526.90 92</b>	<b>39.9708</b>	<b>2,542.165 7</b>	<b>966.0597</b>	<b>3,508.225 3</b>	<b>634.3260</b>	<b>965.4740</b>	<b>1,599.8000</b>	<b>113,826.7 924</b>	<b>2,862,488. 1921</b>	<b>2,976,314. 9845</b>	<b>429.0712</b>	<b>87.4858</b>	<b>3,013,112. 5307</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3 648	371,246.3 648	7.1156	6.8062	373,452.4 963
Mobile	841.3185	496.3427	8,125.062 4	22.2955	2,542.165 7	8.6886	2,550.854 3	634.3260	8.1030	642.4290		2,270,683. 4626	2,270,683. 4626	80.7397	72.9539	2,294,442. 2035
<b>Total</b>	<b>6,264.798 6</b>	<b>1,063.433 9</b>	<b>15,526.90 92</b>	<b>39.9708</b>	<b>2,542.165 7</b>	<b>966.0597</b>	<b>3,508.225 3</b>	<b>634.3260</b>	<b>965.4740</b>	<b>1,599.8000</b>	<b>113,826.7 924</b>	<b>2,862,488. 1921</b>	<b>2,976,314. 9845</b>	<b>429.0712</b>	<b>87.4858</b>	<b>3,013,112. 5307</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	12/31/2020	5	0	
2	Architectural Coating	Architectural Coating	1/13/2021	1/12/2021	5	0	
3	Grading	Grading	5/1/2021	4/30/2021	5	0	
4	Site Preparation	Site Preparation	5/2/2021	4/30/2021	5	0	
5	Building Construction	Building Construction	9/29/2021	9/28/2021	5	0	
6	Paving	Paving	11/15/2021	11/14/2021	5	0	

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 40,449,780; Residential Outdoor: 13,483,260; Non-Residential Indoor: 117,126,750; Non-Residential Outdoor: 39,042,250; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40,952.00	15,583.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8,190.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction On-Site**

[illegible]

### **Mitigated Construction Off-Site**

[illegible]



## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	841.3185	496.3427	8,125.0624	22.2955	2,542.1657	8.6886	2,550.8543	634.3260	8.1030	642.4290		2,270,683.4626	2,270,683.4626	80.7397	72.9539	2,294,442.2035
Unmitigated	841.3185	496.3427	8,125.0624	22.2955	2,542.1657	8.6886	2,550.8543	634.3260	8.1030	642.4290		2,270,683.4626	2,270,683.4626	80.7397	72.9539	2,294,442.2035

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586
Total	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586

## 4.3 Trip Type Information

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.60	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
City Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Elementary School	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Golf Course	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Government Office Building	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Hotel	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Industrial Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Office Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Regional Shopping Center	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Single Family Housing	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963
NaturalGas Unmitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35968.1	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10984.4	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1.94402e+006	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87115.3	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19461.4	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134.905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36.847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35.9681	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10.9844	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1944.02	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87.1153	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19.4614	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886.298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

## 6.0 Area Detail

## 6.1 Mitigation Measures Area

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309
Unmitigated	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.049 1					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.261 5	252.1336	6,179.922 0	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7 924	218,736.0 000	332,562.7 924	339.4535	7.7258	343,351.4 046
Landscaping	30.5816	11.5927	1,006.104 3	0.0535		5.5879	5.5879		5.5879	5.5879		1,822.364 7	1,822.364 7	1.7625		1,866.426 4
<b>Total</b>	<b>5,389.449 2</b>	<b>263.7263</b>	<b>7,186.026 3</b>	<b>15.8191</b>		<b>933.8588</b>	<b>933.8588</b>		<b>933.8588</b>	<b>933.8588</b>	<b>113,826.7 924</b>	<b>220,558.3 647</b>	<b>334,385.1 571</b>	<b>341.2159</b>	<b>7.7258</b>	<b>345,217.8 309</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.0491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.2615	252.1336	6,179.9220	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7924	218,736.0000	332,562.7924	339.4535	7.7258	343,351.4046
Landscaping	30.5816	11.5927	1,006.1043	0.0535		5.5879	5.5879		5.5879	5.5879		1,822.3647	1,822.3647	1.7625		1,866.4264
<b>Total</b>	<b>5,389.4492</b>	<b>263.7263</b>	<b>7,186.0263</b>	<b>15.8191</b>		<b>933.8588</b>	<b>933.8588</b>		<b>933.8588</b>	<b>933.8588</b>	<b>113,826.7924</b>	<b>220,558.3647</b>	<b>334,385.1571</b>	<b>341.2159</b>	<b>7.7258</b>	<b>345,217.8309</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Existing Land Uses; 2040)****Los Angeles-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,255.10	1000sqft	185.10	1,255,100.00	0
Office Park	3,234.70	1000sqft	120.50	3,234,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,836.10	1000sqft	3,333.90	67,836,100.00	0
City Park	111.50	Acre	111.50	4,856,940.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	270.00	Room	4.40	166,500.00	0
Apartments Low Rise	2,373.00	Dwelling Unit	303.70	2,373,000.00	8488
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	38430
Regional Shopping Center	4,305.10	1000sqft	258.10	4,305,100.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9	<b>Operational Year</b>	2040		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	150.55	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE CO2 intensity factor updated to reflect estimated SCE RPS in 2040.

Land Use - Souce: EIR PD; Table 3-1. Gov't office building and ele school comprise public / institutional land use. Open / vacant / ROW space not modeled.

Construction Phase - Future run for existing land uses - no construction emissions modeled.

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Energy Use - T24 standards adjusted upward to reflect decreased efficiency between 2013/2016 and 2016/2019 standards. See CalEEMod Appendix E5; Tables 1, 3, and 4.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	54.80	303.39
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	2.28	2.68
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.88
tblEnergyUse	T24E	3.58	4.20
tblEnergyUse	T24E	93.13	502.24
tblEnergyUse	T24NG	9,487.85	14,366.19
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	19.72	20.02
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.64
tblEnergyUse	T24NG	1.14	1.16

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24NG	19,108.08	26,696.96
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	392,040.00	166,500.00
tblLandUse	LotAcreage	28.81	185.10
tblLandUse	LotAcreage	74.26	120.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,557.30	3,333.90
tblLandUse	LotAcreage	9.00	4.40
tblLandUse	LotAcreage	148.31	303.70
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	98.83	258.10
tblLandUse	Population	6,787.00	8,488.00
tblLandUse	Population	27,968.00	38,430.00
tblProjectCharacteristics	CO2IntensityFactor	390.98	150.55
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.3691e-008
tblVehicleEF	HHD	7.07	4.65
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.8520e-003	8.3235e-004
tblVehicleEF	HHD	921.34	605.94
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0584e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.5851e-007
tblVehicleEF	HHD	5.71	3.51
tblVehicleEF	HHD	2.38	1.05

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.1440e-003	1.4255e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	2.0520e-003	1.3585e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	2.0000e-006	1.6368e-005
tblVehicleEF	HHD	9.6000e-005	2.6412e-006
tblVehicleEF	HHD	0.47	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	3.6000e-005	3.0787e-005
tblVehicleEF	HHD	2.0000e-006	1.2095e-007
tblVehicleEF	HHD	8.5060e-003	5.3340e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9665e-008
tblVehicleEF	HHD	2.0000e-006	1.6368e-005
tblVehicleEF	HHD	9.6000e-005	2.6412e-006
tblVehicleEF	HHD	0.54	0.43
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	9.2430e-008
tblVehicleEF	HHD	3.6000e-005	3.0787e-005
tblVehicleEF	HHD	3.0000e-006	1.3243e-007
tblVehicleEF	HHD	0.03	0.11

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.2696e-008
tblVehicleEF	HHD	6.98	4.60
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.4030e-003	7.9059e-004
tblVehicleEF	HHD	909.55	598.69
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	7.9921e-003
tblVehicleEF	HHD	0.14	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.5419e-007
tblVehicleEF	HHD	5.43	3.34
tblVehicleEF	HHD	2.25	0.99
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	1.9010e-003	1.2807e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	1.8180e-003	1.2199e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	4.0000e-006	1.7378e-005
tblVehicleEF	HHD	9.8000e-005	2.7225e-006
tblVehicleEF	HHD	0.50	0.31
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1089e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	3.5000e-005	3.0829e-005
tblVehicleEF	HHD	2.0000e-006	1.1620e-007
tblVehicleEF	HHD	8.3970e-003	5.2654e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9010e-008
tblVehicleEF	HHD	4.0000e-006	1.7378e-005
tblVehicleEF	HHD	9.8000e-005	2.7225e-006
tblVehicleEF	HHD	0.57	0.45
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.11	8.8800e-008
tblVehicleEF	HHD	3.5000e-005	3.0829e-005
tblVehicleEF	HHD	3.0000e-006	1.2723e-007
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	0.00	2.3924e-008
tblVehicleEF	HHD	7.20	4.73
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.9350e-003	8.4064e-004
tblVehicleEF	HHD	937.61	615.95
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0715e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	6.6965e-007
tblVehicleEF	HHD	6.10	3.74
tblVehicleEF	HHD	2.34	1.03
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.4810e-003	1.6255e-003
tblVehicleEF	HHD	0.06	0.08

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.9341e-008
tblVehicleEF	HHD	2.3740e-003	1.5499e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8695e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	8.2146e-008
tblVehicleEF	HHD	2.0000e-006	1.6476e-005
tblVehicleEF	HHD	1.0000e-004	2.6303e-006
tblVehicleEF	HHD	0.43	0.27
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1078e-003
tblVehicleEF	HHD	4.0000e-005	3.1092e-005
tblVehicleEF	HHD	2.0000e-006	1.2205e-007
tblVehicleEF	HHD	8.6570e-003	5.4288e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	7.9795e-008
tblVehicleEF	HHD	2.0000e-006	1.6476e-005
tblVehicleEF	HHD	1.0000e-004	2.6303e-006
tblVehicleEF	HHD	0.50	0.40
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	9.3266e-008
tblVehicleEF	HHD	4.0000e-005	3.1092e-005
tblVehicleEF	HHD	3.0000e-006	1.3363e-007
tblVehicleEF	LDA	7.7700e-004	1.0544e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.40	0.45
tblVehicleEF	LDA	1.31	1.44

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	193.73	213.20
tblVehicleEF	LDA	36.79	50.59
tblVehicleEF	LDA	3.0690e-003	2.7950e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.3020e-003	3.2139e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.9160e-003	2.1077e-003
tblVehicleEF	LDA	3.6400e-004	5.0011e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3330e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDA	8.3600e-004	1.0920e-003



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.45	0.53
tblVehicleEF	LDA	1.12	1.24
tblVehicleEF	LDA	202.55	222.82
tblVehicleEF	LDA	36.47	50.22
tblVehicleEF	LDA	2.8150e-003	2.4743e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.10	0.13
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	2.4490e-003	3.2936e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	2.0040e-003	2.2028e-003
tblVehicleEF	LDA	3.6100e-004	4.9646e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.5480e-003	0.12

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	7.5900e-004	1.0447e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.39	0.42
tblVehicleEF	LDA	1.35	1.49
tblVehicleEF	LDA	190.51	209.66
tblVehicleEF	LDA	36.86	50.67
tblVehicleEF	LDA	2.9890e-003	2.7418e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.14
tblVehicleEF	LDA	0.04	8.0477e-003
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.7900e-004	5.7380e-004
tblVehicleEF	LDA	7.4000e-004	8.7138e-004
tblVehicleEF	LDA	0.02	2.8167e-003
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.2400e-004	5.2763e-004
tblVehicleEF	LDA	6.8100e-004	8.0120e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.2540e-003	3.1913e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.8840e-003	2.0726e-003
tblVehicleEF	LDA	3.6500e-004	5.0094e-004
tblVehicleEF	LDA	0.02	0.20

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.2640e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDT1	1.0250e-003	1.7807e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.45	0.62
tblVehicleEF	LDT1	1.41	1.85
tblVehicleEF	LDT1	233.12	279.27
tblVehicleEF	LDT1	44.79	65.96
tblVehicleEF	LDT1	3.1660e-003	3.8841e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.2080e-003	6.1648e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.17

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	2.3070e-003	2.7608e-003
tblVehicleEF	LDT1	4.4300e-004	6.5203e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.6800e-003	0.18
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.09	0.18
tblVehicleEF	LDT1	1.0990e-003	1.8422e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.49	0.73
tblVehicleEF	LDT1	1.21	1.59
tblVehicleEF	LDT1	241.99	290.25
tblVehicleEF	LDT1	44.44	65.47
tblVehicleEF	LDT1	2.8730e-003	3.4385e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.11	0.18
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	3.4100e-003	6.3178e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.3950e-003	2.8694e-003
tblVehicleEF	LDT1	4.4000e-004	6.4727e-004
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	4.9750e-003	0.16
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	1.0020e-003	1.7647e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.43	0.58
tblVehicleEF	LDT1	1.46	1.91
tblVehicleEF	LDT1	229.86	275.22
tblVehicleEF	LDT1	44.86	66.07
tblVehicleEF	LDT1	3.0770e-003	3.8111e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	7.9200e-004	7.6936e-004
tblVehicleEF	LDT1	8.6300e-004	1.1241e-003
tblVehicleEF	LDT1	0.02	3.6443e-003
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.2800e-004	7.0740e-004
tblVehicleEF	LDT1	7.9400e-004	1.0336e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.1420e-003	6.1213e-003
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.2750e-003	2.7208e-003
tblVehicleEF	LDT1	4.4400e-004	6.5312e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.5840e-003	0.19
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT2	1.2370e-003	1.6378e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.50	0.60
tblVehicleEF	LDT2	1.76	1.96
tblVehicleEF	LDT2	231.46	291.91
tblVehicleEF	LDT2	44.41	68.52
tblVehicleEF	LDT2	3.3840e-003	3.7140e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.19
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.1090e-003	5.3196e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2890e-003	2.8854e-003
tblVehicleEF	LDT2	4.3900e-004	6.7742e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.9260e-003	0.18
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	1.3260e-003	1.6953e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.55	0.71
tblVehicleEF	LDT2	1.50	1.68
tblVehicleEF	LDT2	239.44	302.38
tblVehicleEF	LDT2	43.97	68.01
tblVehicleEF	LDT2	3.1020e-003	3.3034e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	4.3550e-003	5.4502e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.15
tblVehicleEF	LDT2	2.3680e-003	2.9889e-003
tblVehicleEF	LDT2	4.3500e-004	6.7238e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2850e-003	0.16
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	1.2100e-003	1.6229e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.49	0.57
tblVehicleEF	LDT2	1.81	2.03
tblVehicleEF	LDT2	228.53	288.06
tblVehicleEF	LDT2	44.51	68.64
tblVehicleEF	LDT2	3.2980e-003	3.6458e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.7200e-004	6.7402e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5638e-003
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1100e-004	6.2033e-004
tblVehicleEF	LDT2	7.1100e-004	8.6430e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.0290e-003	5.2826e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2600e-003	2.8473e-003
tblVehicleEF	LDT2	4.4000e-004	6.7858e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.8090e-003	0.19
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.19
tblVehicleEF	LHD1	3.2430e-003	2.6463e-003
tblVehicleEF	LHD1	1.6140e-003	7.9635e-004
tblVehicleEF	LHD1	5.2840e-003	9.0101e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.69	1.37

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.07	10.37
tblVehicleEF	LHD1	7.4400e-004	4.4979e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4319e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	8.0000e-005	1.0250e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4319e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	3.2500e-003	2.6552e-003
tblVehicleEF	LHD1	1.6270e-003	1.2747e-003
tblVehicleEF	LHD1	5.1050e-003	8.7186e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.22
tblVehicleEF	LHD1	0.66	1.32
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.98
tblVehicleEF	LHD1	8.02	10.27
tblVehicleEF	LHD1	7.4600e-004	4.5093e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7247e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	7.9000e-005	1.0155e-004
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7247e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	3.2420e-003	2.6444e-003
tblVehicleEF	LHD1	1.6110e-003	1.2650e-003
tblVehicleEF	LHD1	5.3210e-003	9.0744e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.70	1.38
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.08	10.39

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	7.4400e-004	4.4965e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6684e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0448e-003
tblVehicleEF	LHD1	3.7290e-003	3.6305e-003
tblVehicleEF	LHD1	1.6800e-004	5.2849e-005
tblVehicleEF	LHD1	1.0260e-003	5.4232e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2612e-003
tblVehicleEF	LHD1	3.5460e-003	3.4589e-003
tblVehicleEF	LHD1	1.5400e-004	4.8593e-005
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3911e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.3908e-005
tblVehicleEF	LHD1	5.0430e-003	3.0534e-003
tblVehicleEF	LHD1	8.0000e-005	1.0268e-004
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3911e-003
tblVehicleEF	LHD1	0.02	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD2	2.1740e-003	1.4472e-003
tblVehicleEF	LHD2	1.8050e-003	1.3182e-003
tblVehicleEF	LHD2	3.1420e-003	4.4152e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1388e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1140e-003	8.4488e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6226e-003
tblVehicleEF	LHD2	0.01	8.3367e-003
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.4423e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6226e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1790e-003	1.4516e-003
tblVehicleEF	LHD2	1.8120e-003	1.3205e-003
tblVehicleEF	LHD2	3.0360e-003	4.2726e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.41	0.72
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.39
tblVehicleEF	LHD2	5.72	5.45
tblVehicleEF	LHD2	1.5380e-003	1.1394e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	8.8900e-003	8.2277e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7873e-003
tblVehicleEF	LHD2	0.01	8.3367e-003
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.3913e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7873e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1740e-003	1.4462e-003
tblVehicleEF	LHD2	1.8030e-003	1.3176e-003
tblVehicleEF	LHD2	3.1640e-003	4.4467e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.64	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1388e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1920e-003	8.5173e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0236e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8129e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.4983e-005
tblVehicleEF	LHD2	1.4270e-003	9.7928e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4532e-003
tblVehicleEF	LHD2	9.0480e-003	6.5579e-003
tblVehicleEF	LHD2	9.4000e-005	2.2971e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6012e-003
tblVehicleEF	LHD2	0.01	8.3367e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.5994e-005
tblVehicleEF	LHD2	5.0470e-003	3.4507e-003
tblVehicleEF	LHD2	5.7000e-005	5.4521e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6012e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.22	0.13
tblVehicleEF	MCY	17.74	10.66
tblVehicleEF	MCY	8.79	7.19
tblVehicleEF	MCY	224.86	192.79
tblVehicleEF	MCY	56.76	36.74
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.01	4.6951e-003
tblVehicleEF	MCY	1.13	0.47
tblVehicleEF	MCY	0.26	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003
tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.56	0.91
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.74	0.90
tblVehicleEF	MCY	2.2250e-003	1.9060e-003
tblVehicleEF	MCY	5.6200e-004	3.6326e-004
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.22	0.98
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.89	0.98
tblVehicleEF	MCY	0.37	0.15
tblVehicleEF	MCY	0.20	0.12
tblVehicleEF	MCY	17.16	10.82
tblVehicleEF	MCY	7.93	6.41
tblVehicleEF	MCY	223.77	193.09
tblVehicleEF	MCY	54.79	35.24
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.01	4.6358e-003
tblVehicleEF	MCY	0.99	0.42
tblVehicleEF	MCY	0.25	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	2.52	0.93
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.55	0.82
tblVehicleEF	MCY	2.2140e-003	1.9089e-003
tblVehicleEF	MCY	5.4200e-004	3.4841e-004
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	3.16	0.89
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.69	0.89
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.23	0.13
tblVehicleEF	MCY	17.83	10.62
tblVehicleEF	MCY	8.95	7.36
tblVehicleEF	MCY	225.03	192.71
tblVehicleEF	MCY	57.13	37.06
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.02	4.7787e-003
tblVehicleEF	MCY	1.10	0.46
tblVehicleEF	MCY	0.27	0.07
tblVehicleEF	MCY	0.01	0.01

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.7870e-003	2.4972e-003
tblVehicleEF	MCY	2.9880e-003	3.5983e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3283e-003
tblVehicleEF	MCY	2.7880e-003	3.3578e-003
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	2.57	0.91
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.77	0.92
tblVehicleEF	MCY	2.2270e-003	1.9052e-003
tblVehicleEF	MCY	5.6500e-004	3.6638e-004
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	3.23	1.00
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.93	1.00
tblVehicleEF	MDV	1.3150e-003	1.7674e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.51	0.62
tblVehicleEF	MDV	1.76	1.97
tblVehicleEF	MDV	281.64	348.15
tblVehicleEF	MDV	52.74	81.40
tblVehicleEF	MDV	4.6520e-003	4.3401e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	4.4900e-003	5.9525e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.18
tblVehicleEF	MDV	2.7830e-003	3.4403e-003
tblVehicleEF	MDV	5.2200e-004	8.0471e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.4680e-003	0.20
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.11	0.19
tblVehicleEF	MDV	1.4100e-003	1.8296e-003
tblVehicleEF	MDV	0.02	0.04
tblVehicleEF	MDV	0.56	0.73
tblVehicleEF	MDV	1.50	1.68
tblVehicleEF	MDV	289.51	358.45
tblVehicleEF	MDV	52.30	80.88

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	4.3600e-003	3.9068e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	4.7590e-003	6.0985e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.16
tblVehicleEF	MDV	2.8610e-003	3.5421e-003
tblVehicleEF	MDV	5.1800e-004	7.9962e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	6.8600e-003	0.18
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2860e-003	1.7512e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.49	0.58

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	1.81	2.03
tblVehicleEF	MDV	278.75	344.36
tblVehicleEF	MDV	52.84	81.52
tblVehicleEF	MDV	4.5620e-003	4.2681e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	7.8000e-004	6.8518e-004
tblVehicleEF	MDV	7.8800e-004	9.5140e-004
tblVehicleEF	MDV	0.02	3.5911e-003
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.1900e-004	6.3054e-004
tblVehicleEF	MDV	7.2500e-004	8.7478e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	4.4030e-003	5.9110e-003
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	2.7540e-003	3.4028e-003
tblVehicleEF	MDV	5.2300e-004	8.0589e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	6.3410e-003	0.20
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.12	0.20



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	3.1420e-003	2.7955e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.44	1.58
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.93	18.96
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.79
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8742e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1910e-003	2.8372e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	1.36	1.50
tblVehicleEF	MH	1,200.60	1,515.03
tblVehicleEF	MH	13.79	18.81
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.74
tblVehicleEF	MH	0.21	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3600e-004	1.8597e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1280e-003	2.7836e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.45	1.60
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.95	18.99
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.72	0.77
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3025e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3467e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1171e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1020e-003	0.07

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8772e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MHD	3.8760e-003	0.02
tblVehicleEF	MHD	6.9300e-004	6.2949e-003
tblVehicleEF	MHD	8.2770e-003	4.9520e-003
tblVehicleEF	MHD	0.38	0.43
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.45
tblVehicleEF	MHD	51.29	87.39
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.00	5.00
tblVehicleEF	MHD	7.2440e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.2400e-003	3.6900e-003
tblVehicleEF	MHD	0.26	0.43
tblVehicleEF	MHD	1.06	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	7.2000e-005	1.5134e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	6.9000e-005	1.4403e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3602e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	7.8910e-003	4.0266e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8700e-004	7.8460e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9412e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3602e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	9.4490e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	3.6860e-003	0.02
tblVehicleEF	MHD	7.0400e-004	6.3019e-003
tblVehicleEF	MHD	7.9900e-003	4.7822e-003
tblVehicleEF	MHD	0.32	0.40
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.72	0.43
tblVehicleEF	MHD	50.88	86.40

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	829.72	640.27
tblVehicleEF	MHD	7.94	4.96
tblVehicleEF	MHD	7.1500e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.0650e-003	3.6082e-003
tblVehicleEF	MHD	0.25	0.41
tblVehicleEF	MHD	1.00	0.16
tblVehicleEF	MHD	1.67	0.68
tblVehicleEF	MHD	6.3000e-005	1.3554e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005
tblVehicleEF	MHD	6.1000e-005	1.2891e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4295e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	7.9230e-003	4.0494e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8300e-004	7.7526e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9023e-005
tblVehicleEF	MHD	4.9400e-004	0.02

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.01	2.4295e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	9.4960e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.1520e-003	0.02
tblVehicleEF	MHD	6.8900e-004	6.2924e-003
tblVehicleEF	MHD	8.3190e-003	4.9803e-003
tblVehicleEF	MHD	0.46	0.48
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.46
tblVehicleEF	MHD	51.85	88.76
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.01	5.01
tblVehicleEF	MHD	7.3770e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.3310e-003	3.7301e-003
tblVehicleEF	MHD	0.28	0.46
tblVehicleEF	MHD	1.04	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	8.3000e-005	1.7318e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.2460e-003	2.1772e-003
tblVehicleEF	MHD	1.1300e-004	6.2120e-005
tblVehicleEF	MHD	8.0000e-005	1.6492e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	3.0000e-003	3.0000e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	5.9690e-003	2.0786e-003
tblVehicleEF	MHD	1.0400e-004	5.7117e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3513e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	7.8820e-003	4.0201e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.9200e-004	7.9747e-004
tblVehicleEF	MHD	7.9240e-003	6.0398e-003
tblVehicleEF	MHD	7.9000e-005	4.9490e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3513e-003
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	9.4360e-003	0.02
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	OBUS	7.8260e-003	0.02
tblVehicleEF	OBUS	1.5290e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.68	0.69
tblVehicleEF	OBUS	0.19	0.38
tblVehicleEF	OBUS	1.59	1.52
tblVehicleEF	OBUS	88.67	93.17
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.03	13.19
tblVehicleEF	OBUS	0.01	0.01



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.43	0.24
tblVehicleEF	OBUS	1.14	0.65
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.4500e-004	2.5381e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.3800e-004	2.4192e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.4200e-004	8.3242e-004
tblVehicleEF	OBUS	0.01	9.8862e-003
tblVehicleEF	OBUS	1.3900e-004	1.3038e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.4400e-004	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	7.9300e-003	0.02
tblVehicleEF	OBUS	1.5580e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.67	0.68
tblVehicleEF	OBUS	0.19	0.39
tblVehicleEF	OBUS	1.51	1.44
tblVehicleEF	OBUS	87.61	92.17
tblVehicleEF	OBUS	1,066.30	1,094.48
tblVehicleEF	OBUS	13.88	13.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.41	0.23
tblVehicleEF	OBUS	1.07	0.61
tblVehicleEF	OBUS	0.97	0.53
tblVehicleEF	OBUS	1.2900e-004	2.2463e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.2300e-004	2.1400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	2.0320e-003	0.10

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.3200e-004	8.2297e-004
tblVehicleEF	OBUS	0.01	9.8862e-003
tblVehicleEF	OBUS	1.3700e-004	1.2898e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	7.7040e-003	0.02
tblVehicleEF	OBUS	1.5210e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.70
tblVehicleEF	OBUS	0.18	0.38
tblVehicleEF	OBUS	1.61	1.54
tblVehicleEF	OBUS	90.13	94.55
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.06	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.26

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1.12	0.63
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.6700e-004	2.9411e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3637e-004
tblVehicleEF	OBUS	1.6000e-004	2.8047e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.3270e-003	9.8137e-003
tblVehicleEF	OBUS	1.7500e-004	1.2538e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.5600e-004	8.4547e-004
tblVehicleEF	OBUS	0.01	9.8861e-003
tblVehicleEF	OBUS	1.3900e-004	1.3067e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6680e-003	1.02
tblVehicleEF	SBUS	9.4040e-003	6.1465e-003
tblVehicleEF	SBUS	4.65	3.01
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.19	0.71
tblVehicleEF	SBUS	307.82	222.75
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.46	4.86
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.5500e-003	6.7460e-003
tblVehicleEF	SBUS	1.21	0.32
tblVehicleEF	SBUS	1.21	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.2200e-004	5.9031e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	3.0800e-004	5.4446e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.1330e-003	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9550e-003	7.8221e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.4000e-005	4.8009e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.1330e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6950e-003	1.02
tblVehicleEF	SBUS	8.3730e-003	5.4878e-003
tblVehicleEF	SBUS	4.64	3.01
tblVehicleEF	SBUS	0.18	3.32
tblVehicleEF	SBUS	0.97	0.58
tblVehicleEF	SBUS	305.56	222.60
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.09	4.64
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.3010e-003	6.5812e-003
tblVehicleEF	SBUS	1.16	0.32
tblVehicleEF	SBUS	1.14	0.26
tblVehicleEF	SBUS	1.76	0.17
tblVehicleEF	SBUS	2.8400e-004	5.8436e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	2.7100e-004	5.3876e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9330e-003	7.8084e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.0000e-005	4.5841e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.13
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6600e-003	1.02
tblVehicleEF	SBUS	9.6290e-003	6.2974e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	4.67	3.02
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.23	0.73
tblVehicleEF	SBUS	310.93	222.95
tblVehicleEF	SBUS	851.47	827.15
tblVehicleEF	SBUS	7.53	4.90
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.7130e-003	6.8686e-003
tblVehicleEF	SBUS	1.28	0.33
tblVehicleEF	SBUS	1.19	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.7500e-004	5.9853e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9962e-003
tblVehicleEF	SBUS	4.0590e-003	2.2852e-003
tblVehicleEF	SBUS	1.2700e-004	6.7396e-005
tblVehicleEF	SBUS	3.5800e-004	5.5232e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4991e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.1969e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	2.9840e-003	7.8411e-004
tblVehicleEF	SBUS	8.1830e-003	4.0927e-003
tblVehicleEF	SBUS	7.5000e-005	4.8425e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.8560e-003	9.3622e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.70	0.18
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.86	1.13
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3720e-003	1.4825e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.3717e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004
tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003
tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	2.7200e-004	2.9293e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	2.8180e-003	8.1040e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	0.09	9.4152e-003
tblVehicleEF	UBUS	5.6600e-004	3.0134e-003
tblVehicleEF	UBUS	0.04	3.2411e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.8000e-005	1.1170e-005
tblVehicleEF	UBUS	2.7200e-004	2.9293e-003
tblVehicleEF	UBUS	2.8180e-003	8.1040e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	6.01	1.9928e-003
tblVehicleEF	UBUS	5.6600e-004	3.0134e-003
tblVehicleEF	UBUS	0.04	3.5486e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.2230e-003	8.7928e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.62	0.16
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.71	1.10
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3030e-003	1.4532e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.06	8.9552e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004
tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	4.0600e-004	3.3431e-003
tblVehicleEF	UBUS	2.9850e-003	8.4253e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.09	9.4158e-003
tblVehicleEF	UBUS	5.1800e-004	3.0043e-003
tblVehicleEF	UBUS	0.03	3.0231e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.6000e-005	1.0873e-005
tblVehicleEF	UBUS	4.0600e-004	3.3431e-003
tblVehicleEF	UBUS	2.9850e-003	8.4253e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	6.01	1.8587e-003
tblVehicleEF	UBUS	5.1800e-004	3.0043e-003
tblVehicleEF	UBUS	0.04	3.3099e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.9960e-003	9.4983e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.72	0.19
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.89	1.14
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.4730e-003	1.5004e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.4663e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3177e-004

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	8.7000e-005	5.0713e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2096e-003
tblVehicleEF	UBUS	3.1370e-003	1.2534e-004
tblVehicleEF	UBUS	8.0000e-005	4.6629e-006
tblVehicleEF	UBUS	2.8600e-004	2.9087e-003
tblVehicleEF	UBUS	3.1520e-003	8.0486e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	0.09	9.4151e-003
tblVehicleEF	UBUS	6.7900e-004	3.1346e-003
tblVehicleEF	UBUS	0.04	3.2934e-003
tblVehicleEF	UBUS	1.0800e-003	1.0410e-004
tblVehicleEF	UBUS	6.8000e-005	1.1233e-005
tblVehicleEF	UBUS	2.8600e-004	2.9087e-003
tblVehicleEF	UBUS	3.1520e-003	8.0486e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	6.01	2.0249e-003
tblVehicleEF	UBUS	6.7900e-004	3.1346e-003
tblVehicleEF	UBUS	0.04	3.6058e-003
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.60
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	26.33
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	14.90
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	31.75

**2.0 Emissions Summary**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction

### Mitigated Construction

[illegible]

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3 648	371,246.3 648	7.1156	6.8062	373,452.4 963
Mobile	837.9477	544.5380	7,384.573 9	21.3191	2,542.165 7	8.6907	2,550.856 4	634.3260	8.1050	642.4310		2,171,921. 3630	2,171,921. 3630	82.4119	76.6943	2,196,836. 5493
<b>Total</b>	<b>6,261.427 8</b>	<b>1,111.629 2</b>	<b>14,786.42 08</b>	<b>38.9944</b>	<b>2,542.165 7</b>	<b>966.0618</b>	<b>3,508.227 4</b>	<b>634.3260</b>	<b>965.4761</b>	<b>1,599.8021</b>	<b>113,826.7 924</b>	<b>2,763,726. 0925</b>	<b>2,877,552. 8849</b>	<b>430.7434</b>	<b>91.2262</b>	<b>2,915,506. 8765</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309
Energy	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3 648	371,246.3 648	7.1156	6.8062	373,452.4 963
Mobile	837.9477	544.5380	7,384.573 9	21.3191	2,542.165 7	8.6907	2,550.856 4	634.3260	8.1050	642.4310		2,171,921. 3630	2,171,921. 3630	82.4119	76.6943	2,196,836. 5493
<b>Total</b>	<b>6,261.427 8</b>	<b>1,111.629 2</b>	<b>14,786.42 08</b>	<b>38.9944</b>	<b>2,542.165 7</b>	<b>966.0618</b>	<b>3,508.227 4</b>	<b>634.3260</b>	<b>965.4761</b>	<b>1,599.8021</b>	<b>113,826.7 924</b>	<b>2,763,726. 0925</b>	<b>2,877,552. 8849</b>	<b>430.7434</b>	<b>91.2262</b>	<b>2,915,506. 8765</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	12/31/2020	5	0	
2	Architectural Coating	Architectural Coating	1/13/2021	1/12/2021	5	0	
3	Grading	Grading	5/1/2021	4/30/2021	5	0	
4	Site Preparation	Site Preparation	5/2/2021	4/30/2021	5	0	
5	Building Construction	Building Construction	9/29/2021	9/28/2021	5	0	
6	Paving	Paving	11/15/2021	11/14/2021	5	0	

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 40,449,780; Residential Outdoor: 13,483,260; Non-Residential Indoor: 117,126,750; Non-Residential Outdoor: 39,042,250; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40,952.00	15,583.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8,190.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]



### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	837.9477	544.5380	7,384.5739	21.3191	2,542.1657	8.6907	2,550.8564	634.3260	8.1050	642.4310		2,171,921.3630	2,171,921.3630	82.4119	76.6943	2,196,836.5493
Unmitigated	837.9477	544.5380	7,384.5739	21.3191	2,542.1657	8.6907	2,550.8564	634.3260	8.1050	642.4310		2,171,921.3630	2,171,921.3630	82.4119	76.6943	2,196,836.5493

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586
Total	310,483.25	257,481.07	145,707.10	1,179,620,586	1,179,620,586

## 4.3 Trip Type Information

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.60	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
City Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Elementary School	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Golf Course	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Government Office Building	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Hotel	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Industrial Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Office Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Regional Shopping Center	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Single Family Housing	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963
NaturalGas Unmitigated	34.0309	303.3649	215.8206	1.8562		23.5123	23.5123		23.5123	23.5123		371,246.3648	371,246.3648	7.1156	6.8062	373,452.4963

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35968.1	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10984.4	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1.94402e+006	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87115.3	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19461.4	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	134.905	1.4549	12.4324	5.2904	0.0794		1.0052	1.0052		1.0052	1.0052		15,871.1365	15,871.1365	0.3042	0.2910	15,965.4507
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36.847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35.9681	0.3879	3.5263	2.9621	0.0212		0.2680	0.2680		0.2680	0.2680		4,231.5378	4,231.5378	0.0811	0.0776	4,256.6837
Hotel	10.9844	0.1185	1.0769	0.9046	6.4600e-003		0.0818	0.0818		0.0818	0.0818		1,292.2869	1,292.2869	0.0248	0.0237	1,299.9663
Industrial Park	1944.02	20.9649	190.5897	160.0954	1.1435		14.4848	14.4848		14.4848	14.4848		228,707.6893	228,707.6893	4.3836	4.1930	230,066.7847
Office Park	87.1153	0.9395	8.5407	7.1742	0.0512		0.6491	0.6491		0.6491	0.6491		10,248.8641	10,248.8641	0.1964	0.1879	10,309.7680
Regional Shopping Center	19.4614	0.2099	1.9080	1.6027	0.0115		0.1450	0.1450		0.1450	0.1450		2,289.5778	2,289.5778	0.0439	0.0420	2,303.1836
Single Family Housing	886.298	9.5581	81.6784	34.7568	0.5214		6.6038	6.6038		6.6038	6.6038		104,270.3329	104,270.3329	1.9985	1.9116	104,889.9594
<b>Total</b>		<b>34.0309</b>	<b>303.3649</b>	<b>215.8206</b>	<b>1.8562</b>		<b>23.5123</b>	<b>23.5123</b>		<b>23.5123</b>	<b>23.5123</b>		<b>371,246.3648</b>	<b>371,246.3648</b>	<b>7.1156</b>	<b>6.8062</b>	<b>373,452.4963</b>

## 6.0 Area Detail

## 6.1 Mitigation Measures Area



## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309
Unmitigated	5,389.449 2	263.7263	7,186.026 3	15.8191		933.8588	933.8588		933.8588	933.8588	113,826.7 924	220,558.3 647	334,385.1 571	341.2160	7.7258	345,217.8 309

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.049 1					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.261 5	252.1336	6,179.922 0	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7 924	218,736.0 000	332,562.7 924	339.4535	7.7258	343,351.4 046
Landscaping	30.5816	11.5927	1,006.104 3	0.0535		5.5879	5.5879		5.5879	5.5879		1,822.364 7	1,822.364 7	1.7625		1,866.426 4
<b>Total</b>	<b>5,389.449 2</b>	<b>263.7263</b>	<b>7,186.026 3</b>	<b>15.8191</b>		<b>933.8588</b>	<b>933.8588</b>		<b>933.8588</b>	<b>933.8588</b>	<b>113,826.7 924</b>	<b>220,558.3 647</b>	<b>334,385.1 571</b>	<b>341.2159</b>	<b>7.7258</b>	<b>345,217.8 309</b>

## Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	232.5570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1,942.0491					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,184.2615	252.1336	6,179.9220	15.7655		928.2709	928.2709		928.2709	928.2709	113,826.7924	218,736.0000	332,562.7924	339.4535	7.7258	343,351.4046
Landscaping	30.5816	11.5927	1,006.1043	0.0535		5.5879	5.5879		5.5879	5.5879		1,822.3647	1,822.3647	1.7625		1,866.4264
<b>Total</b>	<b>5,389.4492</b>	<b>263.7263</b>	<b>7,186.0263</b>	<b>15.8191</b>		<b>933.8588</b>	<b>933.8588</b>		<b>933.8588</b>	<b>933.8588</b>	<b>113,826.7924</b>	<b>220,558.3647</b>	<b>334,385.1571</b>	<b>341.2159</b>	<b>7.7258</b>	<b>345,217.8309</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Santa Fe Springs GPU (Existing Land Uses; 2040) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

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8.1 Mitigation Measures Waste

9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Proposed GPU; 2040)****Los Angeles-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,250.90	1000sqft	69.30	1,250,900.00	0
Office Park	3,598.70	1000sqft	178.50	3,598,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,104.90	1000sqft	3,183.10	67,104,900.00	0
City Park	106.50	Acre	106.50	4,639,140.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	1,020.00	Room	15.30	580,400.00	0
Apartments Low Rise	4,267.00	Dwelling Unit	364.20	4,267,000.00	12204
Apartments Mid Rise	2,678.00	Dwelling Unit	53.50	2,678,000.00	7659
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	27968
Regional Shopping Center	5,751.90	1000sqft	453.60	5,751,900.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	150.55	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE GHG intensity factor for CO2 updated to reflect estimated SCE 2040 energy mix.

Land Use - Source: EIR PD; Tables 3-2 and 3-3. Open / vacant / ROW space not modeled.

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Construction Phase - Future operational model run - no construction emissions modeled.

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Energy Use - Assumes low- and med-apt and hotel built to 2019 T24 Code. Ele schl, govt off, and ind prk remain at 2013 T24 Code. Remaining see minor imprs to avg 2016 T24 Code standards. Factors obtained from CMod v2020.4.0; adj CMod Apdx Tbl 1, 3, 4

Woodstoves - Wood burning devices excluded from new dev pursuant to SCAQMD Rule 445. Modeling assumes existing dev that remains has stoves/hearths per default values.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.25
tblEnergyUse	T24E	3.58	3.75
tblEnergyUse	T24E	93.13	105.47
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.55
tblEnergyUse	T24NG	1.14	1.15
tblEnergyUse	T24NG	19,108.08	24,187.44
tblFireplaces	NumberGas	3,626.95	3,911.05

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblFireplaces	NumberGas	2,276.30	2,678.00
tblFireplaces	NumberNoFireplace	426.70	237.30
tblFireplaces	NumberNoFireplace	267.80	0.00
tblFireplaces	NumberWood	213.35	118.65
tblFireplaces	NumberWood	133.90	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	1,481,040.00	580,400.00
tblLandUse	LotAcreage	28.72	69.30
tblLandUse	LotAcreage	82.61	178.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,540.52	3,183.10
tblLandUse	LotAcreage	34.00	15.30
tblLandUse	LotAcreage	266.69	364.20
tblLandUse	LotAcreage	70.47	53.50
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	132.05	453.60
tblProjectCharacteristics	CO2IntensityFactor	390.98	150.55
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.07	4.65
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.8520e-003	8.3200e-004
tblVehicleEF	HHD	921.34	605.94
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0580e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	5.71	3.51
tblVehicleEF	HHD	2.38	1.05
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.1440e-003	1.4260e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0520e-003	1.3590e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	9.6000e-005	3.0000e-006
tblVehicleEF	HHD	0.47	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	3.6000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.5060e-003	5.3340e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	9.6000e-005	3.0000e-006
tblVehicleEF	HHD	0.54	0.43
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.6000e-005	3.1000e-005

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	6.98	4.60
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.4030e-003	7.9100e-004
tblVehicleEF	HHD	909.55	598.69
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	7.9920e-003
tblVehicleEF	HHD	0.14	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006
tblVehicleEF	HHD	5.43	3.34
tblVehicleEF	HHD	2.25	0.99
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	1.9010e-003	1.2810e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	1.8180e-003	1.2200e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	4.0000e-006	1.7000e-005
tblVehicleEF	HHD	9.8000e-005	3.0000e-006
tblVehicleEF	HHD	0.50	0.31
tblVehicleEF	HHD	3.0000e-006	0.00



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.02	9.1090e-003
tblVehicleEF	HHD	3.5000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.3970e-003	5.2650e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	4.0000e-006	1.7000e-005
tblVehicleEF	HHD	9.8000e-005	3.0000e-006
tblVehicleEF	HHD	0.57	0.45
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.5000e-005	3.1000e-005
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.20	4.73
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.9350e-003	8.4100e-004
tblVehicleEF	HHD	937.61	615.95
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0720e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006
tblVehicleEF	HHD	6.10	3.74
tblVehicleEF	HHD	2.34	1.03
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.4810e-003	1.6260e-003
tblVehicleEF	HHD	0.06	0.08

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.3740e-003	1.5500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	1.0000e-004	3.0000e-006
tblVehicleEF	HHD	0.43	0.27
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	4.0000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.6570e-003	5.4290e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	1.0000e-004	3.0000e-006
tblVehicleEF	HHD	0.50	0.40
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	4.0000e-005	3.1000e-005
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	7.7700e-004	1.0540e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.40	0.45
tblVehicleEF	LDA	1.31	1.44

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	193.73	213.20
tblVehicleEF	LDA	36.79	50.59
tblVehicleEF	LDA	3.0690e-003	2.7950e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.3020e-003	3.2140e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.9160e-003	2.1080e-003
tblVehicleEF	LDA	3.6400e-004	5.0000e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3330e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDA	8.3600e-004	1.0920e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.45	0.53

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	1.12	1.24
tblVehicleEF	LDA	202.55	222.82
tblVehicleEF	LDA	36.47	50.22
tblVehicleEF	LDA	2.8150e-003	2.4740e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.10	0.13
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	2.4490e-003	3.2940e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	2.0040e-003	2.2030e-003
tblVehicleEF	LDA	3.6100e-004	4.9600e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.5480e-003	0.12
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	7.5900e-004	1.0450e-003
tblVehicleEF	LDA	0.02	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.39	0.42
tblVehicleEF	LDA	1.35	1.49
tblVehicleEF	LDA	190.51	209.66
tblVehicleEF	LDA	36.86	50.67
tblVehicleEF	LDA	2.9890e-003	2.7420e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.14
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.2540e-003	3.1910e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.8840e-003	2.0730e-003
tblVehicleEF	LDA	3.6500e-004	5.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.2640e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDT1	1.0250e-003	1.7810e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.45	0.62
tblVehicleEF	LDT1	1.41	1.85
tblVehicleEF	LDT1	233.12	279.27
tblVehicleEF	LDT1	44.79	65.96
tblVehicleEF	LDT1	3.1660e-003	3.8840e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.2080e-003	6.1650e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.3070e-003	2.7610e-003
tblVehicleEF	LDT1	4.4300e-004	6.5200e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.6800e-003	0.18
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.09	0.18

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	1.0990e-003	1.8420e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.49	0.73
tblVehicleEF	LDT1	1.21	1.59
tblVehicleEF	LDT1	241.99	290.25
tblVehicleEF	LDT1	44.44	65.47
tblVehicleEF	LDT1	2.8730e-003	3.4380e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.11	0.18
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	3.4100e-003	6.3180e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.3950e-003	2.8690e-003
tblVehicleEF	LDT1	4.4000e-004	6.4700e-004
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	4.9750e-003	0.16
tblVehicleEF	LDT1	0.03	0.25

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	1.0020e-003	1.7650e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.43	0.58
tblVehicleEF	LDT1	1.46	1.91
tblVehicleEF	LDT1	229.86	275.22
tblVehicleEF	LDT1	44.86	66.07
tblVehicleEF	LDT1	3.0770e-003	3.8110e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.1420e-003	6.1210e-003
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.2750e-003	2.7210e-003
tblVehicleEF	LDT1	4.4400e-004	6.5300e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.5840e-003	0.19



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT2	1.2370e-003	1.6380e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.50	0.60
tblVehicleEF	LDT2	1.76	1.96
tblVehicleEF	LDT2	231.46	291.91
tblVehicleEF	LDT2	44.41	68.52
tblVehicleEF	LDT2	3.3840e-003	3.7140e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.19
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.1090e-003	5.3200e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2890e-003	2.8850e-003
tblVehicleEF	LDT2	4.3900e-004	6.7700e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	5.9260e-003	0.18
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	1.3260e-003	1.6950e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.55	0.71
tblVehicleEF	LDT2	1.50	1.68
tblVehicleEF	LDT2	239.44	302.38
tblVehicleEF	LDT2	43.97	68.01
tblVehicleEF	LDT2	3.1020e-003	3.3030e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	4.3550e-003	5.4500e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.15
tblVehicleEF	LDT2	2.3680e-003	2.9890e-003
tblVehicleEF	LDT2	4.3500e-004	6.7200e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2850e-003	0.16
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	1.2100e-003	1.6230e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.49	0.57
tblVehicleEF	LDT2	1.81	2.03
tblVehicleEF	LDT2	228.53	288.06
tblVehicleEF	LDT2	44.51	68.64
tblVehicleEF	LDT2	3.2980e-003	3.6460e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.0290e-003	5.2830e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2600e-003	2.8470e-003
tblVehicleEF	LDT2	4.4000e-004	6.7900e-004
tblVehicleEF	LDT2	0.03	0.21

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.8090e-003	0.19
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.19
tblVehicleEF	LHD1	3.2430e-003	2.6460e-003
tblVehicleEF	LHD1	1.6140e-003	7.9600e-004
tblVehicleEF	LHD1	5.2840e-003	9.0100e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.69	1.37
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.07	10.37
tblVehicleEF	LHD1	7.4400e-004	4.5000e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4320e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	8.0000e-005	1.0300e-004
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4320e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	3.2500e-003	2.6550e-003
tblVehicleEF	LHD1	1.6270e-003	1.2750e-003
tblVehicleEF	LHD1	5.1050e-003	8.7190e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.22
tblVehicleEF	LHD1	0.66	1.32
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.98
tblVehicleEF	LHD1	8.02	10.27
tblVehicleEF	LHD1	7.4600e-004	4.5100e-004
tblVehicleEF	LHD1	0.03	0.02

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003
tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7250e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	7.9000e-005	1.0200e-004
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7250e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.03	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	3.2420e-003	2.6440e-003
tblVehicleEF	LHD1	1.6110e-003	1.2650e-003
tblVehicleEF	LHD1	5.3210e-003	9.0740e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.70	1.38
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.08	10.39
tblVehicleEF	LHD1	7.4400e-004	4.5000e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003
tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3910e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	8.0000e-005	1.0300e-004
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3910e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD2	2.1740e-003	1.4470e-003
tblVehicleEF	LHD2	1.8050e-003	1.3180e-003
tblVehicleEF	LHD2	3.1420e-003	4.4150e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1140e-003	8.4490e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6230e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.4000e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6230e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1790e-003	1.4520e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	1.8120e-003	1.3210e-003
tblVehicleEF	LHD2	3.0360e-003	4.2730e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.41	0.72
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.39
tblVehicleEF	LHD2	5.72	5.45
tblVehicleEF	LHD2	1.5380e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	8.8900e-003	8.2280e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7870e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.03	0.03

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.4000e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7870e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1740e-003	1.4460e-003
tblVehicleEF	LHD2	1.8030e-003	1.3180e-003
tblVehicleEF	LHD2	3.1640e-003	4.4470e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.64	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1920e-003	8.5170e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6010e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.5000e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6010e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.22	0.13
tblVehicleEF	MCY	17.74	10.66
tblVehicleEF	MCY	8.79	7.19

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	224.86	192.79
tblVehicleEF	MCY	56.76	36.74
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.01	4.6950e-003
tblVehicleEF	MCY	1.13	0.47
tblVehicleEF	MCY	0.26	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.56	0.91
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.74	0.90
tblVehicleEF	MCY	2.2250e-003	1.9060e-003
tblVehicleEF	MCY	5.6200e-004	3.6300e-004
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.22	0.98
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.89	0.98
tblVehicleEF	MCY	0.37	0.15
tblVehicleEF	MCY	0.20	0.12
tblVehicleEF	MCY	17.16	10.82

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	7.93	6.41
tblVehicleEF	MCY	223.77	193.09
tblVehicleEF	MCY	54.79	35.24
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.01	4.6360e-003
tblVehicleEF	MCY	0.99	0.42
tblVehicleEF	MCY	0.25	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	2.52	0.93
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.55	0.82
tblVehicleEF	MCY	2.2140e-003	1.9090e-003
tblVehicleEF	MCY	5.4200e-004	3.4800e-004
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	3.16	0.89
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.69	0.89
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.23	0.13

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	17.83	10.62
tblVehicleEF	MCY	8.95	7.36
tblVehicleEF	MCY	225.03	192.71
tblVehicleEF	MCY	57.13	37.06
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.02	4.7790e-003
tblVehicleEF	MCY	1.10	0.46
tblVehicleEF	MCY	0.27	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	2.57	0.91
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.77	0.92
tblVehicleEF	MCY	2.2270e-003	1.9050e-003
tblVehicleEF	MCY	5.6500e-004	3.6600e-004
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	3.23	1.00
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.93	1.00
tblVehicleEF	MDV	1.3150e-003	1.7670e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.51	0.62
tblVehicleEF	MDV	1.76	1.97
tblVehicleEF	MDV	281.64	348.15
tblVehicleEF	MDV	52.74	81.40
tblVehicleEF	MDV	4.6520e-003	4.3400e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	4.4900e-003	5.9520e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.18
tblVehicleEF	MDV	2.7830e-003	3.4400e-003
tblVehicleEF	MDV	5.2200e-004	8.0500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.4680e-003	0.20
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.11	0.19



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	1.4100e-003	1.8300e-003
tblVehicleEF	MDV	0.02	0.04
tblVehicleEF	MDV	0.56	0.73
tblVehicleEF	MDV	1.50	1.68
tblVehicleEF	MDV	289.51	358.45
tblVehicleEF	MDV	52.30	80.88
tblVehicleEF	MDV	4.3600e-003	3.9070e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	4.7590e-003	6.0990e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.16
tblVehicleEF	MDV	2.8610e-003	3.5420e-003
tblVehicleEF	MDV	5.1800e-004	8.0000e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	6.8600e-003	0.18
tblVehicleEF	MDV	0.03	0.17

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2860e-003	1.7510e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.49	0.58
tblVehicleEF	MDV	1.81	2.03
tblVehicleEF	MDV	278.75	344.36
tblVehicleEF	MDV	52.84	81.52
tblVehicleEF	MDV	4.5620e-003	4.2680e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	4.4030e-003	5.9110e-003
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	2.7540e-003	3.4030e-003
tblVehicleEF	MDV	5.2300e-004	8.0600e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	6.3410e-003	0.20

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MH	3.1420e-003	2.7950e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.44	1.58
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.93	18.96
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.79
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8700e-004
tblVehicleEF	MH	0.25	11.73

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1910e-003	2.8370e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	1.36	1.50
tblVehicleEF	MH	1,200.60	1,515.03
tblVehicleEF	MH	13.79	18.81
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.74
tblVehicleEF	MH	0.21	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.06	0.07

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3600e-004	1.8600e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1280e-003	2.7840e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.45	1.60
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.95	18.99
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.72	0.77
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8800e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MHD	3.8760e-003	0.02
tblVehicleEF	MHD	6.9300e-004	6.2950e-003
tblVehicleEF	MHD	8.2770e-003	4.9520e-003
tblVehicleEF	MHD	0.38	0.43
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.45
tblVehicleEF	MHD	51.29	87.39
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.00	5.00
tblVehicleEF	MHD	7.2440e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.2400e-003	3.6900e-003
tblVehicleEF	MHD	0.26	0.43
tblVehicleEF	MHD	1.06	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	7.2000e-005	1.5100e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	6.9000e-005	1.4400e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3600e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	7.8910e-003	4.0270e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8700e-004	7.8500e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3600e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	9.4490e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	3.6860e-003	0.02
tblVehicleEF	MHD	7.0400e-004	6.3020e-003
tblVehicleEF	MHD	7.9900e-003	4.7820e-003
tblVehicleEF	MHD	0.32	0.40
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.72	0.43
tblVehicleEF	MHD	50.88	86.40

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	829.72	640.27
tblVehicleEF	MHD	7.94	4.96
tblVehicleEF	MHD	7.1500e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.0650e-003	3.6080e-003
tblVehicleEF	MHD	0.25	0.41
tblVehicleEF	MHD	1.00	0.16
tblVehicleEF	MHD	1.67	0.68
tblVehicleEF	MHD	6.3000e-005	1.3600e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003
tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	6.1000e-005	1.2900e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4300e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	7.9230e-003	4.0490e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8300e-004	7.7500e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4300e-003
tblVehicleEF	MHD	0.02	0.03



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	9.4960e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.1520e-003	0.02
tblVehicleEF	MHD	6.8900e-004	6.2920e-003
tblVehicleEF	MHD	8.3190e-003	4.9800e-003
tblVehicleEF	MHD	0.46	0.48
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.46
tblVehicleEF	MHD	51.85	88.76
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.01	5.01
tblVehicleEF	MHD	7.3770e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.3310e-003	3.7300e-003
tblVehicleEF	MHD	0.28	0.46
tblVehicleEF	MHD	1.04	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	8.3000e-005	1.7300e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003
tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	8.0000e-005	1.6500e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3510e-003

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	7.8820e-003	4.0200e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.9200e-004	7.9700e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3510e-003
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	9.4360e-003	0.02
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	OBUS	7.8260e-003	0.02
tblVehicleEF	OBUS	1.5290e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.68	0.69
tblVehicleEF	OBUS	0.19	0.38
tblVehicleEF	OBUS	1.59	1.52
tblVehicleEF	OBUS	88.67	93.17
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.03	13.19
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.43	0.24
tblVehicleEF	OBUS	1.14	0.65

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.4500e-004	2.5400e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.3800e-004	2.4200e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.4200e-004	8.3200e-004
tblVehicleEF	OBUS	0.01	9.8860e-003
tblVehicleEF	OBUS	1.3900e-004	1.3000e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	7.9300e-003	0.02
tblVehicleEF	OBUS	1.5580e-003	0.05
tblVehicleEF	OBUS	0.02	0.01

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.67	0.68
tblVehicleEF	OBUS	0.19	0.39
tblVehicleEF	OBUS	1.51	1.44
tblVehicleEF	OBUS	87.61	92.17
tblVehicleEF	OBUS	1,066.30	1,094.48
tblVehicleEF	OBUS	13.88	13.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.41	0.23
tblVehicleEF	OBUS	1.07	0.61
tblVehicleEF	OBUS	0.97	0.53
tblVehicleEF	OBUS	1.2900e-004	2.2500e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.2300e-004	2.1400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.3200e-004	8.2300e-004
tblVehicleEF	OBUS	0.01	9.8860e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1.3700e-004	1.2900e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	7.7040e-003	0.02
tblVehicleEF	OBUS	1.5210e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.70
tblVehicleEF	OBUS	0.18	0.38
tblVehicleEF	OBUS	1.61	1.54
tblVehicleEF	OBUS	90.13	94.55
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.06	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.26
tblVehicleEF	OBUS	1.12	0.63
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.6700e-004	2.9400e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.6000e-004	2.8000e-004
tblVehicleEF	OBUS	0.06	0.02

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.5600e-004	8.4500e-004
tblVehicleEF	OBUS	0.01	9.8860e-003
tblVehicleEF	OBUS	1.3900e-004	1.3100e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6680e-003	1.02
tblVehicleEF	SBUS	9.4040e-003	6.1470e-003
tblVehicleEF	SBUS	4.65	3.01
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.19	0.71
tblVehicleEF	SBUS	307.82	222.75
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.46	4.86
tblVehicleEF	SBUS	0.04	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.5500e-003	6.7460e-003
tblVehicleEF	SBUS	1.21	0.32
tblVehicleEF	SBUS	1.21	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.2200e-004	5.9000e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	3.0800e-004	5.4400e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.1330e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9550e-003	7.8200e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.4000e-005	4.8000e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.1330e-003	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6950e-003	1.02
tblVehicleEF	SBUS	8.3730e-003	5.4880e-003
tblVehicleEF	SBUS	4.64	3.01
tblVehicleEF	SBUS	0.18	3.32
tblVehicleEF	SBUS	0.97	0.58
tblVehicleEF	SBUS	305.56	222.60
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.09	4.64
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.3010e-003	6.5810e-003
tblVehicleEF	SBUS	1.16	0.32
tblVehicleEF	SBUS	1.14	0.26
tblVehicleEF	SBUS	1.76	0.17
tblVehicleEF	SBUS	2.8400e-004	5.8400e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	2.7100e-004	5.3900e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	2.7120e-003	0.10



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9330e-003	7.8100e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.0000e-005	4.6000e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.13
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6600e-003	1.02
tblVehicleEF	SBUS	9.6290e-003	6.2970e-003
tblVehicleEF	SBUS	4.67	3.02
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.23	0.73
tblVehicleEF	SBUS	310.93	222.95
tblVehicleEF	SBUS	851.47	827.15
tblVehicleEF	SBUS	7.53	4.90
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.7130e-003	6.8690e-003
tblVehicleEF	SBUS	1.28	0.33

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	1.19	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.7500e-004	5.9900e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	3.5800e-004	5.5200e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	2.9840e-003	7.8400e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.5000e-005	4.8000e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.8560e-003	9.3600e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.70	0.18
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.86	1.13
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3720e-003	1.4830e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.3720e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	2.7200e-004	2.9290e-003
tblVehicleEF	UBUS	2.8180e-003	8.1000e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	0.09	9.4150e-003
tblVehicleEF	UBUS	5.6600e-004	3.0130e-003
tblVehicleEF	UBUS	0.04	3.2410e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.8000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7200e-004	2.9290e-003
tblVehicleEF	UBUS	2.8180e-003	8.1000e-004
tblVehicleEF	UBUS	1.9400e-004	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	6.01	1.9930e-003
tblVehicleEF	UBUS	5.6600e-004	3.0130e-003
tblVehicleEF	UBUS	0.04	3.5490e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.2230e-003	8.7900e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.62	0.16
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.71	1.10
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3030e-003	1.4530e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.06	8.9550e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	4.0600e-004	3.3430e-003
tblVehicleEF	UBUS	2.9850e-003	8.4300e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.09	9.4160e-003
tblVehicleEF	UBUS	5.1800e-004	3.0040e-003
tblVehicleEF	UBUS	0.03	3.0230e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.6000e-005	1.1000e-005

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	4.0600e-004	3.3430e-003
tblVehicleEF	UBUS	2.9850e-003	8.4300e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	6.01	1.8590e-003
tblVehicleEF	UBUS	5.1800e-004	3.0040e-003
tblVehicleEF	UBUS	0.04	3.3100e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.9960e-003	9.5000e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.72	0.19
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.89	1.14
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.4730e-003	1.5000e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.4660e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	2.8600e-004	2.9090e-003
tblVehicleEF	UBUS	3.1520e-003	8.0500e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	0.09	9.4150e-003
tblVehicleEF	UBUS	6.7900e-004	3.1350e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	0.04	3.2930e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.8000e-005	1.1000e-005
tblVehicleEF	UBUS	2.8600e-004	2.9090e-003
tblVehicleEF	UBUS	3.1520e-003	8.0500e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	6.01	2.0250e-003
tblVehicleEF	UBUS	6.7900e-004	3.1350e-003
tblVehicleEF	UBUS	0.04	3.6060e-003
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.10
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	29.20
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	4.09	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	16.55
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	33.74
tblWoodstoves	NumberCatalytic	213.35	118.65
tblWoodstoves	NumberCatalytic	133.90	0.00
tblWoodstoves	NumberNoncatalytic	213.35	118.65
tblWoodstoves	NumberNoncatalytic	133.90	0.00

**2.0 Emissions Summary**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Highest

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	466.0298	6.0908	250.3809	0.2123		12.6401	12.6401		12.6401	12.6401	1,290.774 1	3,862.047 2	5,152.821 3	4.1437	0.1077	5,288.518 6
Energy	6.4081	57.0741	40.2711	0.3495		4.4274	4.4274		4.4274	4.4274	0.0000	141,622.3 570	141,622.3 570	18.3576	3.2405	143,046.9 629
Mobile	144.0764	93.3681	1,284.220 6	3.6256	418.1504	1.4636	419.6139	104.3747	1.3651	105.7397	0.0000	335,046.8 670	335,046.8 670	12.6680	11.8400	338,891.8 942
Waste						0.0000	0.0000		0.0000	0.0000	22,481.62 06	0.0000	22,481.62 06	1,328.625 7	0.0000	55,697.26 35
Water						0.0000	0.0000		0.0000	0.0000	5,705.813 6	17,382.79 55	23,088.60 90	589.8520	14.2996	42,096.17 93
<b>Total</b>	<b>616.5143</b>	<b>156.5331</b>	<b>1,574.872 5</b>	<b>4.1874</b>	<b>418.1504</b>	<b>18.5310</b>	<b>436.6814</b>	<b>104.3747</b>	<b>18.4325</b>	<b>122.8072</b>	<b>29,478.20 83</b>	<b>497,914.0 667</b>	<b>527,392.2 750</b>	<b>1,953.647 0</b>	<b>29.4878</b>	<b>585,020.8 185</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	466.0298	6.0908	250.3809	0.2123		12.6401	12.6401		12.6401	12.6401	1,290.774 1	3,862.047 2	5,152.821 3	4.1437	0.1077	5,288.518 6
Energy	6.4081	57.0741	40.2711	0.3495		4.4274	4.4274		4.4274	4.4274	0.0000	141,622.3 570	141,622.3 570	18.3576	3.2405	143,046.9 629
Mobile	144.0764	93.3681	1,284.220 6	3.6256	418.1504	1.4636	419.6139	104.3747	1.3651	105.7397	0.0000	335,046.8 670	335,046.8 670	12.6680	11.8400	338,891.8 942
Waste						0.0000	0.0000		0.0000	0.0000	22,481.62 06	0.0000	22,481.62 06	1,328.625 7	0.0000	55,697.26 35
Water						0.0000	0.0000		0.0000	0.0000	5,705.813 6	17,382.79 55	23,088.60 90	589.8520	14.2996	42,096.17 93
<b>Total</b>	<b>616.5143</b>	<b>156.5331</b>	<b>1,574.872 5</b>	<b>4.1874</b>	<b>418.1504</b>	<b>18.5310</b>	<b>436.6814</b>	<b>104.3747</b>	<b>18.4325</b>	<b>122.8072</b>	<b>29,478.20 83</b>	<b>497,914.0 667</b>	<b>527,392.2 750</b>	<b>1,953.647 0</b>	<b>29.4878</b>	<b>585,020.8 185</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	3/30/2021	3/29/2021	5	0	
2	Paving	Paving	5/15/2021	5/14/2021	5	0	
3	Demolition	Demolition	7/2/2021	7/1/2021	5	0	

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

4	Architectural Coating	Architectural Coating	7/14/2021	7/13/2021	5	0
5	Grading	Grading	10/30/2021	10/29/2021	5	0
6	Site Preparation	Site Preparation	10/31/2021	10/29/2021	5	0

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 49,708,080; Residential Outdoor: 16,569,360; Non-Residential Indoor: 119,360,700; Non-Residential Outdoor: 39,786,900; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Trips and VMT

### 3.1 Mitigation Measures Construction

### 3.2 Building Construction - 2021

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction Off-Site**

[illegible]

### Unmitigated Construction On-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### **Mitigated Construction On-Site**

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction Off-Site**

### Unmitigated Construction On-Site

[illegible]



**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction Off-Site

[illegible]

### **Mitigated Construction On-Site**

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction Off-Site**

[illegible]

### Unmitigated Construction On-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction Off-Site

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction Off-Site**

[illegible]

### Unmitigated Construction On-Site

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.7 Site Preparation - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	144.0764	93.3681	1,284.2206	3.6256	418.1504	1.4636	419.6139	104.3747	1.3651	105.7397	0.0000	335,046.8670	335,046.8670	12.6680	11.8400	338,891.8942
Unmitigated	144.0764	93.3681	1,284.2206	3.6256	418.1504	1.4636	419.6139	104.3747	1.3651	105.7397	0.0000	335,046.8670	335,046.8670	12.6680	11.8400	338,891.8942

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	329,943.46	285,546.80	161,842.45	1,210,449,901	1,210,449,901
Total	329,943.46	285,546.80	161,842.45	1,210,449,901	1,210,449,901

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.10	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Apartments Mid Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
City Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Elementary School	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Golf Course	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Government Office Building	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Hotel	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Industrial Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Office Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Regional Shopping Center	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Single Family Housing	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78,204.1238	78,204.1238	17.1421	2.0778	79,251.8669
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	78,204.1238	78,204.1238	17.1421	2.0778	79,251.8669
NaturalGas Mitigated	6.4081	57.0741	40.2711	0.3495		4.4274	4.4274		4.4274	4.4274	0.0000	63,418.2332	63,418.2332	1.2155	1.1627	63,795.0960
NaturalGas Unmitigated	6.4081	57.0741	40.2711	0.3495		4.4274	4.4274		4.4274	4.4274	0.0000	63,418.2332	63,418.2332	1.2155	1.1627	63,795.0960

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	6.77252e+007	0.3652	3.1207	1.3279	0.0199		0.2523	0.2523		0.2523	0.2523	0.0000	3,614.0737	3,614.0737	0.0693	0.0663	3,635.5504
Apartments Mid Rise	3.49923e+007	0.1887	1.6124	0.6861	0.0103		0.1304	0.1304		0.1304	0.1304	0.0000	1,867.3239	1,867.3239	0.0358	0.0342	1,878.4205
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.34492e+007	0.0725	0.6593	0.5538	3.9600e-003		0.0501	0.0501		0.0501	0.0501	0.0000	717.6979	717.6979	0.0138	0.0132	721.9628
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.30844e+007	0.0706	0.6414	0.5388	3.8500e-003		0.0488	0.0488		0.0488	0.0488	0.0000	698.2342	698.2342	0.0134	0.0128	702.3834
Hotel	1.38019e+007	0.0744	0.6766	0.5683	4.0600e-003		0.0514	0.0514		0.0514	0.0514	0.0000	736.5226	736.5226	0.0141	0.0135	740.8994
Industrial Park	7.01917e+008	3.7849	34.4077	28.9025	0.2065		2.6150	2.6150		2.6150	2.6150	0.0000	37,456.9777	37,456.9777	0.7179	0.6867	37,679.5658
Office Park	3.50513e+007	0.1890	1.7182	1.4433	0.0103		0.1306	0.1306		0.1306	0.1306	0.0000	1,870.4729	1,870.4729	0.0359	0.0343	1,881.5882
Regional Shopping Center	9.43312e+006	0.0509	0.4624	0.3884	2.7700e-003		0.0351	0.0351		0.0351	0.0351	0.0000	503.3870	503.3870	9.6500e-003	9.2300e-003	506.3784
Single Family Housing	2.98958e+008	1.6120	13.7755	5.8619	0.0879		1.1138	1.1138		1.1138	1.1138	0.0000	15,953.5434	15,953.5434	0.3058	0.2925	16,048.3473
<b>Total</b>		<b>6.4081</b>	<b>57.0741</b>	<b>40.2710</b>	<b>0.3495</b>		<b>4.4274</b>	<b>4.4274</b>		<b>4.4274</b>	<b>4.4274</b>	<b>0.0000</b>	<b>63,418.2332</b>	<b>63,418.2332</b>	<b>1.2155</b>	<b>1.1627</b>	<b>63,795.0960</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	6.77252e+007	0.3652	3.1207	1.3279	0.0199		0.2523	0.2523		0.2523	0.2523	0.0000	3,614.0737	3,614.0737	0.0693	0.0663	3,635.5504
Apartments Mid Rise	3.49923e+007	0.1887	1.6124	0.6861	0.0103		0.1304	0.1304		0.1304	0.1304	0.0000	1,867.3239	1,867.3239	0.0358	0.0342	1,878.4205
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.34492e+007	0.0725	0.6593	0.5538	3.9600e-003		0.0501	0.0501		0.0501	0.0501	0.0000	717.6979	717.6979	0.0138	0.0132	721.9628
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.30844e+007	0.0706	0.6414	0.5388	3.8500e-003		0.0488	0.0488		0.0488	0.0488	0.0000	698.2342	698.2342	0.0134	0.0128	702.3834
Hotel	1.38019e+007	0.0744	0.6766	0.5683	4.0600e-003		0.0514	0.0514		0.0514	0.0514	0.0000	736.5226	736.5226	0.0141	0.0135	740.8994
Industrial Park	7.01917e+008	3.7849	34.4077	28.9025	0.2065		2.6150	2.6150		2.6150	2.6150	0.0000	37,456.9777	37,456.9777	0.7179	0.6867	37,679.5658
Office Park	3.50513e+007	0.1890	1.7182	1.4433	0.0103		0.1306	0.1306		0.1306	0.1306	0.0000	1,870.4729	1,870.4729	0.0359	0.0343	1,881.5882
Regional Shopping Center	9.43312e+006	0.0509	0.4624	0.3884	2.7700e-003		0.0351	0.0351		0.0351	0.0351	0.0000	503.3870	503.3870	9.6500e-003	9.2300e-003	506.3784
Single Family Housing	2.98958e+008	1.6120	13.7755	5.8619	0.0879		1.1138	1.1138		1.1138	1.1138	0.0000	15,953.5434	15,953.5434	0.3058	0.2925	16,048.3473
<b>Total</b>		<b>6.4081</b>	<b>57.0741</b>	<b>40.2710</b>	<b>0.3495</b>		<b>4.4274</b>	<b>4.4274</b>		<b>4.4274</b>	<b>4.4274</b>	<b>0.0000</b>	<b>63,418.2332</b>	<b>63,418.2332</b>	<b>1.2155</b>	<b>1.1627</b>	<b>63,795.0960</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.72298e+007	1,176.5946	0.2579	0.0313	1,192.3581
Apartments Mid Rise	1.03086e+007	703.9543	0.1543	0.0187	713.3856
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	7.73487e+006	528.2014	0.1158	0.0140	535.2780
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.65244e+007	1,128.4230	0.2474	0.0300	1,143.5410
Hotel	4.24272e+006	289.7285	0.0635	7.7000e-003	293.6102
Industrial Park	8.86456e+008	60,534.5825	13.2690	1.6084	61,345.5971
Office Park	4.95901e+007	3,386.4242	0.7423	0.0900	3,431.7940
Regional Shopping Center	7.61552e+007	5,200.5085	1.1399	0.1382	5,270.1826
Single Family Housing	7.69635e+007	5,255.7068	1.1520	0.1396	5,326.1204
<b>Total</b>		<b>78,204.1238</b>	<b>17.1421</b>	<b>2.0778</b>	<b>79,251.8669</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.72298e+007	1,176.5946	0.2579	0.0313	1,192.3581
Apartments Mid Rise	1.03086e+007	703.9543	0.1543	0.0187	713.3856
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	7.73487e+006	528.2014	0.1158	0.0140	535.2780
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Government Office Building	1.65244e+007	1,128.4230	0.2474	0.0300	1,143.5410
Hotel	4.24272e+006	289.7285	0.0635	7.7000e-003	293.6102
Industrial Park	8.86456e+008	60,534.5825	13.2690	1.6084	61,345.5971
Office Park	4.95901e+007	3,386.4242	0.7423	0.0900	3,431.7940
Regional Shopping Center	7.61552e+007	5,200.5085	1.1399	0.1382	5,270.1826
Single Family Housing	7.69635e+007	5,255.7068	1.1520	0.1396	5,326.1204
<b>Total</b>		<b>78,204.1238</b>	<b>17.1421</b>	<b>2.0778</b>	<b>79,251.8669</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	466.0298	6.0908	250.3809	0.2123		12.6401	12.6401		12.6401	12.6401	1,290.774 1	3,862.047 2	5,152.821 3	4.1437	0.1077	5,288.518 6
Unmitigated	466.0298	6.0908	250.3809	0.2123		12.6401	12.6401		12.6401	12.6401	1,290.774 1	3,862.047 2	5,152.821 3	4.1437	0.1077	5,288.518 6

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	44.5624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	376.3244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	39.9142	4.0997	77.6524	0.2031		11.6800	11.6800		11.6800	11.6800	1,290.774 1	3,578.331 5	4,869.105 6	3.8704	0.1077	4,997.970 7
Landscaping	5.2288	1.9911	172.7285	9.1800e-003		0.9600	0.9600		0.9600	0.9600	0.0000	283.7157	283.7157	0.2733	0.0000	290.5478
<b>Total</b>	<b>466.0298</b>	<b>6.0908</b>	<b>250.3809</b>	<b>0.2123</b>		<b>12.6401</b>	<b>12.6401</b>		<b>12.6401</b>	<b>12.6401</b>	<b>1,290.774 1</b>	<b>3,862.047 2</b>	<b>5,152.821 3</b>	<b>4.1437</b>	<b>0.1077</b>	<b>5,288.518 6</b>



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	44.5624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	376.3244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	39.9142	4.0997	77.6524	0.2031		11.6800	11.6800		11.6800	11.6800	1,290.774 1	3,578.331 5	4,869.105 6	3.8704	0.1077	4,997.970 7
Landscaping	5.2288	1.9911	172.7285	9.1800e-003		0.9600	0.9600		0.9600	0.9600	0.0000	283.7157	283.7157	0.2733	0.0000	290.5478
<b>Total</b>	<b>466.0298</b>	<b>6.0908</b>	<b>250.3809</b>	<b>0.2123</b>		<b>12.6401</b>	<b>12.6401</b>		<b>12.6401</b>	<b>12.6401</b>	<b>1,290.774 1</b>	<b>3,862.047 2</b>	<b>5,152.821 3</b>	<b>4.1437</b>	<b>0.1077</b>	<b>5,288.518 6</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23,088.6090	589.8520	14.2996	42,096.1793
Unmitigated	23,088.6090	589.8520	14.2996	42,096.1793

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	278.012 / 175.269	468.3774	9.1424	0.2240	763.6898
Apartments Mid Rise	174.482 / 110	293.9570	5.7378	0.1406	479.2973
City Park	0 / 126.893	96.2714	0.0211	2.5600e-003	97.5612
Elementary School	37.319 / 95.9632	117.8287	1.2393	0.0315	158.2063
Golf Course	0 / 115.097	87.3223	0.0191	2.3200e-003	88.4922
Government Office Building	248.503 / 152.309	415.3575	8.1713	0.2001	679.2805
Hotel	25.8741 / 2.8749	33.3966	0.8486	0.0206	60.7442
Industrial Park	15518 / 0	18,721.4872	508.6791	12.3062	35,105.7144
Office Park	639.61 / 392.019	1,069.0677	21.0316	0.5151	1,748.3661
Regional Shopping Center	426.058 / 261.132	712.1281	14.0096	0.3431	1,164.6228
Single Family Housing	637.141 / 401.676	1,073.4151	20.9522	0.5134	1,750.2046
<b>Total</b>		<b>23,088.6090</b>	<b>589.8520</b>	<b>14.2996</b>	<b>42,096.1793</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	278.012 / 175.269	468.3774	9.1424	0.2240	763.6898
Apartments Mid Rise	174.482 / 110	293.9570	5.7378	0.1406	479.2973
City Park	0 / 126.893	96.2714	0.0211	2.5600e-003	97.5612
Elementary School	37.319 / 95.9632	117.8287	1.2393	0.0315	158.2063
Golf Course	0 / 115.097	87.3223	0.0191	2.3200e-003	88.4922
Government Office Building	248.503 / 152.309	415.3575	8.1713	0.2001	679.2805
Hotel	25.8741 / 2.8749	33.3966	0.8486	0.0206	60.7442
Industrial Park	15518 / 0	18,721.4872	508.6791	12.3062	35,105.7144
Office Park	639.61 / 392.019	1,069.0677	21.0316	0.5151	1,748.3661
Regional Shopping Center	426.058 / 261.132	712.1281	14.0096	0.3431	1,164.6228
Single Family Housing	637.141 / 401.676	1,073.4151	20.9522	0.5134	1,750.2046
<b>Total</b>		<b>23,088.6090</b>	<b>589.8520</b>	<b>14.2996</b>	<b>42,096.1793</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22,481.62 06	1,328.625 7	0.0000	55,697.26 35
Unmitigated	22,481.62 06	1,328.625 7	0.0000	55,697.26 35

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1962.82	398.4347	23.5468	0.0000	987.1052
Apartments Mid Rise	1231.88	250.0605	14.7782	0.0000	619.5143
City Park	9.16	1.8594	0.1099	0.0000	4.6066
Elementary School	1673.1	339.6242	20.0712	0.0000	841.4045
Golf Course	89.84	18.2367	1.0778	0.0000	45.1807
Government Office Building	1163.34	236.1475	13.9559	0.0000	585.0455
Hotel	558.45	113.3603	6.6994	0.0000	280.8454
Industrial Park	83210.1	16,890.89 43	998.2233	0.0000	41,846.47 56
Office Park	3346.79	679.3681	40.1495	0.0000	1,683.105 8
Regional Shopping Center	6039.49	1,225.961 9	72.4523	0.0000	3,037.268 7
Single Family Housing	11466.9	2,327.673 0	137.5615	0.0000	5,766.711 4
<b>Total</b>		<b>22,481.62 06</b>	<b>1,328.625 7</b>	<b>0.0000</b>	<b>55,697.26 35</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1962.82	398.4347	23.5468	0.0000	987.1052
Apartments Mid Rise	1231.88	250.0605	14.7782	0.0000	619.5143
City Park	9.16	1.8594	0.1099	0.0000	4.6066
Elementary School	1673.1	339.6242	20.0712	0.0000	841.4045
Golf Course	89.84	18.2367	1.0778	0.0000	45.1807
Government Office Building	1163.34	236.1475	13.9559	0.0000	585.0455
Hotel	558.45	113.3603	6.6994	0.0000	280.8454
Industrial Park	83210.1	16,890.89 43	998.2233	0.0000	41,846.47 56
Office Park	3346.79	679.3681	40.1495	0.0000	1,683.105 8
Regional Shopping Center	6039.49	1,225.961 9	72.4523	0.0000	3,037.268 7
Single Family Housing	11466.9	2,327.673 0	137.5615	0.0000	5,766.711 4
<b>Total</b>		<b>22,481.62 06</b>	<b>1,328.625 7</b>	<b>0.0000</b>	<b>55,697.26 35</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Proposed GPU; 2040)****Los Angeles-South Coast County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,250.90	1000sqft	69.30	1,250,900.00	0
Office Park	3,598.70	1000sqft	178.50	3,598,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,104.90	1000sqft	3,183.10	67,104,900.00	0
City Park	106.50	Acre	106.50	4,639,140.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	1,020.00	Room	15.30	580,400.00	0
Apartments Low Rise	4,267.00	Dwelling Unit	364.20	4,267,000.00	12204
Apartments Mid Rise	2,678.00	Dwelling Unit	53.50	2,678,000.00	7659
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	27968
Regional Shopping Center	5,751.90	1000sqft	453.60	5,751,900.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	150.55	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE GHG intensity factor for CO2 updated to reflect estimated SCE 2040 energy mix.

Land Use - Source: EIR PD; Tables 3-2 and 3-3. Open / vacant / ROW space not modeled.

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Construction Phase - Future operational model run - no construction emissions modeled.

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Energy Use - Assumes low- and med-apt and hotel built to 2019 T24 Code. Ele schl, govt off, and ind prk remain at 2013 T24 Code. Remaining see minor imprs to avg 2016 T24 Code standards. Factors obtained from CMod v2020.4.0; adj CMod Apdx Tbl 1, 3, 4

Woodstoves - Wood burning devices excluded from new dev pursuant to SCAQMD Rule 445. Modeling assumes existing dev that remains has stoves/hearths per default values.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.25
tblEnergyUse	T24E	3.58	3.75
tblEnergyUse	T24E	93.13	105.47
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.55
tblEnergyUse	T24NG	1.14	1.15
tblEnergyUse	T24NG	19,108.08	24,187.44
tblFireplaces	NumberGas	3,626.95	3,911.05

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblFireplaces	NumberGas	2,276.30	2,678.00
tblFireplaces	NumberNoFireplace	426.70	237.30
tblFireplaces	NumberNoFireplace	267.80	0.00
tblFireplaces	NumberWood	213.35	118.65
tblFireplaces	NumberWood	133.90	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	1,481,040.00	580,400.00
tblLandUse	LotAcreage	28.72	69.30
tblLandUse	LotAcreage	82.61	178.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,540.52	3,183.10
tblLandUse	LotAcreage	34.00	15.30
tblLandUse	LotAcreage	266.69	364.20
tblLandUse	LotAcreage	70.47	53.50
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	132.05	453.60
tblProjectCharacteristics	CO2IntensityFactor	390.98	150.55
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.07	4.65
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.8520e-003	8.3200e-004
tblVehicleEF	HHD	921.34	605.94
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0580e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	5.71	3.51
tblVehicleEF	HHD	2.38	1.05
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.1440e-003	1.4260e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0520e-003	1.3590e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	9.6000e-005	3.0000e-006
tblVehicleEF	HHD	0.47	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	3.6000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.5060e-003	5.3340e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	9.6000e-005	3.0000e-006
tblVehicleEF	HHD	0.54	0.43
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.6000e-005	3.1000e-005

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	6.98	4.60
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.4030e-003	7.9100e-004
tblVehicleEF	HHD	909.55	598.69
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	7.9920e-003
tblVehicleEF	HHD	0.14	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006
tblVehicleEF	HHD	5.43	3.34
tblVehicleEF	HHD	2.25	0.99
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	1.9010e-003	1.2810e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	1.8180e-003	1.2200e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	4.0000e-006	1.7000e-005
tblVehicleEF	HHD	9.8000e-005	3.0000e-006
tblVehicleEF	HHD	0.50	0.31
tblVehicleEF	HHD	3.0000e-006	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.02	9.1090e-003
tblVehicleEF	HHD	3.5000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.3970e-003	5.2650e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	4.0000e-006	1.7000e-005
tblVehicleEF	HHD	9.8000e-005	3.0000e-006
tblVehicleEF	HHD	0.57	0.45
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.5000e-005	3.1000e-005
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.20	4.73
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.9350e-003	8.4100e-004
tblVehicleEF	HHD	937.61	615.95
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0720e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006
tblVehicleEF	HHD	6.10	3.74
tblVehicleEF	HHD	2.34	1.03
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.4810e-003	1.6260e-003
tblVehicleEF	HHD	0.06	0.08

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.3740e-003	1.5500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	1.0000e-004	3.0000e-006
tblVehicleEF	HHD	0.43	0.27
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	4.0000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.6570e-003	5.4290e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	1.0000e-004	3.0000e-006
tblVehicleEF	HHD	0.50	0.40
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	4.0000e-005	3.1000e-005
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	7.7700e-004	1.0540e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.40	0.45
tblVehicleEF	LDA	1.31	1.44

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	193.73	213.20
tblVehicleEF	LDA	36.79	50.59
tblVehicleEF	LDA	3.0690e-003	2.7950e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.3020e-003	3.2140e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.9160e-003	2.1080e-003
tblVehicleEF	LDA	3.6400e-004	5.0000e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3330e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDA	8.3600e-004	1.0920e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.45	0.53



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	1.12	1.24
tblVehicleEF	LDA	202.55	222.82
tblVehicleEF	LDA	36.47	50.22
tblVehicleEF	LDA	2.8150e-003	2.4740e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.10	0.13
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	2.4490e-003	3.2940e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	2.0040e-003	2.2030e-003
tblVehicleEF	LDA	3.6100e-004	4.9600e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.5480e-003	0.12
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	7.5900e-004	1.0450e-003
tblVehicleEF	LDA	0.02	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.39	0.42
tblVehicleEF	LDA	1.35	1.49
tblVehicleEF	LDA	190.51	209.66
tblVehicleEF	LDA	36.86	50.67
tblVehicleEF	LDA	2.9890e-003	2.7420e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.14
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.2540e-003	3.1910e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.8840e-003	2.0730e-003
tblVehicleEF	LDA	3.6500e-004	5.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.2640e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDT1	1.0250e-003	1.7810e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.45	0.62
tblVehicleEF	LDT1	1.41	1.85
tblVehicleEF	LDT1	233.12	279.27
tblVehicleEF	LDT1	44.79	65.96
tblVehicleEF	LDT1	3.1660e-003	3.8840e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.2080e-003	6.1650e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.3070e-003	2.7610e-003
tblVehicleEF	LDT1	4.4300e-004	6.5200e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.6800e-003	0.18
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.09	0.18

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	1.0990e-003	1.8420e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.49	0.73
tblVehicleEF	LDT1	1.21	1.59
tblVehicleEF	LDT1	241.99	290.25
tblVehicleEF	LDT1	44.44	65.47
tblVehicleEF	LDT1	2.8730e-003	3.4380e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.11	0.18
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	3.4100e-003	6.3180e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.3950e-003	2.8690e-003
tblVehicleEF	LDT1	4.4000e-004	6.4700e-004
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	4.9750e-003	0.16
tblVehicleEF	LDT1	0.03	0.25

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	1.0020e-003	1.7650e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.43	0.58
tblVehicleEF	LDT1	1.46	1.91
tblVehicleEF	LDT1	229.86	275.22
tblVehicleEF	LDT1	44.86	66.07
tblVehicleEF	LDT1	3.0770e-003	3.8110e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.1420e-003	6.1210e-003
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.2750e-003	2.7210e-003
tblVehicleEF	LDT1	4.4400e-004	6.5300e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.5840e-003	0.19

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT2	1.2370e-003	1.6380e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.50	0.60
tblVehicleEF	LDT2	1.76	1.96
tblVehicleEF	LDT2	231.46	291.91
tblVehicleEF	LDT2	44.41	68.52
tblVehicleEF	LDT2	3.3840e-003	3.7140e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.19
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.1090e-003	5.3200e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2890e-003	2.8850e-003
tblVehicleEF	LDT2	4.3900e-004	6.7700e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	5.9260e-003	0.18
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	1.3260e-003	1.6950e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.55	0.71
tblVehicleEF	LDT2	1.50	1.68
tblVehicleEF	LDT2	239.44	302.38
tblVehicleEF	LDT2	43.97	68.01
tblVehicleEF	LDT2	3.1020e-003	3.3030e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	4.3550e-003	5.4500e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.15
tblVehicleEF	LDT2	2.3680e-003	2.9890e-003
tblVehicleEF	LDT2	4.3500e-004	6.7200e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2850e-003	0.16
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	1.2100e-003	1.6230e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.49	0.57
tblVehicleEF	LDT2	1.81	2.03
tblVehicleEF	LDT2	228.53	288.06
tblVehicleEF	LDT2	44.51	68.64
tblVehicleEF	LDT2	3.2980e-003	3.6460e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.0290e-003	5.2830e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2600e-003	2.8470e-003
tblVehicleEF	LDT2	4.4000e-004	6.7900e-004
tblVehicleEF	LDT2	0.03	0.21



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.8090e-003	0.19
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.19
tblVehicleEF	LHD1	3.2430e-003	2.6460e-003
tblVehicleEF	LHD1	1.6140e-003	7.9600e-004
tblVehicleEF	LHD1	5.2840e-003	9.0100e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.69	1.37
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.07	10.37
tblVehicleEF	LHD1	7.4400e-004	4.5000e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4320e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	8.0000e-005	1.0300e-004
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4320e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	3.2500e-003	2.6550e-003
tblVehicleEF	LHD1	1.6270e-003	1.2750e-003
tblVehicleEF	LHD1	5.1050e-003	8.7190e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.22
tblVehicleEF	LHD1	0.66	1.32
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.98
tblVehicleEF	LHD1	8.02	10.27
tblVehicleEF	LHD1	7.4600e-004	4.5100e-004
tblVehicleEF	LHD1	0.03	0.02

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003
tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7250e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	7.9000e-005	1.0200e-004
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7250e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.03	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	3.2420e-003	2.6440e-003
tblVehicleEF	LHD1	1.6110e-003	1.2650e-003
tblVehicleEF	LHD1	5.3210e-003	9.0740e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.70	1.38
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.08	10.39
tblVehicleEF	LHD1	7.4400e-004	4.5000e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003
tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3910e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	8.0000e-005	1.0300e-004
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3910e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD2	2.1740e-003	1.4470e-003
tblVehicleEF	LHD2	1.8050e-003	1.3180e-003
tblVehicleEF	LHD2	3.1420e-003	4.4150e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1140e-003	8.4490e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6230e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.4000e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6230e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1790e-003	1.4520e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	1.8120e-003	1.3210e-003
tblVehicleEF	LHD2	3.0360e-003	4.2730e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.41	0.72
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.39
tblVehicleEF	LHD2	5.72	5.45
tblVehicleEF	LHD2	1.5380e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	8.8900e-003	8.2280e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7870e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.03	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.4000e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7870e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1740e-003	1.4460e-003
tblVehicleEF	LHD2	1.8030e-003	1.3180e-003
tblVehicleEF	LHD2	3.1640e-003	4.4470e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.64	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1920e-003	8.5170e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6010e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.5000e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6010e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.22	0.13
tblVehicleEF	MCY	17.74	10.66
tblVehicleEF	MCY	8.79	7.19

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	224.86	192.79
tblVehicleEF	MCY	56.76	36.74
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.01	4.6950e-003
tblVehicleEF	MCY	1.13	0.47
tblVehicleEF	MCY	0.26	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.56	0.91
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.74	0.90
tblVehicleEF	MCY	2.2250e-003	1.9060e-003
tblVehicleEF	MCY	5.6200e-004	3.6300e-004
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.22	0.98
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.89	0.98
tblVehicleEF	MCY	0.37	0.15
tblVehicleEF	MCY	0.20	0.12
tblVehicleEF	MCY	17.16	10.82

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	7.93	6.41
tblVehicleEF	MCY	223.77	193.09
tblVehicleEF	MCY	54.79	35.24
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.01	4.6360e-003
tblVehicleEF	MCY	0.99	0.42
tblVehicleEF	MCY	0.25	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	2.52	0.93
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.55	0.82
tblVehicleEF	MCY	2.2140e-003	1.9090e-003
tblVehicleEF	MCY	5.4200e-004	3.4800e-004
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	3.16	0.89
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.69	0.89
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.23	0.13

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	17.83	10.62
tblVehicleEF	MCY	8.95	7.36
tblVehicleEF	MCY	225.03	192.71
tblVehicleEF	MCY	57.13	37.06
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.02	4.7790e-003
tblVehicleEF	MCY	1.10	0.46
tblVehicleEF	MCY	0.27	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	2.57	0.91
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.77	0.92
tblVehicleEF	MCY	2.2270e-003	1.9050e-003
tblVehicleEF	MCY	5.6500e-004	3.6600e-004
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	3.23	1.00
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.93	1.00
tblVehicleEF	MDV	1.3150e-003	1.7670e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.51	0.62
tblVehicleEF	MDV	1.76	1.97
tblVehicleEF	MDV	281.64	348.15
tblVehicleEF	MDV	52.74	81.40
tblVehicleEF	MDV	4.6520e-003	4.3400e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	4.4900e-003	5.9520e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.18
tblVehicleEF	MDV	2.7830e-003	3.4400e-003
tblVehicleEF	MDV	5.2200e-004	8.0500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.4680e-003	0.20
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.11	0.19

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	1.4100e-003	1.8300e-003
tblVehicleEF	MDV	0.02	0.04
tblVehicleEF	MDV	0.56	0.73
tblVehicleEF	MDV	1.50	1.68
tblVehicleEF	MDV	289.51	358.45
tblVehicleEF	MDV	52.30	80.88
tblVehicleEF	MDV	4.3600e-003	3.9070e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	4.7590e-003	6.0990e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.16
tblVehicleEF	MDV	2.8610e-003	3.5420e-003
tblVehicleEF	MDV	5.1800e-004	8.0000e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	6.8600e-003	0.18
tblVehicleEF	MDV	0.03	0.17

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2860e-003	1.7510e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.49	0.58
tblVehicleEF	MDV	1.81	2.03
tblVehicleEF	MDV	278.75	344.36
tblVehicleEF	MDV	52.84	81.52
tblVehicleEF	MDV	4.5620e-003	4.2680e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	4.4030e-003	5.9110e-003
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	2.7540e-003	3.4030e-003
tblVehicleEF	MDV	5.2300e-004	8.0600e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	6.3410e-003	0.20

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MH	3.1420e-003	2.7950e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.44	1.58
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.93	18.96
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.79
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8700e-004
tblVehicleEF	MH	0.25	11.73



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1910e-003	2.8370e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	1.36	1.50
tblVehicleEF	MH	1,200.60	1,515.03
tblVehicleEF	MH	13.79	18.81
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.74
tblVehicleEF	MH	0.21	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.06	0.07

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3600e-004	1.8600e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1280e-003	2.7840e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.45	1.60
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.95	18.99
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.72	0.77
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8800e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MHD	3.8760e-003	0.02
tblVehicleEF	MHD	6.9300e-004	6.2950e-003
tblVehicleEF	MHD	8.2770e-003	4.9520e-003
tblVehicleEF	MHD	0.38	0.43
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.45
tblVehicleEF	MHD	51.29	87.39
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.00	5.00
tblVehicleEF	MHD	7.2440e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.2400e-003	3.6900e-003
tblVehicleEF	MHD	0.26	0.43
tblVehicleEF	MHD	1.06	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	7.2000e-005	1.5100e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	6.9000e-005	1.4400e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3600e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	7.8910e-003	4.0270e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8700e-004	7.8500e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3600e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	9.4490e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	3.6860e-003	0.02
tblVehicleEF	MHD	7.0400e-004	6.3020e-003
tblVehicleEF	MHD	7.9900e-003	4.7820e-003
tblVehicleEF	MHD	0.32	0.40
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.72	0.43
tblVehicleEF	MHD	50.88	86.40

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	829.72	640.27
tblVehicleEF	MHD	7.94	4.96
tblVehicleEF	MHD	7.1500e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.0650e-003	3.6080e-003
tblVehicleEF	MHD	0.25	0.41
tblVehicleEF	MHD	1.00	0.16
tblVehicleEF	MHD	1.67	0.68
tblVehicleEF	MHD	6.3000e-005	1.3600e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003
tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	6.1000e-005	1.2900e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4300e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	7.9230e-003	4.0490e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8300e-004	7.7500e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4300e-003
tblVehicleEF	MHD	0.02	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	9.4960e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.1520e-003	0.02
tblVehicleEF	MHD	6.8900e-004	6.2920e-003
tblVehicleEF	MHD	8.3190e-003	4.9800e-003
tblVehicleEF	MHD	0.46	0.48
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.46
tblVehicleEF	MHD	51.85	88.76
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.01	5.01
tblVehicleEF	MHD	7.3770e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.3310e-003	3.7300e-003
tblVehicleEF	MHD	0.28	0.46
tblVehicleEF	MHD	1.04	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	8.3000e-005	1.7300e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003
tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	8.0000e-005	1.6500e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3510e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	7.8820e-003	4.0200e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.9200e-004	7.9700e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3510e-003
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	9.4360e-003	0.02
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	OBUS	7.8260e-003	0.02
tblVehicleEF	OBUS	1.5290e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.68	0.69
tblVehicleEF	OBUS	0.19	0.38
tblVehicleEF	OBUS	1.59	1.52
tblVehicleEF	OBUS	88.67	93.17
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.03	13.19
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.43	0.24
tblVehicleEF	OBUS	1.14	0.65

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.4500e-004	2.5400e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.3800e-004	2.4200e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.4200e-004	8.3200e-004
tblVehicleEF	OBUS	0.01	9.8860e-003
tblVehicleEF	OBUS	1.3900e-004	1.3000e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	7.9300e-003	0.02
tblVehicleEF	OBUS	1.5580e-003	0.05
tblVehicleEF	OBUS	0.02	0.01



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.67	0.68
tblVehicleEF	OBUS	0.19	0.39
tblVehicleEF	OBUS	1.51	1.44
tblVehicleEF	OBUS	87.61	92.17
tblVehicleEF	OBUS	1,066.30	1,094.48
tblVehicleEF	OBUS	13.88	13.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.41	0.23
tblVehicleEF	OBUS	1.07	0.61
tblVehicleEF	OBUS	0.97	0.53
tblVehicleEF	OBUS	1.2900e-004	2.2500e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.2300e-004	2.1400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.3200e-004	8.2300e-004
tblVehicleEF	OBUS	0.01	9.8860e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1.3700e-004	1.2900e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	7.7040e-003	0.02
tblVehicleEF	OBUS	1.5210e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.70
tblVehicleEF	OBUS	0.18	0.38
tblVehicleEF	OBUS	1.61	1.54
tblVehicleEF	OBUS	90.13	94.55
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.06	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.26
tblVehicleEF	OBUS	1.12	0.63
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.6700e-004	2.9400e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.6000e-004	2.8000e-004
tblVehicleEF	OBUS	0.06	0.02

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.5600e-004	8.4500e-004
tblVehicleEF	OBUS	0.01	9.8860e-003
tblVehicleEF	OBUS	1.3900e-004	1.3100e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6680e-003	1.02
tblVehicleEF	SBUS	9.4040e-003	6.1470e-003
tblVehicleEF	SBUS	4.65	3.01
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.19	0.71
tblVehicleEF	SBUS	307.82	222.75
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.46	4.86
tblVehicleEF	SBUS	0.04	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.5500e-003	6.7460e-003
tblVehicleEF	SBUS	1.21	0.32
tblVehicleEF	SBUS	1.21	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.2200e-004	5.9000e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	3.0800e-004	5.4400e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.1330e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9550e-003	7.8200e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.4000e-005	4.8000e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.1330e-003	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6950e-003	1.02
tblVehicleEF	SBUS	8.3730e-003	5.4880e-003
tblVehicleEF	SBUS	4.64	3.01
tblVehicleEF	SBUS	0.18	3.32
tblVehicleEF	SBUS	0.97	0.58
tblVehicleEF	SBUS	305.56	222.60
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.09	4.64
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.3010e-003	6.5810e-003
tblVehicleEF	SBUS	1.16	0.32
tblVehicleEF	SBUS	1.14	0.26
tblVehicleEF	SBUS	1.76	0.17
tblVehicleEF	SBUS	2.8400e-004	5.8400e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	2.7100e-004	5.3900e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	2.7120e-003	0.10

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9330e-003	7.8100e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.0000e-005	4.6000e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.13
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6600e-003	1.02
tblVehicleEF	SBUS	9.6290e-003	6.2970e-003
tblVehicleEF	SBUS	4.67	3.02
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.23	0.73
tblVehicleEF	SBUS	310.93	222.95
tblVehicleEF	SBUS	851.47	827.15
tblVehicleEF	SBUS	7.53	4.90
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.7130e-003	6.8690e-003
tblVehicleEF	SBUS	1.28	0.33

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	1.19	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.7500e-004	5.9900e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	3.5800e-004	5.5200e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	2.9840e-003	7.8400e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.5000e-005	4.8000e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.8560e-003	9.3600e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.70	0.18
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.86	1.13
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3720e-003	1.4830e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.3720e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	2.7200e-004	2.9290e-003
tblVehicleEF	UBUS	2.8180e-003	8.1000e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	0.09	9.4150e-003
tblVehicleEF	UBUS	5.6600e-004	3.0130e-003
tblVehicleEF	UBUS	0.04	3.2410e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.8000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7200e-004	2.9290e-003
tblVehicleEF	UBUS	2.8180e-003	8.1000e-004
tblVehicleEF	UBUS	1.9400e-004	0.00



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	6.01	1.9930e-003
tblVehicleEF	UBUS	5.6600e-004	3.0130e-003
tblVehicleEF	UBUS	0.04	3.5490e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.2230e-003	8.7900e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.62	0.16
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.71	1.10
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3030e-003	1.4530e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.06	8.9550e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	4.0600e-004	3.3430e-003
tblVehicleEF	UBUS	2.9850e-003	8.4300e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.09	9.4160e-003
tblVehicleEF	UBUS	5.1800e-004	3.0040e-003
tblVehicleEF	UBUS	0.03	3.0230e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.6000e-005	1.1000e-005

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	4.0600e-004	3.3430e-003
tblVehicleEF	UBUS	2.9850e-003	8.4300e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	6.01	1.8590e-003
tblVehicleEF	UBUS	5.1800e-004	3.0040e-003
tblVehicleEF	UBUS	0.04	3.3100e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.9960e-003	9.5000e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.72	0.19
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.89	1.14
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.4730e-003	1.5000e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.4660e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	2.8600e-004	2.9090e-003
tblVehicleEF	UBUS	3.1520e-003	8.0500e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	0.09	9.4150e-003
tblVehicleEF	UBUS	6.7900e-004	3.1350e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	0.04	3.2930e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.8000e-005	1.1000e-005
tblVehicleEF	UBUS	2.8600e-004	2.9090e-003
tblVehicleEF	UBUS	3.1520e-003	8.0500e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	6.01	2.0250e-003
tblVehicleEF	UBUS	6.7900e-004	3.1350e-003
tblVehicleEF	UBUS	0.04	3.6060e-003
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.10
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	29.20
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	4.09	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	16.55
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	33.74
tblWoodstoves	NumberCatalytic	213.35	118.65
tblWoodstoves	NumberCatalytic	133.90	0.00
tblWoodstoves	NumberNoncatalytic	213.35	118.65
tblWoodstoves	NumberNoncatalytic	133.90	0.00

**2.0 Emissions Summary**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction

[illegible]

### Mitigated Construction

[illegible][illegible]

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,541.1960	343.9041	7,594.0227	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7924	318,056.7678	431,883.5602	343.7191	9.5008	443,307.7672
Energy	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0589	383,050.0589	7.3418	7.0226	385,326.3339
Mobile	882.6255	511.1204	8,311.7150	22.6911	2,585.0578	8.8659	2,593.9237	645.0297	8.2692	653.2989		2,310,930.8467	2,310,930.8467	83.1754	74.9152	2,335,334.9511
<b>Total</b>	<b>6,458.9344</b>	<b>1,167.7595</b>	<b>16,126.4009</b>	<b>40.9295</b>	<b>2,585.0578</b>	<b>975.2088</b>	<b>3,560.2666</b>	<b>645.0297</b>	<b>974.6121</b>	<b>1,619.6418</b>	<b>113,826.7924</b>	<b>3,012,037.6734</b>	<b>3,125,864.4658</b>	<b>434.2363</b>	<b>91.4385</b>	<b>3,163,969.0522</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,541.1960	343.9041	7,594.0227	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7924	318,056.7678	431,883.5602	343.7191	9.5008	443,307.7672
Energy	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0589	383,050.0589	7.3418	7.0226	385,326.3339
Mobile	882.6255	511.1204	8,311.7150	22.6911	2,585.0578	8.8659	2,593.9237	645.0297	8.2692	653.2989		2,310,930.8467	2,310,930.8467	83.1754	74.9152	2,335,334.9511
<b>Total</b>	<b>6,458.9344</b>	<b>1,167.7595</b>	<b>16,126.4009</b>	<b>40.9295</b>	<b>2,585.0578</b>	<b>975.2088</b>	<b>3,560.2666</b>	<b>645.0297</b>	<b>974.6121</b>	<b>1,619.6418</b>	<b>113,826.7924</b>	<b>3,012,037.6734</b>	<b>3,125,864.4658</b>	<b>434.2363</b>	<b>91.4385</b>	<b>3,163,969.0522</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	3/30/2021	3/29/2021	5	0	
2	Paving	Paving	5/15/2021	5/14/2021	5	0	
3	Demolition	Demolition	7/2/2021	7/1/2021	5	0	
4	Architectural Coating	Architectural Coating	7/14/2021	7/13/2021	5	0	
5	Grading	Grading	10/30/2021	10/29/2021	5	0	
6	Site Preparation	Site Preparation	10/31/2021	10/29/2021	5	0	

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 49,708,080; Residential Outdoor: 16,569,360; Non-Residential Indoor: 119,360,700; Non-Residential Outdoor: 39,786,900; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	44,597.00	16,280.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8,919.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### **Mitigated Construction On-Site**

[illegible]

### **Mitigated Construction Off-Site**

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Mitigated Construction On-Site**

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### **Mitigated Construction On-Site**

[illegible]

### **Mitigated Construction Off-Site**

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### **Unmitigated Construction On-Site**

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]



## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### 3.7 Site Preparation - 2021

### **Mitigated Construction On-Site**

[illegible]

### Mitigated Construction Off-Site

[illegible]

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	882.6255	511.1204	8,311.7150	22.6911	2,585.0578	8.8659	2,593.9237	645.0297	8.2692	653.2989		2,310,930.8467	2,310,930.8467	83.1754	74.9152	2,335,334.9511
Unmitigated	882.6255	511.1204	8,311.7150	22.6911	2,585.0578	8.8659	2,593.9237	645.0297	8.2692	653.2989		2,310,930.8467	2,310,930.8467	83.1754	74.9152	2,335,334.9511

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	329,943.46	285,546.80	161,842.45	1,210,449,901	1,210,449,901
Total	329,943.46	285,546.80	161,842.45	1,210,449,901	1,210,449,901

## 4.3 Trip Type Information

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.10	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Apartments Mid Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
City Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Elementary School	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Golf Course	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Government Office Building	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Hotel	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Industrial Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Office Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Regional Shopping Center	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Single Family Housing	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457

**5.0 Energy Detail**

Historical Energy Use: N

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0589	383,050.0589	7.3418	7.0226	385,326.3339
NaturalGas Unmitigated	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0589	383,050.0589	7.3418	7.0226	385,326.3339

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	185548	2.0010	17.0996	7.2764	0.1092		1.3825	1.3825		1.3825	1.3825		21,829.22 93	21,829.22 93	0.4184	0.4002	21,958.94 95
Apartments Mid Rise	95869.4	1.0339	8.8350	3.7596	0.0564		0.7143	0.7143		0.7143	0.7143		11,278.75 20	11,278.75 20	0.2162	0.2068	11,345.77 60
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.939 6	4,334.939 6	0.0831	0.0795	4,360.699 9
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35847.7	0.3866	3.5145	2.9522	0.0211		0.2671	0.2671		0.2671	0.2671		4,217.377 6	4,217.377 6	0.0808	0.0773	4,242.439 4
Hotel	37813.5	0.4078	3.7072	3.1141	0.0222		0.2818	0.2818		0.2818	0.2818		4,448.642 1	4,448.642 1	0.0853	0.0816	4,475.078 1
Industrial Park	1.92306e +006	20.7389	188.5354	158.3697	1.1312		14.3287	14.3287		14.3287	14.3287		226,242.4 670	226,242.4 670	4.3363	4.1478	227,586.9 129
Office Park	96031.1	1.0356	9.4148	7.9084	0.0565		0.7155	0.7155		0.7155	0.7155		11,297.77 21	11,297.77 21	0.2165	0.2071	11,364.90 91
Regional Shopping Center	25844.2	0.2787	2.5337	2.1283	0.0152		0.1926	0.1926		0.1926	0.1926		3,040.488 6	3,040.488 6	0.0583	0.0557	3,058.556 7
Single Family Housing	819063	8.8330	75.4823	32.1201	0.4818		6.1028	6.1028		6.1028	6.1028		96,360.39 06	96,360.39 06	1.8469	1.7666	96,933.01 22
<b>Total</b>		<b>35.1129</b>	<b>312.7350</b>	<b>220.6633</b>	<b>1.9152</b>		<b>24.2598</b>	<b>24.2598</b>		<b>24.2598</b>	<b>24.2598</b>		<b>383,050.0 589</b>	<b>383,050.0 589</b>	<b>7.3418</b>	<b>7.0226</b>	<b>385,326.3 339</b>



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	185.548	2.0010	17.0996	7.2764	0.1092		1.3825	1.3825		1.3825	1.3825		21,829.2293	21,829.2293	0.4184	0.4002	21,958.9495
Apartments Mid Rise	95.8694	1.0339	8.8350	3.7596	0.0564		0.7143	0.7143		0.7143	0.7143		11,278.7520	11,278.7520	0.2162	0.2068	11,345.7760
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36.847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35.8477	0.3866	3.5145	2.9522	0.0211		0.2671	0.2671		0.2671	0.2671		4,217.3776	4,217.3776	0.0808	0.0773	4,242.4394
Hotel	37.8135	0.4078	3.7072	3.1141	0.0222		0.2818	0.2818		0.2818	0.2818		4,448.6421	4,448.6421	0.0853	0.0816	4,475.0781
Industrial Park	1923.06	20.7389	188.5354	158.3697	1.1312		14.3287	14.3287		14.3287	14.3287		226,242.4670	226,242.4670	4.3363	4.1478	227,586.9129
Office Park	96.0311	1.0356	9.4148	7.9084	0.0565		0.7155	0.7155		0.7155	0.7155		11,297.7721	11,297.7721	0.2165	0.2071	11,364.9091
Regional Shopping Center	25.8442	0.2787	2.5337	2.1283	0.0152		0.1926	0.1926		0.1926	0.1926		3,040.4886	3,040.4886	0.0583	0.0557	3,058.5567
Single Family Housing	819.063	8.8330	75.4823	32.1201	0.4818		6.1028	6.1028		6.1028	6.1028		96,360.3906	96,360.3906	1.8469	1.7666	96,933.0122
<b>Total</b>		<b>35.1129</b>	<b>312.7350</b>	<b>220.6633</b>	<b>1.9152</b>		<b>24.2598</b>	<b>24.2598</b>		<b>24.2598</b>	<b>24.2598</b>		<b>383,050.0589</b>	<b>383,050.0589</b>	<b>7.3418</b>	<b>7.0226</b>	<b>385,326.3339</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5,541.196 0	343.9041	7,594.022 7	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7 924	318,056.7 678	431,883.5 602	343.7191	9.5008	443,307.7 672
Unmitigated	5,541.196 0	343.9041	7,594.022 7	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7 924	318,056.7 678	431,883.5 602	343.7191	9.5008	443,307.7 672

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	244.1773					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,062.051 6					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,193.136 5	327.9750	6,212.194 9	16.2496		934.4027	934.4027		934.4027	934.4027	113,826.7 924	315,554.8 235	429,381.6 159	341.3092	9.5008	440,745.5 740
Landscaping	41.8306	15.9291	1,381.827 8	0.0735		7.6803	7.6803		7.6803	7.6803		2,501.944 3	2,501.944 3	2.4100		2,562.193 3
<b>Total</b>	<b>5,541.196 0</b>	<b>343.9041</b>	<b>7,594.022 7</b>	<b>16.3231</b>		<b>942.0830</b>	<b>942.0830</b>		<b>942.0830</b>	<b>942.0830</b>	<b>113,826.7 924</b>	<b>318,056.7 678</b>	<b>431,883.5 602</b>	<b>343.7191</b>	<b>9.5008</b>	<b>443,307.7 672</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	244.1773					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,062.0516					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,193.1365	327.9750	6,212.1949	16.2496		934.4027	934.4027		934.4027	934.4027	113,826.7924	315,554.8235	429,381.6159	341.3092	9.5008	440,745.5740
Landscaping	41.8306	15.9291	1,381.8278	0.0735		7.6803	7.6803		7.6803	7.6803		2,501.9443	2,501.9443	2.4100		2,562.1933
<b>Total</b>	<b>5,541.1960</b>	<b>343.9041</b>	<b>7,594.0227</b>	<b>16.3231</b>		<b>942.0830</b>	<b>942.0830</b>		<b>942.0830</b>	<b>942.0830</b>	<b>113,826.7924</b>	<b>318,056.7678</b>	<b>431,883.5602</b>	<b>343.7191</b>	<b>9.5008</b>	<b>443,307.7672</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Santa Fe Springs GPU (Proposed GPU; 2040)****Los Angeles-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,250.90	1000sqft	69.30	1,250,900.00	0
Office Park	3,598.70	1000sqft	178.50	3,598,700.00	0
Elementary School	1,287.00	1000sqft	189.90	1,287,000.00	0
Industrial Park	67,104.90	1000sqft	3,183.10	67,104,900.00	0
City Park	106.50	Acre	106.50	4,639,140.00	0
Golf Course	96.60	Acre	96.60	4,207,896.00	0
Hotel	1,020.00	Room	15.30	580,400.00	0
Apartments Low Rise	4,267.00	Dwelling Unit	364.20	4,267,000.00	12204
Apartments Mid Rise	2,678.00	Dwelling Unit	53.50	2,678,000.00	7659
Single Family Housing	9,779.00	Dwelling Unit	1,064.90	17,602,200.00	27968
Regional Shopping Center	5,751.90	1000sqft	453.60	5,751,900.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2040
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	150.55	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - MIG Modeler: Phil Gleason. SCE GHG intensity factor for CO2 updated to reflect estimated SCE 2040 energy mix.

Land Use - Source: EIR PD; Tables 3-2 and 3-3. Open / vacant / ROW space not modeled.

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Construction Phase - Future operational model run - no construction emissions modeled.

Vehicle Trips - Percentage of weekday / weekend trip rates derived from a default CalEEMod run for specified land uses. Average trip distance and VMT estimates are from F&P (slightly adjusted based on SP) that were annualized.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Vehicle Emission Factors - Updated based on EMFAC v2021 v1.0.1 for LA Co. in 2040.

Energy Use - Assumes low- and med-apt and hotel built to 2019 T24 Code. Ele schl, govt off, and ind prk remain at 2013 T24 Code. Remaining see minor imprs to avg 2016 T24 Code standards. Factors obtained from CMod v2020.4.0; adj CMod Apdx Tbl 1, 3, 4

Woodstoves - Wood burning devices excluded from new dev pursuant to SCAQMD Rule 445. Modeling assumes existing dev that remains has stoves/hearths per default values.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	T24E	1.56	1.83
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	4.11	4.82
tblEnergyUse	T24E	5.01	5.25
tblEnergyUse	T24E	3.58	3.75
tblEnergyUse	T24E	93.13	105.47
tblEnergyUse	T24NG	9.23	9.37
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.92	10.07
tblEnergyUse	T24NG	9.50	9.55
tblEnergyUse	T24NG	1.14	1.15
tblEnergyUse	T24NG	19,108.08	24,187.44
tblFireplaces	NumberGas	3,626.95	3,911.05

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblFireplaces	NumberGas	2,276.30	2,678.00
tblFireplaces	NumberNoFireplace	426.70	237.30
tblFireplaces	NumberNoFireplace	267.80	0.00
tblFireplaces	NumberWood	213.35	118.65
tblFireplaces	NumberWood	133.90	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	1,481,040.00	580,400.00
tblLandUse	LotAcreage	28.72	69.30
tblLandUse	LotAcreage	82.61	178.50
tblLandUse	LotAcreage	29.55	189.90
tblLandUse	LotAcreage	1,540.52	3,183.10
tblLandUse	LotAcreage	34.00	15.30
tblLandUse	LotAcreage	266.69	364.20
tblLandUse	LotAcreage	70.47	53.50
tblLandUse	LotAcreage	3,175.00	1,064.90
tblLandUse	LotAcreage	132.05	453.60
tblProjectCharacteristics	CO2IntensityFactor	390.98	150.55
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.07	4.65
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.8520e-003	8.3200e-004
tblVehicleEF	HHD	921.34	605.94
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0580e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	5.71	3.51
tblVehicleEF	HHD	2.38	1.05
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.1440e-003	1.4260e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0520e-003	1.3590e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	9.6000e-005	3.0000e-006
tblVehicleEF	HHD	0.47	0.29
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	3.6000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.5060e-003	5.3340e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	9.6000e-005	3.0000e-006
tblVehicleEF	HHD	0.54	0.43
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.6000e-005	3.1000e-005



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	6.98	4.60
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.4030e-003	7.9100e-004
tblVehicleEF	HHD	909.55	598.69
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	7.9920e-003
tblVehicleEF	HHD	0.14	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006
tblVehicleEF	HHD	5.43	3.34
tblVehicleEF	HHD	2.25	0.99
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	1.9010e-003	1.2810e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	1.8180e-003	1.2200e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	4.0000e-006	1.7000e-005
tblVehicleEF	HHD	9.8000e-005	3.0000e-006
tblVehicleEF	HHD	0.50	0.31
tblVehicleEF	HHD	3.0000e-006	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.02	9.1090e-003
tblVehicleEF	HHD	3.5000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.3970e-003	5.2650e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	4.0000e-006	1.7000e-005
tblVehicleEF	HHD	9.8000e-005	3.0000e-006
tblVehicleEF	HHD	0.57	0.45
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	3.5000e-005	3.1000e-005
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.11
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.20	4.73
tblVehicleEF	HHD	0.55	0.25
tblVehicleEF	HHD	8.9350e-003	8.4100e-004
tblVehicleEF	HHD	937.61	615.95
tblVehicleEF	HHD	1,051.59	1,108.43
tblVehicleEF	HHD	0.07	8.0720e-003
tblVehicleEF	HHD	0.15	0.10
tblVehicleEF	HHD	0.17	0.18
tblVehicleEF	HHD	1.9000e-005	1.0000e-006
tblVehicleEF	HHD	6.10	3.74
tblVehicleEF	HHD	2.34	1.03
tblVehicleEF	HHD	2.34	2.16
tblVehicleEF	HHD	2.4810e-003	1.6260e-003
tblVehicleEF	HHD	0.06	0.08

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.3740e-003	1.5500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9080e-003	8.8690e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	1.0000e-004	3.0000e-006
tblVehicleEF	HHD	0.43	0.27
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.02	9.1080e-003
tblVehicleEF	HHD	4.0000e-005	3.1000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.6570e-003	5.4290e-003
tblVehicleEF	HHD	9.4090e-003	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6000e-005
tblVehicleEF	HHD	1.0000e-004	3.0000e-006
tblVehicleEF	HHD	0.50	0.40
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	0.11	0.00
tblVehicleEF	HHD	4.0000e-005	3.1000e-005
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	7.7700e-004	1.0540e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.40	0.45
tblVehicleEF	LDA	1.31	1.44

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	193.73	213.20
tblVehicleEF	LDA	36.79	50.59
tblVehicleEF	LDA	3.0690e-003	2.7950e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.3020e-003	3.2140e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.9160e-003	2.1080e-003
tblVehicleEF	LDA	3.6400e-004	5.0000e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3330e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDA	8.3600e-004	1.0920e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.45	0.53

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	1.12	1.24
tblVehicleEF	LDA	202.55	222.82
tblVehicleEF	LDA	36.47	50.22
tblVehicleEF	LDA	2.8150e-003	2.4740e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.10	0.13
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	2.4490e-003	3.2940e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.06	0.11
tblVehicleEF	LDA	2.0040e-003	2.2030e-003
tblVehicleEF	LDA	3.6100e-004	4.9600e-004
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.5480e-003	0.12
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	7.5900e-004	1.0450e-003
tblVehicleEF	LDA	0.02	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDA	0.39	0.42
tblVehicleEF	LDA	1.35	1.49
tblVehicleEF	LDA	190.51	209.66
tblVehicleEF	LDA	36.86	50.67
tblVehicleEF	LDA	2.9890e-003	2.7420e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.14
tblVehicleEF	LDA	0.04	8.0480e-003
tblVehicleEF	LDA	6.7900e-004	5.7400e-004
tblVehicleEF	LDA	7.4000e-004	8.7100e-004
tblVehicleEF	LDA	0.02	2.8170e-003
tblVehicleEF	LDA	6.2400e-004	5.2800e-004
tblVehicleEF	LDA	6.8100e-004	8.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	2.2540e-003	3.1910e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.12
tblVehicleEF	LDA	1.8840e-003	2.0730e-003
tblVehicleEF	LDA	3.6500e-004	5.0100e-004
tblVehicleEF	LDA	0.02	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.2640e-003	0.13
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	0.07	0.13
tblVehicleEF	LDT1	1.0250e-003	1.7810e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.45	0.62
tblVehicleEF	LDT1	1.41	1.85
tblVehicleEF	LDT1	233.12	279.27
tblVehicleEF	LDT1	44.79	65.96
tblVehicleEF	LDT1	3.1660e-003	3.8840e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.2080e-003	6.1650e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.3070e-003	2.7610e-003
tblVehicleEF	LDT1	4.4300e-004	6.5200e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.6800e-003	0.18
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.09	0.18

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	1.0990e-003	1.8420e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.49	0.73
tblVehicleEF	LDT1	1.21	1.59
tblVehicleEF	LDT1	241.99	290.25
tblVehicleEF	LDT1	44.44	65.47
tblVehicleEF	LDT1	2.8730e-003	3.4380e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.11	0.18
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	3.4100e-003	6.3180e-003
tblVehicleEF	LDT1	0.03	0.25
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.3950e-003	2.8690e-003
tblVehicleEF	LDT1	4.4000e-004	6.4700e-004
tblVehicleEF	LDT1	0.04	0.38
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	4.9750e-003	0.16
tblVehicleEF	LDT1	0.03	0.25



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	1.0020e-003	1.7650e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.43	0.58
tblVehicleEF	LDT1	1.46	1.91
tblVehicleEF	LDT1	229.86	275.22
tblVehicleEF	LDT1	44.86	66.07
tblVehicleEF	LDT1	3.0770e-003	3.8110e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.12	0.19
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	7.9200e-004	7.6900e-004
tblVehicleEF	LDT1	8.6300e-004	1.1240e-003
tblVehicleEF	LDT1	0.02	3.6440e-003
tblVehicleEF	LDT1	7.2800e-004	7.0700e-004
tblVehicleEF	LDT1	7.9400e-004	1.0340e-003
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	3.1420e-003	6.1210e-003
tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	2.2750e-003	2.7210e-003
tblVehicleEF	LDT1	4.4400e-004	6.5300e-004
tblVehicleEF	LDT1	0.03	0.36
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.03	0.00
tblVehicleEF	LDT1	4.5840e-003	0.19

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT1	0.04	0.25
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT2	1.2370e-003	1.6380e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.50	0.60
tblVehicleEF	LDT2	1.76	1.96
tblVehicleEF	LDT2	231.46	291.91
tblVehicleEF	LDT2	44.41	68.52
tblVehicleEF	LDT2	3.3840e-003	3.7140e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.19
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.1090e-003	5.3200e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2890e-003	2.8850e-003
tblVehicleEF	LDT2	4.3900e-004	6.7700e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	5.9260e-003	0.18
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	1.3260e-003	1.6950e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.55	0.71
tblVehicleEF	LDT2	1.50	1.68
tblVehicleEF	LDT2	239.44	302.38
tblVehicleEF	LDT2	43.97	68.01
tblVehicleEF	LDT2	3.1020e-003	3.3030e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.11	0.18
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	4.3550e-003	5.4500e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.15
tblVehicleEF	LDT2	2.3680e-003	2.9890e-003
tblVehicleEF	LDT2	4.3500e-004	6.7200e-004
tblVehicleEF	LDT2	0.05	0.22
tblVehicleEF	LDT2	0.05	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2850e-003	0.16
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	1.2100e-003	1.6230e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.49	0.57
tblVehicleEF	LDT2	1.81	2.03
tblVehicleEF	LDT2	228.53	288.06
tblVehicleEF	LDT2	44.51	68.64
tblVehicleEF	LDT2	3.2980e-003	3.6460e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.04	0.01
tblVehicleEF	LDT2	7.7200e-004	6.7400e-004
tblVehicleEF	LDT2	7.7300e-004	9.4000e-004
tblVehicleEF	LDT2	0.02	3.5640e-003
tblVehicleEF	LDT2	7.1100e-004	6.2000e-004
tblVehicleEF	LDT2	7.1100e-004	8.6400e-004
tblVehicleEF	LDT2	0.03	0.21
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	4.0290e-003	5.2830e-003
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	2.2600e-003	2.8470e-003
tblVehicleEF	LDT2	4.4000e-004	6.7900e-004
tblVehicleEF	LDT2	0.03	0.21

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.00
tblVehicleEF	LDT2	5.8090e-003	0.19
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	0.11	0.19
tblVehicleEF	LHD1	3.2430e-003	2.6460e-003
tblVehicleEF	LHD1	1.6140e-003	7.9600e-004
tblVehicleEF	LHD1	5.2840e-003	9.0100e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.69	1.37
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.07	10.37
tblVehicleEF	LHD1	7.4400e-004	4.5000e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4320e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	8.0000e-005	1.0300e-004
tblVehicleEF	LHD1	9.2900e-004	0.06
tblVehicleEF	LHD1	0.03	9.4320e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3000e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	3.2500e-003	2.6550e-003
tblVehicleEF	LHD1	1.6270e-003	1.2750e-003
tblVehicleEF	LHD1	5.1050e-003	8.7190e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.22
tblVehicleEF	LHD1	0.66	1.32
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.98
tblVehicleEF	LHD1	8.02	10.27
tblVehicleEF	LHD1	7.4600e-004	4.5100e-004
tblVehicleEF	LHD1	0.03	0.02

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003
tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7250e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	7.9000e-005	1.0200e-004
tblVehicleEF	LHD1	1.3850e-003	0.06
tblVehicleEF	LHD1	0.03	9.7250e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.9900e-004	0.00
tblVehicleEF	LHD1	0.03	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	3.2420e-003	2.6440e-003
tblVehicleEF	LHD1	1.6110e-003	1.2650e-003
tblVehicleEF	LHD1	5.3210e-003	9.0740e-003
tblVehicleEF	LHD1	0.17	0.13
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.70	1.38
tblVehicleEF	LHD1	7.63	5.55
tblVehicleEF	LHD1	518.74	313.97
tblVehicleEF	LHD1	8.08	10.39
tblVehicleEF	LHD1	7.4400e-004	4.5000e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	1.0720e-003	5.6700e-004
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	9.0450e-003
tblVehicleEF	LHD1	3.7290e-003	3.6300e-003
tblVehicleEF	LHD1	1.6800e-004	5.3000e-005
tblVehicleEF	LHD1	1.0260e-003	5.4200e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.5310e-003	2.2610e-003
tblVehicleEF	LHD1	3.5460e-003	3.4590e-003
tblVehicleEF	LHD1	1.5400e-004	4.9000e-005
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3910e-003



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.02	0.04
tblVehicleEF	LHD1	7.4000e-005	5.4000e-005
tblVehicleEF	LHD1	5.0430e-003	3.0530e-003
tblVehicleEF	LHD1	8.0000e-005	1.0300e-004
tblVehicleEF	LHD1	8.7400e-004	0.06
tblVehicleEF	LHD1	0.03	9.3910e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.9600e-004	0.00
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.04
tblVehicleEF	LHD2	2.1740e-003	1.4470e-003
tblVehicleEF	LHD2	1.8050e-003	1.3180e-003
tblVehicleEF	LHD2	3.1420e-003	4.4150e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1140e-003	8.4490e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6230e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.4000e-005
tblVehicleEF	LHD2	5.7300e-004	0.03
tblVehicleEF	LHD2	0.02	5.6230e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1790e-003	1.4520e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	1.8120e-003	1.3210e-003
tblVehicleEF	LHD2	3.0360e-003	4.2730e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.41	0.72
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.65	359.39
tblVehicleEF	LHD2	5.72	5.45
tblVehicleEF	LHD2	1.5380e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	8.8900e-003	8.2280e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07
tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7870e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.03	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.4000e-005
tblVehicleEF	LHD2	8.5300e-004	0.04
tblVehicleEF	LHD2	0.02	5.7870e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	6.2300e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	2.1740e-003	1.4460e-003
tblVehicleEF	LHD2	1.8030e-003	1.3180e-003
tblVehicleEF	LHD2	3.1640e-003	4.4470e-003
tblVehicleEF	LHD2	0.13	0.09
tblVehicleEF	LHD2	0.19	0.15
tblVehicleEF	LHD2	0.43	0.75
tblVehicleEF	LHD2	11.92	8.99
tblVehicleEF	LHD2	523.64	359.38
tblVehicleEF	LHD2	5.75	5.51
tblVehicleEF	LHD2	1.5370e-003	1.1390e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	9.1920e-003	8.5170e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	1.4920e-003	1.0240e-003
tblVehicleEF	LHD2	0.09	0.07

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	LHD2	0.01	9.8130e-003
tblVehicleEF	LHD2	9.4710e-003	6.8620e-003
tblVehicleEF	LHD2	1.0200e-004	2.5000e-005
tblVehicleEF	LHD2	1.4270e-003	9.7900e-004
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7170e-003	2.4530e-003
tblVehicleEF	LHD2	9.0480e-003	6.5580e-003
tblVehicleEF	LHD2	9.4000e-005	2.3000e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6010e-003
tblVehicleEF	LHD2	0.01	8.3370e-003
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1400e-004	8.6000e-005
tblVehicleEF	LHD2	5.0470e-003	3.4510e-003
tblVehicleEF	LHD2	5.7000e-005	5.5000e-005
tblVehicleEF	LHD2	5.3600e-004	0.03
tblVehicleEF	LHD2	0.02	5.6010e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	4.3600e-004	0.00
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.22	0.13
tblVehicleEF	MCY	17.74	10.66
tblVehicleEF	MCY	8.79	7.19

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	224.86	192.79
tblVehicleEF	MCY	56.76	36.74
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.01	4.6950e-003
tblVehicleEF	MCY	1.13	0.47
tblVehicleEF	MCY	0.26	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	2.56	0.91
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.74	0.90
tblVehicleEF	MCY	2.2250e-003	1.9060e-003
tblVehicleEF	MCY	5.6200e-004	3.6300e-004
tblVehicleEF	MCY	1.13	1.70
tblVehicleEF	MCY	0.63	3.60
tblVehicleEF	MCY	0.66	0.00
tblVehicleEF	MCY	3.22	0.98
tblVehicleEF	MCY	0.44	3.70
tblVehicleEF	MCY	1.89	0.98
tblVehicleEF	MCY	0.37	0.15
tblVehicleEF	MCY	0.20	0.12
tblVehicleEF	MCY	17.16	10.82

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	7.93	6.41
tblVehicleEF	MCY	223.77	193.09
tblVehicleEF	MCY	54.79	35.24
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.01	4.6360e-003
tblVehicleEF	MCY	0.99	0.42
tblVehicleEF	MCY	0.25	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	2.52	0.93
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.55	0.82
tblVehicleEF	MCY	2.2140e-003	1.9090e-003
tblVehicleEF	MCY	5.4200e-004	3.4800e-004
tblVehicleEF	MCY	1.80	2.02
tblVehicleEF	MCY	0.71	3.68
tblVehicleEF	MCY	1.06	0.00
tblVehicleEF	MCY	3.16	0.89
tblVehicleEF	MCY	0.40	3.63
tblVehicleEF	MCY	1.69	0.89
tblVehicleEF	MCY	0.38	0.15
tblVehicleEF	MCY	0.23	0.13

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MCY	17.83	10.62
tblVehicleEF	MCY	8.95	7.36
tblVehicleEF	MCY	225.03	192.71
tblVehicleEF	MCY	57.13	37.06
tblVehicleEF	MCY	0.06	0.03
tblVehicleEF	MCY	0.02	4.7790e-003
tblVehicleEF	MCY	1.10	0.46
tblVehicleEF	MCY	0.27	0.07
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.7870e-003	2.4970e-003
tblVehicleEF	MCY	2.9880e-003	3.5980e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.5980e-003	2.3280e-003
tblVehicleEF	MCY	2.7880e-003	3.3580e-003
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	2.57	0.91
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.77	0.92
tblVehicleEF	MCY	2.2270e-003	1.9050e-003
tblVehicleEF	MCY	5.6500e-004	3.6600e-004
tblVehicleEF	MCY	1.21	1.73
tblVehicleEF	MCY	0.79	3.59
tblVehicleEF	MCY	0.63	0.00
tblVehicleEF	MCY	3.23	1.00
tblVehicleEF	MCY	0.52	4.00
tblVehicleEF	MCY	1.93	1.00
tblVehicleEF	MDV	1.3150e-003	1.7670e-003



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.51	0.62
tblVehicleEF	MDV	1.76	1.97
tblVehicleEF	MDV	281.64	348.15
tblVehicleEF	MDV	52.74	81.40
tblVehicleEF	MDV	4.6520e-003	4.3400e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	4.4900e-003	5.9520e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.10	0.18
tblVehicleEF	MDV	2.7830e-003	3.4400e-003
tblVehicleEF	MDV	5.2200e-004	8.0500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.4680e-003	0.20
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.11	0.19

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	1.4100e-003	1.8300e-003
tblVehicleEF	MDV	0.02	0.04
tblVehicleEF	MDV	0.56	0.73
tblVehicleEF	MDV	1.50	1.68
tblVehicleEF	MDV	289.51	358.45
tblVehicleEF	MDV	52.30	80.88
tblVehicleEF	MDV	4.3600e-003	3.9070e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	4.7590e-003	6.0990e-003
tblVehicleEF	MDV	0.03	0.17
tblVehicleEF	MDV	0.09	0.16
tblVehicleEF	MDV	2.8610e-003	3.5420e-003
tblVehicleEF	MDV	5.1800e-004	8.0000e-004
tblVehicleEF	MDV	0.08	0.25
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.08	0.00
tblVehicleEF	MDV	6.8600e-003	0.18
tblVehicleEF	MDV	0.03	0.17

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2860e-003	1.7510e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.49	0.58
tblVehicleEF	MDV	1.81	2.03
tblVehicleEF	MDV	278.75	344.36
tblVehicleEF	MDV	52.84	81.52
tblVehicleEF	MDV	4.5620e-003	4.2680e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.04	0.01
tblVehicleEF	MDV	7.8000e-004	6.8500e-004
tblVehicleEF	MDV	7.8800e-004	9.5100e-004
tblVehicleEF	MDV	0.02	3.5910e-003
tblVehicleEF	MDV	7.1900e-004	6.3100e-004
tblVehicleEF	MDV	7.2500e-004	8.7500e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	4.4030e-003	5.9110e-003
tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	2.7540e-003	3.4030e-003
tblVehicleEF	MDV	5.2300e-004	8.0600e-004
tblVehicleEF	MDV	0.05	0.23
tblVehicleEF	MDV	0.07	0.05
tblVehicleEF	MDV	0.05	0.00
tblVehicleEF	MDV	6.3410e-003	0.20

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MDV	0.04	0.17
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MH	3.1420e-003	2.7950e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.44	1.58
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.93	18.96
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.79
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.25	11.73
tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8700e-004
tblVehicleEF	MH	0.25	11.73

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.01	2.06
tblVehicleEF	MH	0.15	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.9540e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1910e-003	2.8370e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	1.36	1.50
tblVehicleEF	MH	1,200.60	1,515.03
tblVehicleEF	MH	13.79	18.81
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.74
tblVehicleEF	MH	0.21	0.25
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.06	0.07

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3600e-004	1.8600e-004
tblVehicleEF	MH	0.37	12.31
tblVehicleEF	MH	0.01	2.12
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	1.8960e-003	0.06
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MH	3.1280e-003	2.7840e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.16	0.15
tblVehicleEF	MH	1.45	1.60
tblVehicleEF	MH	1,200.60	1,515.02
tblVehicleEF	MH	13.95	18.99
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.72	0.77
tblVehicleEF	MH	0.22	0.26
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1360e-003	0.01
tblVehicleEF	MH	2.1300e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2990e-003	3.3470e-003
tblVehicleEF	MH	7.7520e-003	0.01
tblVehicleEF	MH	1.9600e-004	2.1200e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	1.3800e-004	1.8800e-004
tblVehicleEF	MH	0.24	11.73
tblVehicleEF	MH	0.02	2.05
tblVehicleEF	MH	0.14	0.00
tblVehicleEF	MH	0.03	0.08
tblVehicleEF	MH	2.1020e-003	0.07
tblVehicleEF	MH	0.07	0.08
tblVehicleEF	MHD	3.8760e-003	0.02
tblVehicleEF	MHD	6.9300e-004	6.2950e-003
tblVehicleEF	MHD	8.2770e-003	4.9520e-003
tblVehicleEF	MHD	0.38	0.43
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.45
tblVehicleEF	MHD	51.29	87.39
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.00	5.00
tblVehicleEF	MHD	7.2440e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.2400e-003	3.6900e-003
tblVehicleEF	MHD	0.26	0.43
tblVehicleEF	MHD	1.06	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	7.2000e-005	1.5100e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	6.9000e-005	1.4400e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3600e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	7.8910e-003	4.0270e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8700e-004	7.8500e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	3.3200e-004	0.02
tblVehicleEF	MHD	0.01	2.3600e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	2.6500e-004	0.00
tblVehicleEF	MHD	9.4490e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	3.6860e-003	0.02
tblVehicleEF	MHD	7.0400e-004	6.3020e-003
tblVehicleEF	MHD	7.9900e-003	4.7820e-003
tblVehicleEF	MHD	0.32	0.40
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.72	0.43
tblVehicleEF	MHD	50.88	86.40



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	829.72	640.27
tblVehicleEF	MHD	7.94	4.96
tblVehicleEF	MHD	7.1500e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.0650e-003	3.6080e-003
tblVehicleEF	MHD	0.25	0.41
tblVehicleEF	MHD	1.00	0.16
tblVehicleEF	MHD	1.67	0.68
tblVehicleEF	MHD	6.3000e-005	1.3600e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003
tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	6.1000e-005	1.2900e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4300e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	7.9230e-003	4.0490e-003
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.8300e-004	7.7500e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	4.9400e-004	0.02
tblVehicleEF	MHD	0.01	2.4300e-003
tblVehicleEF	MHD	0.02	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	3.6200e-004	0.00
tblVehicleEF	MHD	9.4960e-003	0.02
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.1520e-003	0.02
tblVehicleEF	MHD	6.8900e-004	6.2920e-003
tblVehicleEF	MHD	8.3190e-003	4.9800e-003
tblVehicleEF	MHD	0.46	0.48
tblVehicleEF	MHD	0.10	0.06
tblVehicleEF	MHD	0.76	0.46
tblVehicleEF	MHD	51.85	88.76
tblVehicleEF	MHD	829.71	640.27
tblVehicleEF	MHD	8.01	5.01
tblVehicleEF	MHD	7.3770e-003	0.01
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	8.3310e-003	3.7300e-003
tblVehicleEF	MHD	0.28	0.46
tblVehicleEF	MHD	1.04	0.17
tblVehicleEF	MHD	1.68	0.68
tblVehicleEF	MHD	8.3000e-005	1.7300e-004
tblVehicleEF	MHD	0.13	0.03
tblVehicleEF	MHD	6.2460e-003	2.1770e-003
tblVehicleEF	MHD	1.1300e-004	6.2000e-005
tblVehicleEF	MHD	8.0000e-005	1.6500e-004
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	5.9690e-003	2.0790e-003
tblVehicleEF	MHD	1.0400e-004	5.7000e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3510e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	7.8820e-003	4.0200e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	4.9200e-004	7.9700e-004
tblVehicleEF	MHD	7.9240e-003	6.0400e-003
tblVehicleEF	MHD	7.9000e-005	4.9000e-005
tblVehicleEF	MHD	3.1100e-004	0.02
tblVehicleEF	MHD	0.01	2.3510e-003
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	2.5300e-004	0.00
tblVehicleEF	MHD	9.4360e-003	0.02
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	OBUS	7.8260e-003	0.02
tblVehicleEF	OBUS	1.5290e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.68	0.69
tblVehicleEF	OBUS	0.19	0.38
tblVehicleEF	OBUS	1.59	1.52
tblVehicleEF	OBUS	88.67	93.17
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.03	13.19
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.43	0.24
tblVehicleEF	OBUS	1.14	0.65

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.4500e-004	2.5400e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.3800e-004	2.4200e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.4200e-004	8.3200e-004
tblVehicleEF	OBUS	0.01	9.8860e-003
tblVehicleEF	OBUS	1.3900e-004	1.3000e-004
tblVehicleEF	OBUS	1.3990e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.4400e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	7.9300e-003	0.02
tblVehicleEF	OBUS	1.5580e-003	0.05
tblVehicleEF	OBUS	0.02	0.01

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	0.67	0.68
tblVehicleEF	OBUS	0.19	0.39
tblVehicleEF	OBUS	1.51	1.44
tblVehicleEF	OBUS	87.61	92.17
tblVehicleEF	OBUS	1,066.30	1,094.48
tblVehicleEF	OBUS	13.88	13.05
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.41	0.23
tblVehicleEF	OBUS	1.07	0.61
tblVehicleEF	OBUS	0.97	0.53
tblVehicleEF	OBUS	1.2900e-004	2.2500e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.2300e-004	2.1400e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.3200e-004	8.2300e-004
tblVehicleEF	OBUS	0.01	9.8860e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	1.3700e-004	1.2900e-004
tblVehicleEF	OBUS	2.0320e-003	0.10
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	1.1500e-003	0.00
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	7.7040e-003	0.02
tblVehicleEF	OBUS	1.5210e-003	0.05
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.70
tblVehicleEF	OBUS	0.18	0.38
tblVehicleEF	OBUS	1.61	1.54
tblVehicleEF	OBUS	90.13	94.55
tblVehicleEF	OBUS	1,066.29	1,094.48
tblVehicleEF	OBUS	14.06	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.13
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.26
tblVehicleEF	OBUS	1.12	0.63
tblVehicleEF	OBUS	0.98	0.54
tblVehicleEF	OBUS	1.6700e-004	2.9400e-004
tblVehicleEF	OBUS	0.13	0.06
tblVehicleEF	OBUS	7.6730e-003	0.01
tblVehicleEF	OBUS	1.9100e-004	1.3600e-004
tblVehicleEF	OBUS	1.6000e-004	2.8000e-004
tblVehicleEF	OBUS	0.06	0.02

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	OBUS	7.3270e-003	9.8140e-003
tblVehicleEF	OBUS	1.7500e-004	1.2500e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	8.5600e-004	8.4500e-004
tblVehicleEF	OBUS	0.01	9.8860e-003
tblVehicleEF	OBUS	1.3900e-004	1.3100e-004
tblVehicleEF	OBUS	1.3280e-003	0.09
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.08
tblVehicleEF	OBUS	8.0300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.06	0.10
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6680e-003	1.02
tblVehicleEF	SBUS	9.4040e-003	6.1470e-003
tblVehicleEF	SBUS	4.65	3.01
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.19	0.71
tblVehicleEF	SBUS	307.82	222.75
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.46	4.86
tblVehicleEF	SBUS	0.04	0.03

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.5500e-003	6.7460e-003
tblVehicleEF	SBUS	1.21	0.32
tblVehicleEF	SBUS	1.21	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.2200e-004	5.9000e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	3.0800e-004	5.4400e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.1330e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9550e-003	7.8200e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.4000e-005	4.8000e-005
tblVehicleEF	SBUS	1.8650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.1330e-003	0.00



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6950e-003	1.02
tblVehicleEF	SBUS	8.3730e-003	5.4880e-003
tblVehicleEF	SBUS	4.64	3.01
tblVehicleEF	SBUS	0.18	3.32
tblVehicleEF	SBUS	0.97	0.58
tblVehicleEF	SBUS	305.56	222.60
tblVehicleEF	SBUS	851.48	827.15
tblVehicleEF	SBUS	7.09	4.64
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.3010e-003	6.5810e-003
tblVehicleEF	SBUS	1.16	0.32
tblVehicleEF	SBUS	1.14	0.26
tblVehicleEF	SBUS	1.76	0.17
tblVehicleEF	SBUS	2.8400e-004	5.8400e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	2.7100e-004	5.3900e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	2.7120e-003	0.10

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	2.9330e-003	7.8100e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.0000e-005	4.6000e-005
tblVehicleEF	SBUS	2.7120e-003	0.10
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.5400e-003	0.00
tblVehicleEF	SBUS	0.02	0.13
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.11	0.52
tblVehicleEF	SBUS	1.6600e-003	1.02
tblVehicleEF	SBUS	9.6290e-003	6.2970e-003
tblVehicleEF	SBUS	4.67	3.02
tblVehicleEF	SBUS	0.17	3.32
tblVehicleEF	SBUS	1.23	0.73
tblVehicleEF	SBUS	310.93	222.95
tblVehicleEF	SBUS	851.47	827.15
tblVehicleEF	SBUS	7.53	4.90
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	9.7130e-003	6.8690e-003
tblVehicleEF	SBUS	1.28	0.33

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	SBUS	1.19	0.28
tblVehicleEF	SBUS	1.77	0.18
tblVehicleEF	SBUS	3.7500e-004	5.9900e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	9.9960e-003
tblVehicleEF	SBUS	4.0590e-003	2.2850e-003
tblVehicleEF	SBUS	1.2700e-004	6.7000e-005
tblVehicleEF	SBUS	3.5800e-004	5.5200e-004
tblVehicleEF	SBUS	0.32	0.01
tblVehicleEF	SBUS	2.5760e-003	2.4990e-003
tblVehicleEF	SBUS	3.8600e-003	2.1230e-003
tblVehicleEF	SBUS	1.1700e-004	6.2000e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.52	0.26
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	2.9840e-003	7.8400e-004
tblVehicleEF	SBUS	8.1830e-003	4.0930e-003
tblVehicleEF	SBUS	7.5000e-005	4.8000e-005
tblVehicleEF	SBUS	1.7650e-003	0.09
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.75	0.84
tblVehicleEF	SBUS	1.0770e-003	0.00
tblVehicleEF	SBUS	0.02	0.15
tblVehicleEF	SBUS	0.03	0.06
tblVehicleEF	SBUS	0.06	0.04

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.8560e-003	9.3600e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.70	0.18
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.86	1.13
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3720e-003	1.4830e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.3720e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	2.7200e-004	2.9290e-003
tblVehicleEF	UBUS	2.8180e-003	8.1000e-004
tblVehicleEF	UBUS	1.9400e-004	0.00
tblVehicleEF	UBUS	0.09	9.4150e-003
tblVehicleEF	UBUS	5.6600e-004	3.0130e-003
tblVehicleEF	UBUS	0.04	3.2410e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.8000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7200e-004	2.9290e-003
tblVehicleEF	UBUS	2.8180e-003	8.1000e-004
tblVehicleEF	UBUS	1.9400e-004	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	6.01	1.9930e-003
tblVehicleEF	UBUS	5.6600e-004	3.0130e-003
tblVehicleEF	UBUS	0.04	3.5490e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.2230e-003	8.7900e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.62	0.16
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.71	1.10
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.3030e-003	1.4530e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.06	8.9550e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	4.0600e-004	3.3430e-003
tblVehicleEF	UBUS	2.9850e-003	8.4300e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	0.09	9.4160e-003
tblVehicleEF	UBUS	5.1800e-004	3.0040e-003
tblVehicleEF	UBUS	0.03	3.0230e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.6000e-005	1.1000e-005

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	4.0600e-004	3.3430e-003
tblVehicleEF	UBUS	2.9850e-003	8.4300e-004
tblVehicleEF	UBUS	2.8300e-004	0.00
tblVehicleEF	UBUS	6.01	1.8590e-003
tblVehicleEF	UBUS	5.1800e-004	3.0040e-003
tblVehicleEF	UBUS	0.04	3.3100e-003
tblVehicleEF	UBUS	5.88	0.64
tblVehicleEF	UBUS	8.9960e-003	9.5000e-004
tblVehicleEF	UBUS	45.70	7.38
tblVehicleEF	UBUS	0.72	0.19
tblVehicleEF	UBUS	1,965.88	351.70
tblVehicleEF	UBUS	6.89	1.14
tblVehicleEF	UBUS	0.38	0.07
tblVehicleEF	UBUS	6.4730e-003	1.5000e-003
tblVehicleEF	UBUS	0.46	0.02
tblVehicleEF	UBUS	0.07	9.4660e-003
tblVehicleEF	UBUS	0.07	0.06
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	3.2840e-003	1.3200e-004
tblVehicleEF	UBUS	8.7000e-005	5.0000e-006
tblVehicleEF	UBUS	0.03	0.02
tblVehicleEF	UBUS	7.9830e-003	8.2100e-003
tblVehicleEF	UBUS	3.1370e-003	1.2500e-004
tblVehicleEF	UBUS	8.0000e-005	5.0000e-006
tblVehicleEF	UBUS	2.8600e-004	2.9090e-003
tblVehicleEF	UBUS	3.1520e-003	8.0500e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	0.09	9.4150e-003
tblVehicleEF	UBUS	6.7900e-004	3.1350e-003

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleEF	UBUS	0.04	3.2930e-003
tblVehicleEF	UBUS	1.0800e-003	1.0400e-004
tblVehicleEF	UBUS	6.8000e-005	1.1000e-005
tblVehicleEF	UBUS	2.8600e-004	2.9090e-003
tblVehicleEF	UBUS	3.1520e-003	8.0500e-004
tblVehicleEF	UBUS	1.9100e-004	0.00
tblVehicleEF	UBUS	6.01	2.0250e-003
tblVehicleEF	UBUS	6.7900e-004	3.1350e-003
tblVehicleEF	UBUS	0.04	3.6060e-003
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	11.10
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	2.54	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	ST_TR	9.54	29.20
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	4.09	0.00

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.24	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	SU_TR	8.55	16.55
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	3.37	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	37.75	0.00
tblVehicleTrips	WD_TR	9.44	33.74
tblWoodstoves	NumberCatalytic	213.35	118.65
tblWoodstoves	NumberCatalytic	133.90	0.00
tblWoodstoves	NumberNoncatalytic	213.35	118.65
tblWoodstoves	NumberNoncatalytic	133.90	0.00

**2.0 Emissions Summary**



### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction

### Mitigated Construction

[illegible]

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,541.196 0	343.9041	7,594.022 7	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7 924	318,056.7 678	431,883.5 602	343.7191	9.5008	443,307.7 672
Energy	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0 589	383,050.0 589	7.3418	7.0226	385,326.3 339
Mobile	879.2567	560.6893	7,568.138 8	21.6993	2,585.057 8	8.8682	2,593.925 9	645.0297	8.2713	653.3011		2,210,524. 2787	2,210,524. 2787	85.0059	78.7636	2,236,120. 9718
<b>Total</b>	<b>6,455.565 6</b>	<b>1,217.328 4</b>	<b>15,382.82 47</b>	<b>39.9376</b>	<b>2,585.057 8</b>	<b>975.2111</b>	<b>3,560.268 8</b>	<b>645.0297</b>	<b>974.6142</b>	<b>1,619.6440</b>	<b>113,826.7 924</b>	<b>2,911,631. 1054</b>	<b>3,025,457. 8978</b>	<b>436.0669</b>	<b>95.2869</b>	<b>3,064,755. 0729</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5,541.196 0	343.9041	7,594.022 7	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7 924	318,056.7 678	431,883.5 602	343.7191	9.5008	443,307.7 672
Energy	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0 589	383,050.0 589	7.3418	7.0226	385,326.3 339
Mobile	879.2567	560.6893	7,568.138 8	21.6993	2,585.057 8	8.8682	2,593.925 9	645.0297	8.2713	653.3011		2,210,524. 2787	2,210,524. 2787	85.0059	78.7636	2,236,120. 9718
<b>Total</b>	<b>6,455.565 6</b>	<b>1,217.328 4</b>	<b>15,382.82 47</b>	<b>39.9376</b>	<b>2,585.057 8</b>	<b>975.2111</b>	<b>3,560.268 8</b>	<b>645.0297</b>	<b>974.6142</b>	<b>1,619.6440</b>	<b>113,826.7 924</b>	<b>2,911,631. 1054</b>	<b>3,025,457. 8978</b>	<b>436.0669</b>	<b>95.2869</b>	<b>3,064,755. 0729</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	3/30/2021	3/29/2021	5	0	
2	Paving	Paving	5/15/2021	5/14/2021	5	0	
3	Demolition	Demolition	7/2/2021	7/1/2021	5	0	
4	Architectural Coating	Architectural Coating	7/14/2021	7/13/2021	5	0	
5	Grading	Grading	10/30/2021	10/29/2021	5	0	
6	Site Preparation	Site Preparation	10/31/2021	10/29/2021	5	0	

**Acres of Grading (Site Preparation Phase): 9000****Acres of Grading (Grading Phase): 46500****Acres of Paving: 0****Residential Indoor: 49,708,080; Residential Outdoor: 16,569,360; Non-Residential Indoor: 119,360,700; Non-Residential Outdoor: 39,786,900; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	44,597.00	16,280.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8,919.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]



**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Unmitigated Construction On-Site

[illegible]

### Unmitigated Construction Off-Site

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]

### Mitigated Construction Off-Site

[illegible]

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

### Unmitigated Construction On-Site

[illegible]

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Mitigated Construction On-Site

[illegible]



## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	879.2567	560.6893	7,568.1388	21.6993	2,585.0578	8.8682	2,593.9259	645.0297	8.2713	653.3011		2,210,524.2787	2,210,524.2787	85.0059	78.7636	2,236,120.9718
Unmitigated	879.2567	560.6893	7,568.1388	21.6993	2,585.0578	8.8682	2,593.9259	645.0297	8.2713	653.3011		2,210,524.2787	2,210,524.2787	85.0059	78.7636	2,236,120.9718

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	329,943.46	285,546.80	161,842.45	1,210,449,901	1,210,449,901
Total	329,943.46	285,546.80	161,842.45	1,210,449,901	1,210,449,901

## 4.3 Trip Type Information

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	11.10	0.00	0.00	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Apartments Mid Rise	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
City Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Elementary School	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Golf Course	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Government Office Building	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Hotel	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Industrial Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Office Park	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Regional Shopping Center	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457
Single Family Housing	0.516633	0.070991	0.195744	0.128836	0.026081	0.007842	0.011970	0.007437	0.000933	0.000540	0.028760	0.000776	0.003457

**5.0 Energy Detail**

Historical Energy Use: N

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0589	383,050.0589	7.3418	7.0226	385,326.3339
NaturalGas Unmitigated	35.1129	312.7350	220.6633	1.9153		24.2598	24.2598		24.2598	24.2598		383,050.0589	383,050.0589	7.3418	7.0226	385,326.3339

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	185548	2.0010	17.0996	7.2764	0.1092		1.3825	1.3825		1.3825	1.3825		21,829.22 93	21,829.22 93	0.4184	0.4002	21,958.94 95
Apartments Mid Rise	95869.4	1.0339	8.8350	3.7596	0.0564		0.7143	0.7143		0.7143	0.7143		11,278.75 20	11,278.75 20	0.2162	0.2068	11,345.77 60
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.939 6	4,334.939 6	0.0831	0.0795	4,360.699 9
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35847.7	0.3866	3.5145	2.9522	0.0211		0.2671	0.2671		0.2671	0.2671		4,217.377 6	4,217.377 6	0.0808	0.0773	4,242.439 4
Hotel	37813.5	0.4078	3.7072	3.1141	0.0222		0.2818	0.2818		0.2818	0.2818		4,448.642 1	4,448.642 1	0.0853	0.0816	4,475.078 1
Industrial Park	1.92306e +006	20.7389	188.5354	158.3697	1.1312		14.3287	14.3287		14.3287	14.3287		226,242.4 670	226,242.4 670	4.3363	4.1478	227,586.9 129
Office Park	96031.1	1.0356	9.4148	7.9084	0.0565		0.7155	0.7155		0.7155	0.7155		11,297.77 21	11,297.77 21	0.2165	0.2071	11,364.90 91
Regional Shopping Center	25844.2	0.2787	2.5337	2.1283	0.0152		0.1926	0.1926		0.1926	0.1926		3,040.488 6	3,040.488 6	0.0583	0.0557	3,058.556 7
Single Family Housing	819063	8.8330	75.4823	32.1201	0.4818		6.1028	6.1028		6.1028	6.1028		96,360.39 06	96,360.39 06	1.8469	1.7666	96,933.01 22
<b>Total</b>		<b>35.1129</b>	<b>312.7350</b>	<b>220.6633</b>	<b>1.9152</b>		<b>24.2598</b>	<b>24.2598</b>		<b>24.2598</b>	<b>24.2598</b>		<b>383,050.0 589</b>	<b>383,050.0 589</b>	<b>7.3418</b>	<b>7.0226</b>	<b>385,326.3 339</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	185.548	2.0010	17.0996	7.2764	0.1092		1.3825	1.3825		1.3825	1.3825		21,829.2293	21,829.2293	0.4184	0.4002	21,958.9495
Apartments Mid Rise	95.8694	1.0339	8.8350	3.7596	0.0564		0.7143	0.7143		0.7143	0.7143		11,278.7520	11,278.7520	0.2162	0.2068	11,345.7760
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	36.847	0.3974	3.6125	3.0345	0.0217		0.2746	0.2746		0.2746	0.2746		4,334.9396	4,334.9396	0.0831	0.0795	4,360.6999
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Government Office Building	35.8477	0.3866	3.5145	2.9522	0.0211		0.2671	0.2671		0.2671	0.2671		4,217.3776	4,217.3776	0.0808	0.0773	4,242.4394
Hotel	37.8135	0.4078	3.7072	3.1141	0.0222		0.2818	0.2818		0.2818	0.2818		4,448.6421	4,448.6421	0.0853	0.0816	4,475.0781
Industrial Park	1923.06	20.7389	188.5354	158.3697	1.1312		14.3287	14.3287		14.3287	14.3287		226,242.4670	226,242.4670	4.3363	4.1478	227,586.9129
Office Park	96.0311	1.0356	9.4148	7.9084	0.0565		0.7155	0.7155		0.7155	0.7155		11,297.7721	11,297.7721	0.2165	0.2071	11,364.9091
Regional Shopping Center	25.8442	0.2787	2.5337	2.1283	0.0152		0.1926	0.1926		0.1926	0.1926		3,040.4886	3,040.4886	0.0583	0.0557	3,058.5567
Single Family Housing	819.063	8.8330	75.4823	32.1201	0.4818		6.1028	6.1028		6.1028	6.1028		96,360.3906	96,360.3906	1.8469	1.7666	96,933.0122
<b>Total</b>		<b>35.1129</b>	<b>312.7350</b>	<b>220.6633</b>	<b>1.9152</b>		<b>24.2598</b>	<b>24.2598</b>		<b>24.2598</b>	<b>24.2598</b>		<b>383,050.0589</b>	<b>383,050.0589</b>	<b>7.3418</b>	<b>7.0226</b>	<b>385,326.3339</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5,541.196 0	343.9041	7,594.022 7	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7 924	318,056.7 678	431,883.5 602	343.7191	9.5008	443,307.7 672
Unmitigated	5,541.196 0	343.9041	7,594.022 7	16.3231		942.0831	942.0831		942.0831	942.0831	113,826.7 924	318,056.7 678	431,883.5 602	343.7191	9.5008	443,307.7 672

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	244.1773					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,062.051 6					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,193.136 5	327.9750	6,212.194 9	16.2496		934.4027	934.4027		934.4027	934.4027	113,826.7 924	315,554.8 235	429,381.6 159	341.3092	9.5008	440,745.5 740
Landscaping	41.8306	15.9291	1,381.827 8	0.0735		7.6803	7.6803		7.6803	7.6803		2,501.944 3	2,501.944 3	2.4100		2,562.193 3
<b>Total</b>	<b>5,541.196 0</b>	<b>343.9041</b>	<b>7,594.022 7</b>	<b>16.3231</b>		<b>942.0830</b>	<b>942.0830</b>		<b>942.0830</b>	<b>942.0830</b>	<b>113,826.7 924</b>	<b>318,056.7 678</b>	<b>431,883.5 602</b>	<b>343.7191</b>	<b>9.5008</b>	<b>443,307.7 672</b>

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	244.1773					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,062.0516					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3,193.1365	327.9750	6,212.1949	16.2496		934.4027	934.4027		934.4027	934.4027	113,826.7924	315,554.8235	429,381.6159	341.3092	9.5008	440,745.5740
Landscaping	41.8306	15.9291	1,381.8278	0.0735		7.6803	7.6803		7.6803	7.6803		2,501.9443	2,501.9443	2.4100		2,562.1933
<b>Total</b>	<b>5,541.1960</b>	<b>343.9041</b>	<b>7,594.0227</b>	<b>16.3231</b>		<b>942.0830</b>	<b>942.0830</b>		<b>942.0830</b>	<b>942.0830</b>	<b>113,826.7924</b>	<b>318,056.7678</b>	<b>431,883.5602</b>	<b>343.7191</b>	<b>9.5008</b>	<b>443,307.7672</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Santa Fe Springs GPU (Proposed GPU; 2040) - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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# **Santa Fe Springs 2040 General Plan and Targeted Zoning Code Update**

## **City of Santa Fe Springs, California**

### **Appendix D: Energy Consumption Information**

**Prepared by: MIG, Inc.**

**July 2021**

#### **Appendix Contents**

<a href="#">Sheet 1</a>	Energy Consumption Comparison Tables
<a href="#">Sheet 2</a>	EMFAC2021 LA County Fuel Efficiency Estimates for 2020 and 2040
<a href="#">Sheet 3</a>	EMFAC2021 Emission Inventory Data (2020)
<a href="#">Sheet 4</a>	EMFAC2021 Emission Inventory Data (2040)

**Santa Fe Springs 2040 General Plan and Targeted Zoning Code Update**  
**City of Santa Fe Springs, California**  
**Appendix D: Energy Consumption Information**

**Sheet 1: Energy Consumption Comparison Tables**

<b>Table 1: Estimated Operational Change in Electricity Consumption (2020 vs. 2040)</b>			
<b>Metric</b>	<b>Electricity Consumed (MWh/yr)</b>		
	<b>2020</b>	<b>2040</b>	<b>Change</b>
Total Electricity Consumption (MWh/yr)	1,118,292	1,145,205	26,913
Service Population (SP)	102,988	121,666	18,678
Electricity Consumption (MWh/yr/SP)	10.86	9.41	-1.45

<b>Table 2: Estimated Operational Change in Natural Gas Consumption (2020 vs. 2040)</b>			
<b>Metric</b>	<b>Natural Gas Consumed (MMBtu/yr)</b>		
	<b>2020</b>	<b>2040</b>	<b>Change</b>
Total Natural Gas Consumption (MMBtu/yr)	1,151,802	1,188,412	36,610
Service Population (SP)	102,988	121,666	18,678
Electricity Consumption (MMBTU/yr/SP)	11.18	9.77	-1.42

<b>Table 3: Estimated Operational Change in Vehicle Fuel Consumption (2020 vs. 2040)</b>			
<b>Metric</b>	<b>VMT and Vehicle Fuel Consumption</b>		
	<b>2020</b>	<b>2040</b>	<b>Change</b>
Total Diesel VMT	59,928,614	61,494,845	1,566,231
Total Gasoline VMT	1,119,691,972	1,148,955,056	29,263,084
Total VMT (miles/yr)	1,179,620,586	1,210,449,901	30,829,315
Diesel Fuel Efficiency (miles/gal)	7.70	9.49	1.78
Gasoline Fuel Efficiency (miles/gal)	22.67	28.37	5.70
Total Diesel Consumption (Gallons/yr)	7,779,899	6,481,382	-1,298,517
Total Gasoline Consumption (Gallons/yr)	49,391,909	40,495,173	-8,896,736
Total Fuel Consumption (Gallons/yr)	57,171,809	46,976,555	-10,195,253
Service Population (SP)	102,988	121,666	18,678
Fuel Consumption Efficiency (Gallons/yr/SP)	555	386	-169

# Santa Fe Springs 2040 General Plan and Targeted Zoning Code Update

## City of Santa Fe Springs, California

### Appendix D: Energy Consumption Information

#### Sheet 2: / EMFAC2021 LA County Fuel Efficiency Estimates for 2020 and 2040

Table 1: 2020 LA Co. Average Vehicle Fuel Efficiency (Gasoline)				
Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	92.05	3,745.62	1,020.50	3.67
LDA	3,618,462.08	122,125,248.49	4,528,273.21	26.97
LDT1	335,881.09	10,275,266.16	455,358.31	22.57
LDT2	1,459,242.77	50,281,442.47	2,354,665.27	21.35
LHDT1	123,820.91	3,960,443.34	329,696.92	12.01
LHDT2	19,151.93	591,621.96	55,442.98	10.67
MCY	132,609.16	722,576.63	18,264.43	39.56
MDV	898,956.39	28,385,804.33	1,625,375.35	17.46
MH	17,702.76	136,392.86	28,286.16	4.82
MHDT	16,535.26	749,538.57	152,731.64	4.91
OBUS	4,173.64	152,897.55	31,488.92	4.86
SBUS	1,217.60	45,646.74	5,283.42	8.64
UBUS	436.06	30,964.39	6,789.59	4.56
TOTAL	6,628,281.71	217,461,589.12	9,592,676.70	22.67

Table 2: 2020 LA Co. Average Vehicle Fuel Efficiency (Diesel)				
Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	46444.55	6121646.89	1064173.22	5.75
LDA	11169.26	299434.77	7731.36	38.73
LDT1	176.22	3167.03	138.19	22.92
LDT2	3719.00	140384.79	4837.62	29.02
LHDT1	42375.57	1466290.67	74361.13	19.72
LHDT2	18246.87	632277.25	38705.21	16.34
MCY	0.00	0.00	0.00	0.00
MDV	9773.60	335669.95	15243.19	22.02
MH	4675.05	40148.10	4023.94	9.98
MHDT	58322.87	2397274.31	272530.70	8.80
OBUS	2122.18	164834.91	23960.95	6.88
SBUS	1752.17	36544.13	5039.45	7.25
UBUS	11.10	1395.82	232.42	6.01
TOTAL	198788.43	11639068.61	1510977.38	7.70

Table 3: 2040 LA Co. Average Vehicle Fuel Efficiency (Gasoline)				
Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	11.61	1,330.85	257.75	5.16
LDA	2,974,803.48	110,287,993.23	3,267,986.84	33.75
LDT1	270,851.05	9,629,882.71	334,255.50	28.81
LDT2	1,945,484.33	73,081,320.60	2,657,598.69	27.50
LHDT1	98,862.39	3,473,696.02	215,095.39	16.15
LHDT2	14,138.47	472,523.65	33,070.51	14.29
MCY	190,132.27	1,104,145.80	26,367.79	41.87
MDV	1,126,395.82	39,832,555.88	1,760,368.39	22.63
MH	12,853.32	137,877.54	28,486.65	4.84
MHDT	8,386.48	395,787.18	67,646.71	5.85
OBUS	2,066.62	55,803.37	9,922.86	5.62
SBUS	1,266.40	52,990.14	5,508.23	9.62
UBUS	175.59	10,179.95	691.48	14.72
TOTAL	6,645,427.83	238,536,086.93	8,407,256.78	28.37

Table 4: 2040 LA Co. Average Vehicle Fuel Efficiency (Diesel)				
Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	63831.52	8565802.40	1162257.48	7.37
LDA	2034.16	68509.30	1389.99	49.29
LDT1	2.63	102.03	3.79	26.92
LDT2	7057.74	272384.23	7703.67	35.36
LHDT1	69781.02	2469950.24	115442.35	21.40
LHDT2	33271.91	1139367.68	62224.03	18.31
MCY	0.00	0.00	0.00	0.00
MDV	11880.69	426096.67	15730.37	27.09
MH	7435.37	73183.30	7358.30	9.95
MHDT	52935.30	2082446.37	214750.54	9.70
OBUS	2286.23	171473.73	22265.97	7.70
SBUS	580.06	12171.35	1498.91	8.12
UBUS	0.00	0.00	0.00	0.00
TOTAL	251096.63	15281487.32	1610625.39	9.49

**Santa Fe Springs 2040 General Plan and Targeted Zoning Code Update**  
**City of Santa Fe Springs, California**  
**Appendix D: Energy Consumption Information**

**Sheet 3: EMFAC2021 Emission Inventory Data (2020)**

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Cor
Los Angeles	2020	HHDT	Aggregate	Aggregate	Gasoline	92.05271	3745.625	3745.625	0	1841.791	0
Los Angeles	2020	HHDT	Aggregate	Aggregate	Diesel	46444.55	6121647	6121647	0	704758.5	0
Los Angeles	2020	HHDT	Aggregate	Aggregate	Natural Ga	4521.567	319134.4	319134.4	0	30926.88	0
Los Angeles	2020	LDA	Aggregate	Aggregate	Gasoline	3556333	1.21E+08	1.21E+08	0	16630626	0
Los Angeles	2020	LDA	Aggregate	Aggregate	Diesel	11169.26	299434.8	299434.8	0	47111.7	0
Los Angeles	2020	LDA	Aggregate	Aggregate	Electricity	87657.05	3160977	0	3160977	443176.8	1220398
Los Angeles	2020	LDA	Aggregate	Aggregate	Plug-in Hyk	62129.57	2544892	1364300	1180593	256905.8	356574.2
Los Angeles	2020	LDT1	Aggregate	Aggregate	Gasoline	335858.2	10274733	10274733	0	1479614	0
Los Angeles	2020	LDT1	Aggregate	Aggregate	Diesel	176.215	3167.032	3167.032	0	541.7562	0
Los Angeles	2020	LDT1	Aggregate	Aggregate	Electricity	600.9314	14817	0	14817	2687.488	5720.584
Los Angeles	2020	LDT1	Aggregate	Aggregate	Plug-in Hyk	22.92973	1024.382	533.499	490.883	94.81444	148.2613
Los Angeles	2020	LDT2	Aggregate	Aggregate	Gasoline	1455803	50202258	50202258	0	6825271	0
Los Angeles	2020	LDT2	Aggregate	Aggregate	Diesel	3718.996	140384.8	140384.8	0	18102.53	0
Los Angeles	2020	LDT2	Aggregate	Aggregate	Electricity	419.4469	12798.87	0	12798.87	2128.715	4941.421
Los Angeles	2020	LDT2	Aggregate	Aggregate	Plug-in Hyk	3439.867	150609.2	79184.55	71424.6	14223.85	21572.36
Los Angeles	2020	LHDT1	Aggregate	Aggregate	Gasoline	123820.9	3960443	3960443	0	1844747	0
Los Angeles	2020	LHDT1	Aggregate	Aggregate	Diesel	42375.57	1466291	1466291	0	533031.4	0
Los Angeles	2020	LHDT2	Aggregate	Aggregate	Gasoline	19151.93	591622	591622	0	285335.2	0
Los Angeles	2020	LHDT2	Aggregate	Aggregate	Diesel	18246.87	632277.2	632277.2	0	229522.7	0
Los Angeles	2020	MCY	Aggregate	Aggregate	Gasoline	132609.2	722576.6	722576.6	0	265218.3	0
Los Angeles	2020	MDV	Aggregate	Aggregate	Gasoline	898956.4	28385804	28385804	0	4140443	0
Los Angeles	2020	MDV	Aggregate	Aggregate	Diesel	9773.598	335670	335670	0	46817.88	0
Los Angeles	2020	MDV	Aggregate	Aggregate	Electricity	607.4796	19246.21	0	19246.21	3122.255	7430.625
Los Angeles	2020	MDV	Aggregate	Aggregate	Plug-in Hyk	3222.51	126350.8	67744.06	58606.73	13325.08	17700.98
Los Angeles	2020	MH	Aggregate	Aggregate	Gasoline	17702.76	136392.9	136392.9	0	1770.985	0
Los Angeles	2020	MH	Aggregate	Aggregate	Diesel	4675.054	40148.1	40148.1	0	467.5054	0
Los Angeles	2020	MHDT	Aggregate	Aggregate	Gasoline	16535.26	749538.6	749538.6	0	330837.5	0
Los Angeles	2020	MHDT	Aggregate	Aggregate	Diesel	58322.87	2397274	2397274	0	709342.2	0
Los Angeles	2020	MHDT	Aggregate	Aggregate	Natural Ga	629.8163	31092.51	31092.51	0	5558.862	0
Los Angeles	2020	OBUS	Aggregate	Aggregate	Gasoline	4173.636	152897.5	152897.5	0	83506.11	0
Los Angeles	2020	OBUS	Aggregate	Aggregate	Diesel	2122.179	164834.9	164834.9	0	27264.69	0
Los Angeles	2020	OBUS	Aggregate	Aggregate	Natural Ga	324.525	20132.78	20132.78	0	2888.273	0
Los Angeles	2020	SBUS	Aggregate	Aggregate	Gasoline	1217.6	45646.74	45646.74	0	4870.4	0
Los Angeles	2020	SBUS	Aggregate	Aggregate	Diesel	1752.169	36544.13	36544.13	0	25371.41	0
Los Angeles	2020	SBUS	Aggregate	Aggregate	Natural Ga	1276.424	32824.58	32824.58	0	18482.62	0
Los Angeles	2020	UBUS	Aggregate	Aggregate	Gasoline	436.0638	30964.39	30964.39	0	1744.255	0
Los Angeles	2020	UBUS	Aggregate	Aggregate	Diesel	11.09552	1395.817	1395.817	0	44.38207	0
Los Angeles	2020	UBUS	Aggregate	Aggregate	Electricity	53.56527	2419.088	0	2419.088	214.2611	5077.743
Los Angeles	2020	UBUS	Aggregate	Aggregate	Natural Ga	3855.282	414937	414937	0	15421.13	0

for Fuel Consumption

NOx_RUNE	NOx_IDLE	NOx_STRE	NOx_TOTE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_TO	PM2.5_PV	PM2.5_PV	PM2.5_TO	PM10_RU
0.03887	0	0.001428	0.040299	1.36E-05	0	5.88E-06	1.95E-05	2.06E-05	0.000151	0.000192	1.47E-05
24.39682	3.816248	1.548894	29.76196	0.311317	0.005539	0	0.316855	0.059719	0.203509	0.580083	0.325393
0.446274	0.051164	0	0.497438	0.001064	7.4E-05	0	0.001138	0.003166	0.018128	0.022433	0.001158
9.04242	0	5.457773	14.50019	0.222388	0	0.0422	0.264589	0.266232	0.4088	0.939621	0.241856
0.111261	0	0	0.111261	0.012069	0	0	0.012069	0.00066	0.001022	0.013752	0.012615
0	0	0	0	0	0	0	0	0.006969	0.00532	0.012289	0
0.010468	0	0.031572	0.042039	0.002805	0	0.000729	0.003534	0.005611	0.004034	0.013178	0.00305
3.003753	0	0.850557	3.854311	0.036116	0	0.006238	0.042354	0.022652	0.043265	0.108271	0.039272
0.005355	0	0	0.005355	0.000908	0	0	0.000908	6.98E-06	1.53E-05	0.00093	0.000949
0	0	0	0	0	0	0	0	3.27E-05	2.52E-05	5.79E-05	0
4.09E-06	0	1.17E-05	1.57E-05	9.4E-07	0	2.36E-07	1.18E-06	2.26E-06	1.62E-06	5.05E-06	1.02E-06
7.385823	0	3.47343	10.85925	0.098645	0	0.017329	0.115974	0.110677	0.201696	0.428347	0.10728
0.012022	0	0	0.012022	0.001438	0	0	0.001438	0.000309	0.000544	0.002291	0.001503
0	0	0	0	0	0	0	0	2.82E-05	2.15E-05	4.97E-05	0
0.000608	0	0.001748	0.002356	0.000167	0	4.22E-05	0.000209	0.000332	0.000238	0.000779	0.000181
1.19959	0.005478	1.403899	2.608967	0.00537	0	0.000928	0.006299	0.008731	0.119182	0.134212	0.005839
3.725351	0.108807	0	3.834157	0.052997	0.001283	0	0.054279	0.004849	0.044125	0.103254	0.055393
0.175768	0.000851	0.218575	0.395194	0.000719	0	0.000117	0.000836	0.001304	0.020771	0.022911	0.000782
1.374174	0.046645	0	1.420819	0.021658	0.000548	0	0.022206	0.002091	0.022198	0.046495	0.022637
0.494123	0	0.046067	0.540189	0.001645	0	0.001134	0.00278	0.000797	0.003345	0.006921	0.001754
7.14011	0	2.901984	10.04209	0.061718	0	0.011982	0.0737	0.06258	0.117976	0.254256	0.067037
0.058085	0	0	0.058085	0.004381	0	0	0.004381	0.00074	0.00134	0.006461	0.004579
0	0	0	0	0	0	0	0	4.24E-05	3.23E-05	7.47E-05	0
0.00052	0	0.001638	0.002157	0.000155	0	4.28E-05	0.000198	0.000279	0.0002	0.000676	0.000168
0.106285	0	0.000723	0.107009	0.000293	0	1.31E-06	0.000294	0.000451	0.002295	0.00304	0.000318
0.191416	0	0	0.191416	0.005257	0	0	0.005257	0.000177	0.000671	0.006105	0.005494
0.644514	0.001615	0.16801	0.814139	0.000855	0	0.000216	0.001071	0.002479	0.01261	0.01616	0.00093
7.099697	1.428775	0.884261	9.412733	0.1565	0.005769	0	0.162269	0.007928	0.040411	0.210607	0.163576
0.004699	0.004724	0	0.009424	2.42E-05	1.08E-05	0	3.5E-05	0.000103	0.000522	0.00066	2.63E-05
0.104627	0.000298	0.036845	0.14177	0.000122	0	2.52E-05	0.000147	0.000506	0.002597	0.003249	0.000132
0.632244	0.058625	0.037614	0.728484	0.014932	0.000189	0	0.015121	0.000545	0.004333	0.019999	0.015607
0.003697	0.000562	0	0.004259	1.4E-05	1.11E-06	0	1.51E-05	6.66E-05	0.000342	0.000424	1.52E-05
0.029176	0.001237	0.003737	0.034149	6.16E-05	0	2.73E-06	6.43E-05	0.000101	0.000825	0.00099	6.7E-05
0.407067	0.067917	0.003535	0.47852	0.002391	0.000106	0	0.002497	0.000121	0.00066	0.003278	0.002499
0.035957	0.007447	0	0.043404	0.000149	1.52E-05	0	0.000164	0.000109	0.000593	0.000866	0.000162
0.008206	0	0.001711	0.009918	2.92E-05	0	7.36E-07	2.99E-05	9.35E-05	0.001255	0.001379	3.18E-05
0.001676	0	0	0.001676	9.52E-06	0	0	9.52E-06	1.27E-05	5.92E-05	8.14E-05	9.95E-06
0	0	0	0	0	0	0	0	1.74E-05	5.09E-05	6.83E-05	0
0.663711	0	0	0.663711	0.00044	0	0	0.00044	0.003836	0.01759	0.021865	0.000459

PM10_IDL	PM10_STR	PM10_TOI	PM10_PM'	PM10_PM	PM10_TOI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CO2_TOTE	CH4_RUNE	CH4_IDLEX	
	0	6.29E-06	2.1E-05	8.26E-05	0.000433	0.000536	9.542195	0	0.135465	9.67766	0.001196	0
0.005789		0	0.331182	0.238878	0.581453	1.151513	11232.79	680.0942	0	11912.88	0.023585	0.01268
8.05E-05		0	0.001238	0.012664	0.051795	0.065698	464.3895	43.36399	0	507.7535	0.626346	0.131877
	0	0.045891	0.287748	1.064929	1.168	2.520677	41091.94	0	1376.398	42468.34	0.579769	0
	0	0	0.012615	0.002641	0.002921	0.018176	86.54866	0	0	86.54866	0.000884	0
	0	0	0	0.027875	0.0152	0.043075	0	0	0	0	0	0
	0	0.000793	0.003843	0.022442	0.011524	0.03781	455.2483	0	19.29139	474.5396	0.001633	0
	0	0.006783	0.046055	0.090608	0.123615	0.260278	4162.521	0	155.5832	4318.104	0.167014	0
	0	0	0.000949	2.79E-05	4.36E-05	0.001021	1.547019	0	0	1.547019	5.41E-05	0
	0	0	0	0.000131	7.21E-05	0.000203	0	0	0	0	0	0
	0	2.56E-07	1.28E-06	9.03E-06	4.63E-06	1.49E-05	0.178021	0	0.007936	0.185957	6.43E-07	0
	0	0.018846	0.126126	0.442708	0.576275	1.145109	21580.88	0	721.3639	22302.24	0.315582	0
	0	0	0.001503	0.001238	0.001553	0.004294	54.15473	0	0	54.15473	0.000174	0
	0	0	0	0.000113	6.15E-05	0.000174	0	0	0	0	0	0
	0	4.59E-05	0.000227	0.001328	0.000681	0.002236	26.42281	0	1.283554	27.70636	9.53E-05	0
	0	0.001008	0.006847	0.034925	0.34052	0.382292	3056.988	16.77038	52.84972	3126.608	0.042283	0.016596
0.001341		0	0.056734	0.019396	0.126072	0.202202	826.0193	6.416144	0	832.4355	0.01052	0.000238
	0	0.000127	0.000909	0.005217	0.059346	0.065472	514.5087	3.001509	8.271125	525.7813	0.004888	0.002582
0.000573		0	0.02321	0.008364	0.063424	0.094998	428.8706	4.414806	0	433.2854	0.004263	0.000103
	0	0.001201	0.002954	0.003186	0.009558	0.015698	158.0436	0	15.16302	173.2067	0.162883	0
	0	0.013017	0.080055	0.25032	0.337073	0.667448	14877.75	0	536.1354	15413.89	0.313804	0
	0	0	0.004579	0.00296	0.003828	0.011367	170.6399	0	0	170.6399	0.00043	0
	0	0	0	0.00017	9.23E-05	0.000262	0	0	0	0	0	0
	0	4.66E-05	0.000215	0.001114	0.000572	0.001901	22.60527	0	1.498562	24.10383	8.06E-05	0
	0	1.41E-06	0.000319	0.001804	0.006556	0.008679	268.1804	0	0.065166	268.2456	0.004437	0
	0	0	0.005494	0.000708	0.001917	0.00812	45.04602	0	0	45.04602	0.000167	0
	0	0.000235	0.001165	0.009915	0.036029	0.047108	1420.414	10.18075	17.80251	1448.397	0.018802	0.004468
0.006029		0	0.169606	0.031711	0.115459	0.316775	2896.74	154.1046	0	3050.844	0.01236	0.001162
1.18E-05		0	3.81E-05	0.000411	0.001492	0.001941	30.00683	3.755296	0	33.76213	0.017482	0.013445
	0	2.74E-05	0.00016	0.002022	0.007419	0.009601	293.8633	1.782951	2.971989	298.6182	0.002652	0.000874
0.000197		0	0.015804	0.00218	0.01238	0.030365	259.8793	8.351527	0	268.2308	0.001444	0.00016
1.21E-06		0	1.64E-05	0.000266	0.000977	0.00126	19.99704	0.431539	0	20.42858	0.011593	0.001663
	0	2.97E-06	6.99E-05	0.000403	0.002357	0.00283	46.2195	3.569838	0.31479	50.10413	0.000921	0.003155
0.000111		0	0.00261	0.000483	0.001887	0.00498	51.92063	4.493422	0	56.41405	0.000324	1.75E-05
1.66E-05		0	0.000179	0.000434	0.001695	0.002308	63.90688	5.785731	0	69.69261	0.180683	0.021847
	0	8.01E-07	3.26E-05	0.000374	0.003586	0.003993	64.20377	0	0.183836	64.38761	0.000174	0
	0	0	9.95E-06	5.06E-05	0.000169	0.00023	2.601776	0	0	2.601776	8.18E-06	0
	0	0	0	6.96E-05	0.000145	0.000215	0	0	0	0	0	0
	0	0	0.000459	0.015345	0.050256	0.06606	1172.209	0	0	1172.209	1.328972	0

CH4_STRE	CH4_TOTE	N2O_RUNI	N2O_IDLE	N2O_STRE	N2O_TOTE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_TOTE	ROG_DIUR	ROG_HOT
7.37E-08	0.001196	0.001018	0	3.89E-05	0.001057	0.007913	0	3.82E-07	0.007913	0.000981	0.000335
0	0.036265	1.769731	0.107149	0	1.87688	0.507781	0.273002	0	0.780783	0	0
0	0.758223	0.094669	0.00884	0	0.103509	0.019534	0.002384	0	0.021918	0	0
1.528309	2.108077	0.824733	0	0.632763	1.457496	2.427047	0	7.422684	9.849731	6.405031	1.9379
0	0.000884	0.013636	0	0	0.013636	0.019028	0	0	0.019028	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.011353	0.012986	0.001893	0	0.005703	0.007595	0.00516	0	0.046117	0.051277	0.034906	0.011054
0.23292	0.399935	0.190452	0	0.071908	0.26236	0.778026	0	1.279657	2.057684	1.421853	0.393885
0	5.41E-05	0.000244	0	0	0.000244	0.001164	0	0	0.001164	0	0
0	0	0	0	0	0	0	0	0	0	0	0
4.22E-06	4.86E-06	7.5E-07	0	2.13E-06	2.88E-06	2.02E-06	0	1.7E-05	1.9E-05	9.41E-06	2.89E-06
0.760805	1.076387	0.517716	0	0.323551	0.841266	1.344296	0	3.750925	5.095221	2.617248	0.755578
0	0.000174	0.008532	0	0	0.008532	0.003748	0	0	0.003748	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.000632	0.000727	0.000111	0	0.000319	0.00043	0.000299	0	0.002553	0.002853	0.001535	0.000458
0.077754	0.136633	0.064345	0.000412	0.105408	0.170165	0.216908	0.062688	0.396469	0.676064	0.441913	0.12469
0	0.010758	0.13014	0.001011	0	0.131151	0.22648	0.005127	0	0.231607	0	0
0.012043	0.019514	0.009805	6.34E-05	0.016163	0.026032	0.023753	0.009742	0.061179	0.094674	0.067731	0.018477
0	0.004365	0.067569	0.000696	0	0.068264	0.091775	0.002208	0	0.093983	0	0
0.054686	0.217569	0.033185	0	0.002695	0.03588	1.111625	0	0.415647	1.527272	0.620811	1.057052
0.626393	0.940197	0.438967	0	0.227378	0.666346	1.553721	0	3.369444	4.923165	1.936705	0.571106
0	0.00043	0.026884	0	0	0.026884	0.009261	0	0	0.009261	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.000586	0.000667	9.3E-05	0	0.000293	0.000386	0.000256	0	0.002392	0.002648	0.001583	0.000456
8.07E-05	0.004517	0.005508	0	7.2E-05	0.00558	0.022688	0	0.000377	0.023065	0.112552	0.03488
0	0.000167	0.007097	0	0	0.007097	0.003603	0	0	0.003603	0	0
0.0189	0.042171	0.028884	0.000121	0.011568	0.040573	0.095626	0.018096	0.107814	0.221536	0.061786	0.016739
0	0.013522	0.456382	0.024279	0	0.480662	0.266107	0.025017	0	0.291124	0	0
0	0.030927	0.006117	0.000766	0	0.006883	0.00025	0.000192	0	0.000442	0	0
0.003345	0.006872	0.004788	2.33E-05	0.002674	0.007484	0.013054	0.003417	0.018107	0.034578	0.011332	0.003232
0	0.001604	0.040944	0.001316	0	0.04226	0.031098	0.003436	0	0.034534	0	0
0	0.013256	0.004077	8.8E-05	0	0.004164	0.000166	2.38E-05	0	0.000189	0	0
0.000372	0.004447	0.001522	0.000109	0.000325	0.001956	0.004653	0.014187	0.002201	0.021041	0.002467	0.000728
0	0.000341	0.00818	0.000708	0	0.008888	0.006974	0.000376	0	0.00735	0	0
0	0.20253	0.013028	0.001179	0	0.014207	0.002582	0.000312	0	0.002894	0	0
0.000218	0.000392	0.000699	0	0.000158	0.000857	0.000578	0	0.000933	0.001511	0.000377	0.000125
0	8.18E-06	0.00041	0	0	0.00041	0.000176	0	0	0.000176	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	1.328972	0.238962	0	0	0.238962	0.068811	0	0	0.068811	0	0

ROG_RUNI	ROG_TOTA	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_TOTE	TOG_DIUR	TOG_HOTS	TOG_RUNI	TOG_TOTA	CO_RUNE	CO_IDLE
0.002304	0.011534	0.010731	0	4.18E-07	0.010731	0.000981	0.000335	0.002304	0.014352	0.330987	0
0	0.780783	0.57807	0.310792	0	0.888862	0	0	0	0.888862	1.974385	3.390732
0	0.021918	0.651292	0.135159	0	0.786451	0	0	0	0.786451	3.497141	0.312063
4.681258	22.87392	3.538201	0	8.126819	11.66502	6.405031	1.9379	4.681258	24.68921	143.0366	0
0	0.019028	0.021662	0	0	0.021662	0	0	0	0.021662	0.167421	0
0	0	0	0	0	0	0	0	0	0	0	0
0.009764	0.107001	0.007529	0	0.050492	0.058021	0.034906	0.011054	0.009764	0.113745	0.741138	0
1.142676	5.016097	1.133615	0	1.401047	2.534662	1.421853	0.393885	1.142676	5.493076	31.63762	0
0	0.001164	0.001325	0	0	0.001325	0	0	0	0.001325	0.006327	0
0	0	0	0	0	0	0	0	0	0	0	0
2.82E-06	3.42E-05	2.94E-06	0	1.86E-05	2.16E-05	9.41E-06	2.89E-06	2.82E-06	3.67E-05	0.00029	0
1.918284	10.38633	1.960296	0	4.106779	6.067074	2.617248	0.755578	1.918284	11.35818	74.66357	0
0	0.003748	0.004267	0	0	0.004267	0	0	0	0.004267	0.029591	0
0	0	0	0	0	0	0	0	0	0	0	0
0.000447	0.005293	0.000437	0	0.002796	0.003233	0.001535	0.000458	0.000447	0.005673	0.043016	0
0.626617	1.869284	0.314664	0.091451	0.434045	0.84016	0.441913	0.12469	0.626617	2.033379	6.65429	0.510024
0	0.231607	0.257833	0.005837	0	0.26367	0	0	0	0.26367	0.712708	0.042495
0.09349	0.274372	0.03466	0.014215	0.066983	0.115859	0.067731	0.018477	0.09349	0.295557	0.784915	0.07901
0	0.093983	0.10448	0.002513	0	0.106993	0	0	0	0.106993	0.264822	0.018298
1.063053	4.268189	1.319617	0	0.451698	1.771315	0.620811	1.057052	1.063053	4.512232	11.85562	0
1.460759	8.891735	2.164225	0	3.688686	5.852911	1.936705	0.571106	1.460759	9.82148	62.11838	0
0	0.009261	0.010543	0	0	0.010543	0	0	0	0.010543	0.125561	0
0	0	0	0	0	0	0	0	0	0	0	0
0.000459	0.005146	0.000374	0	0.002619	0.002993	0.001583	0.000456	0.000459	0.005491	0.036801	0
0.000717	0.171214	0.032113	0	0.000412	0.032526	0.112552	0.03488	0.000717	0.180675	0.729674	0
0	0.003603	0.004102	0	0	0.004102	0	0	0	0.004102	0.015849	0
0.12185	0.421911	0.139537	0.026406	0.118042	0.283986	0.061786	0.016739	0.12185	0.48436	2.497985	0.259683
0	0.291124	0.302943	0.02848	0	0.331423	0	0	0	0.331423	0.908095	0.461106
0	0.000442	0.017842	0.013722	0	0.031564	0	0	0	0.031564	0.0836	0.019998
0.012477	0.06162	0.019045	0.004986	0.019825	0.043855	0.011332	0.003232	0.012477	0.070897	0.339579	0.026469
0	0.034534	0.035402	0.003912	0	0.039314	0	0	0	0.039314	0.104989	0.039931
0	0.000189	0.011831	0.001698	0	0.013529	0	0	0	0.013529	0.058234	0.001987
0.001658	0.025894	0.006789	0.020701	0.00241	0.0299	0.002467	0.000728	0.001658	0.034753	0.093134	0.1098
0	0.00735	0.007939	0.000428	0	0.008367	0	0	0	0.008367	0.016191	0.004777
0	0.002894	0.1844	0.022297	0	0.206697	0	0	0	0.206697	0.640269	0.027532
0.000231	0.002243	0.000844	0	0.001021	0.001865	0.000377	0.000125	0.000231	0.002597	0.014038	0
0	0.000176	0.000201	0	0	0.000201	0	0	0	0.000201	0.000223	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0.068811	1.413081	0	0	1.413081	0	0	0	1.413081	16.03774	0



CO_STREX	CO_TOTEX	SOx_RUNE	SOx_IDLE	SOx_STREX	SOx_TOTEX	NH3_RUNE	Fuel Consumption
0.008281	0.339268	9.43E-05	0	1.34E-06	9.57E-05	0.00017	1.020497
0	5.365118	0.106368	0.00644	0	0.112808	1.218357	1064.173
0	3.809204	0	0	0	0	0.288408	58.68856
69.72428	212.7609	0.406236	0	0.013607	0.419843	4.237451	4478.234
0	0.167421	0.00082	0	0	0.00082	0.001023	7.731358
0	0	0	0	0	0	0	0
0.350778	1.091917	0.004501	0	0.000191	0.004691	0.055351	50.03961
12.32216	43.95978	0.041151	0	0.001538	0.042689	0.422653	455.3387
0	0.006327	1.47E-05	0	0	1.47E-05	1.08E-05	0.138195
0	0	0	0	0	0	0	0
0.000129	0.000419	1.76E-06	0	7.85E-08	1.84E-06	2.47E-05	0.019609
33.94936	108.6129	0.213349	0	0.007131	0.22048	1.888036	2351.744
0	0.029591	0.000513	0	0	0.000513	0.00048	4.837621
0	0	0	0	0	0	0	0
0.019421	0.062437	0.000261	0	1.27E-05	0.000274	0.003647	2.921601
6.059832	13.22415	0.030221	0.000166	0.000522	0.03091	0.195402	329.6969
0	0.755203	0.007827	6.08E-05	0	0.007888	0.233045	74.36113
0.949129	1.813054	0.005086	2.97E-05	8.18E-05	0.005198	0.029304	55.44298
0	0.28312	0.004064	4.18E-05	0	0.004106	0.106738	38.70521
2.24401	14.09963	0.001562	0	0.00015	0.001712	0.00687	18.26443
24.06721	86.18559	0.147082	0	0.0053	0.152382	1.064183	1625.375
0	0.125561	0.001617	0	0	0.001617	0.001147	15.24319
0	0	0	0	0	0	0	0
0.018194	0.054995	0.000223	0	1.48E-05	0.000238	0.003136	2.541719
0.007809	0.737483	0.002651	0	6.44E-07	0.002652	0.006598	28.28616
0	0.015849	0.000427	0	0	0.000427	0.005445	4.023943
2.325137	5.082804	0.014042	0.000101	0.000176	0.014319	0.037048	152.7316
0	1.369201	0.02743	0.001459	0	0.02889	0.434193	272.5307
0	0.103598	0	0	0	0	0.03633	3.902387
0.374051	0.740098	0.002905	1.76E-05	2.94E-05	0.002952	0.007574	31.48892
0	0.14492	0.002461	7.91E-05	0	0.00254	0.031465	23.96095
0	0.060221	0	0	0	0	0.023524	2.361232
0.053487	0.256421	0.000457	3.53E-05	3.11E-06	0.000495	0.002264	5.283418
0	0.020968	0.000492	4.26E-05	0	0.000534	0.002513	5.039445
0	0.667801	0	0	0	0	0.038354	8.055403
0.016363	0.030401	0.000635	0	1.82E-06	0.000637	0.001536	6.789593
0	0.000223	2.47E-05	0	0	2.47E-05	0.00025	0.232416
0	0	0	0	0	0	0	0
0	16.03774	0	0	0	0	0.443668	135.4895

**Santa Fe Springs 2040 General Plan and Targeted Zoning Code Update**  
**City of Santa Fe Springs, California**  
**Appendix D: Energy Consumption Information**

**Sheet 4: EMFAC2021 Emission Inventory Data (2040)**

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2040

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Cor
Los Angele	2040	HHDT	Aggregate	Aggregate	Gasoline	11.61197	1330.853	1330.853	0	232.3323	0
Los Angele	2040	HHDT	Aggregate	Aggregate	Diesel	63831.52	8565802	8565802	0	1043533	0
Los Angele	2040	HHDT	Aggregate	Aggregate	Electricity	14240.87	1423416	0	1423416	176831.3	2547809
Los Angele	2040	HHDT	Aggregate	Aggregate	Natural Ga	6589.985	404273.4	404273.4	0	45955.3	0
Los Angele	2040	LDA	Aggregate	Aggregate	Gasoline	2843464	1.08E+08	1.08E+08	0	13256176	0
Los Angele	2040	LDA	Aggregate	Aggregate	Diesel	2034.158	68509.3	68509.3	0	9049.103	0
Los Angele	2040	LDA	Aggregate	Aggregate	Electricity	367967.5	14875774	0	14875774	1750062	5743276
Los Angele	2040	LDA	Aggregate	Aggregate	Plug-in Hyt	131339.5	5133763	2121249	3012514	543088.7	909869
Los Angele	2040	LDT1	Aggregate	Aggregate	Gasoline	266066.3	9550747	9550747	0	1195130	0
Los Angele	2040	LDT1	Aggregate	Aggregate	Diesel	2.628604	102.0349	102.0349	0	12.39651	0
Los Angele	2040	LDT1	Aggregate	Aggregate	Electricity	6223.9	258346	0	258346	29857.99	99742.89
Los Angele	2040	LDT1	Aggregate	Aggregate	Plug-in Hyt	4784.702	194012.8	79136.02	114876.8	19784.74	34696.21
Los Angele	2040	LDT2	Aggregate	Aggregate	Gasoline	1897612	72309610	72309610	0	8825772	0
Los Angele	2040	LDT2	Aggregate	Aggregate	Diesel	7057.74	272384.2	272384.2	0	33114.22	0
Los Angele	2040	LDT2	Aggregate	Aggregate	Electricity	67239.28	1925471	0	1925471	322514.8	743390.9
Los Angele	2040	LDT2	Aggregate	Aggregate	Plug-in Hyt	47872.56	1881771	771710.8	1110061	197953	335271.4
Los Angele	2040	LHDT1	Aggregate	Aggregate	Gasoline	98862.39	3473696	3473696	0	1472902	0
Los Angele	2040	LHDT1	Aggregate	Aggregate	Diesel	69781.02	2469950	2469950	0	877757.5	0
Los Angele	2040	LHDT1	Aggregate	Aggregate	Electricity	74407.73	3512316	0	3512316	1037988	1970077
Los Angele	2040	LHDT2	Aggregate	Aggregate	Gasoline	14138.47	472523.6	472523.6	0	210642.1	0
Los Angele	2040	LHDT2	Aggregate	Aggregate	Diesel	33271.91	1139368	1139368	0	418518.7	0
Los Angele	2040	LHDT2	Aggregate	Aggregate	Electricity	19968.07	902056	0	902056	264405.1	506242.1
Los Angele	2040	MCY	Aggregate	Aggregate	Gasoline	190132.3	1104146	1104146	0	380264.5	0
Los Angele	2040	MDV	Aggregate	Aggregate	Gasoline	1096623	39378930	39378930	0	5066220	0
Los Angele	2040	MDV	Aggregate	Aggregate	Diesel	11880.69	426096.7	426096.7	0	54975.16	0
Los Angele	2040	MDV	Aggregate	Aggregate	Electricity	61808.78	1753963	0	1753963	295545.7	677174.5
Los Angele	2040	MDV	Aggregate	Aggregate	Plug-in Hyt	29772.43	1104576	453626.3	650949.7	123109	196606.2
Los Angele	2040	MH	Aggregate	Aggregate	Gasoline	12853.32	137877.5	137877.5	0	1285.846	0
Los Angele	2040	MH	Aggregate	Aggregate	Diesel	7435.371	73183.3	73183.3	0	743.5371	0
Los Angele	2040	MHDT	Aggregate	Aggregate	Gasoline	8386.482	395787.2	395787.2	0	167796.7	0
Los Angele	2040	MHDT	Aggregate	Aggregate	Diesel	52935.3	2082446	2082446	0	654936.9	0
Los Angele	2040	MHDT	Aggregate	Aggregate	Electricity	34833.57	1671101	0	1671101	463989.1	1753034
Los Angele	2040	MHDT	Aggregate	Aggregate	Natural Ga	1096.799	43500.4	43500.4	0	9652.204	0
Los Angele	2040	OBUS	Aggregate	Aggregate	Gasoline	2066.622	55803.37	55803.37	0	41348.97	0
Los Angele	2040	OBUS	Aggregate	Aggregate	Diesel	2286.228	171473.7	171473.7	0	30650.99	0
Los Angele	2040	OBUS	Aggregate	Aggregate	Electricity	734.1662	42588	0	42588	14689.2	44829.5
Los Angele	2040	OBUS	Aggregate	Aggregate	Natural Ga	437.2978	23268.76	23268.76	0	3891.95	0
Los Angele	2040	SBUS	Aggregate	Aggregate	Gasoline	1266.396	52990.14	52990.14	0	5065.584	0
Los Angele	2040	SBUS	Aggregate	Aggregate	Diesel	580.0626	12171.35	12171.35	0	8399.307	0
Los Angele	2040	SBUS	Aggregate	Aggregate	Electricity	1206.692	37446.69	0	37446.69	13288.52	43299.66
Los Angele	2040	SBUS	Aggregate	Aggregate	Natural Ga	1790.924	36391.78	36391.78	0	25932.58	0
Los Angele	2040	UBUS	Aggregate	Aggregate	Gasoline	175.5913	10179.95	10179.95	0	702.3652	0
Los Angele	2040	UBUS	Aggregate	Aggregate	Electricity	4533.887	470663.8	0	470663.8	18135.55	989144
Los Angele	2040	UBUS	Aggregate	Aggregate	Natural Ga	740.0665	81771.51	81771.51	0	2960.266	0

or Fuel Consumption

NOx_RUNE	NOx_IDLEX	NOx_STRE	NOx_TOTE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_TO	PM2.5_PM	PM2.5_PM	PM2.5_TO	PM10_RU
0.003207	0	1.64E-05	0.003223	1.41E-06	0	1.15E-07	1.52E-06	7.34E-06	4.56E-05	5.45E-05	1.53E-06
11.85516	4.844946	3.00911	19.70921	0.210969	0.001713	0	0.212682	0.084092	0.283098	0.579872	0.220508
0	0	0	0	0	0	0	0	0.013519	0.024979	0.038498	0
0.1271	0.055503	0	0.182603	0.000712	0.000184	0	0.000896	0.004011	0.022554	0.02746	0.000774
2.474484	0	2.371092	4.845576	0.073002	0	0.013186	0.086189	0.238467	0.364456	0.689111	0.079397
0.00213	0	0	0.00213	0.000147	0	0	0.000147	0.000151	0.000232	0.000531	0.000154
0	0	0	0	0	0	0	0	0.032795	0.025185	0.057981	0
0.016227	0	0.066741	0.082968	0.001439	0	0.000554	0.001993	0.011318	0.008313	0.021624	0.001565
0.334612	0	0.257633	0.592245	0.007753	0	0.001401	0.009154	0.021056	0.039433	0.069642	0.008432
3.7E-06	0	0	3.7E-06	4.85E-07	0	0	4.85E-07	2.25E-07	4.11E-07	1.12E-06	5.07E-07
0	0	0	0	0	0	0	0	0.00057	0.000437	0.001007	0
0.000605	0	0.002431	0.003037	4.72E-05	0	1.7E-05	6.42E-05	0.000428	0.000314	0.000806	5.13E-05
2.214549	0	1.991289	4.205837	0.050454	0	0.008755	0.059209	0.159415	0.292678	0.511302	0.054873
0.009798	0	0	0.009798	0.001295	0	0	0.001295	0.000601	0.001099	0.002994	0.001353
0	0	0	0	0	0	0	0	0.004245	0.003261	0.007506	0
0.005903	0	0.024327	0.03023	0.000486	0	0.000181	0.000667	0.004149	0.003049	0.007865	0.000529
0.087448	0.002797	0.664899	0.755144	0.003749	0	0.000182	0.003931	0.007658	0.104534	0.116123	0.004078
0.643944	0.075036	0	0.71898	0.032304	0.002026	0	0.03433	0.008168	0.074328	0.116826	0.033765
0	0	0	0	0	0	0	0	0.007743	0.052848	0.060592	0
0.01484	0.000364	0.088446	0.10365	0.000497	0	2.26E-05	0.00052	0.001042	0.01659	0.018151	0.000541
0.404967	0.036967	0	0.441934	0.017676	0.000965	0	0.01864	0.003768	0.040002	0.06241	0.018475
0	0	0	0	0	0	0	0	0.001989	0.015835	0.017824	0
0.575874	0	0.029908	0.605782	0.002834	0	0.001407	0.004241	0.001217	0.005112	0.01057	0.003039
1.443328	0	1.248406	2.691734	0.028715	0	0.005226	0.033942	0.086816	0.162358	0.283115	0.031231
0.007705	0	0	0.007705	0.000644	0	0	0.000644	0.000939	0.001759	0.003343	0.000673
0	0	0	0	0	0	0	0	0.003867	0.002973	0.00684	0
0.00347	0	0.015129	0.018599	0.000294	0	0.000116	0.00041	0.002435	0.001792	0.004636	0.00032
0.01536	0	0.000574	0.015934	0.000155	0	4.74E-07	0.000156	0.000456	0.002312	0.002924	0.000169
0.168434	0	0	0.168434	0.002237	0	0	0.002237	0.000323	0.00122	0.00378	0.002338
0.039229	0.000598	0.06045	0.100277	0.000448	0	8.16E-05	0.000529	0.001309	0.006638	0.008476	0.000487
0.756103	0.611976	0.908782	2.276861	0.009108	0.000179	0	0.009286	0.006887	0.034977	0.05115	0.009519
0	0	0	0	0	0	0	0	0.005526	0.014036	0.019562	0
0.003149	0.007891	0	0.01104	5.19E-05	2.7E-05	0	7.89E-05	0.000144	0.000728	0.000951	5.64E-05
0.012327	0.00012	0.015261	0.027708	6.24E-05	0	1.25E-05	7.49E-05	0.000185	0.000949	0.001209	6.79E-05
0.194042	0.023376	0.038538	0.255956	0.00308	2.19E-05	0	0.003102	0.000567	0.004786	0.008455	0.003219
0	0	0	0	0	0	0	0	0.000141	0.000362	0.000503	0
0.002129	0.000725	0	0.002855	2.85E-05	2.26E-06	0	3.08E-05	7.69E-05	0.000396	0.000504	3.1E-05
0.008763	0.001028	0.004395	0.014186	7.4E-05	0	3.6E-06	7.76E-05	0.000117	0.000958	0.001152	8.05E-05
0.013228	0.007491	0.005848	0.026567	8.6E-05	2.52E-06	0	8.85E-05	4.02E-05	0.00022	0.000349	8.98E-05
0	0	0	0	0	0	0	0	0.000105	0.000338	0.000444	0
0.021135	0.010125	0	0.03126	0.000165	2.91E-05	0	0.000194	0.00012	0.000658	0.000973	0.00018
0.000251	0	0.000225	0.000476	1.12E-05	0	1.12E-07	1.13E-05	2.26E-05	0.000358	0.000392	1.21E-05
0	0	0	0	0	0	0	0	0.004329	0.009987	0.014316	0
0.012342	0	0	0.012342	6.66E-05	0	0	6.66E-05	0.00074	0.003445	0.004252	6.96E-05

PM10_IDLI	PM10_STR	PM10_TOT	PM10_PM	PM10_PM	PM10_TOT	CO2_RUNE	CO2_IDLEX	CO2_STRE	CO2_TOTE	CH4_RUNE	CH4_IDLEX
0	1.25E-07	1.66E-06	2.93E-05	0.00013	0.000161	2.433026	0	0.011251	2.444277	0.000105	0
0.00179	0	0.222298	0.336369	0.80885	1.367518	12224.46	786.4304	0	13010.89	0.004516	0.018903
0	0	0	0.054077	0.071368	0.125445	0	0	0	0	0	0
0.0002	0	0.000974	0.016043	0.064439	0.081456	473.8071	59.53784	0	533.345	0.335371	0.134234
0	0.014341	0.093738	0.953867	1.041302	2.088907	29416.92	0	832.4835	30249.41	0.146596	0
0	0	0.000154	0.000604	0.000664	0.001422	15.56026	0	0	15.56026	2.74E-05	0
0	0	0	0.131182	0.071958	0.20314	0	0	0	0	0	0
0	0.000603	0.002168	0.045272	0.02375	0.07119	706.7186	0	35.10872	741.8274	0.002438	0
0	0.001524	0.009956	0.084223	0.112664	0.206843	3052.974	0	89.04631	3142.02	0.019544	0
0	0	5.07E-07	9E-07	1.18E-06	2.58E-06	0.042426	0	0	0.042426	9.07E-08	0
0	0	0	0.002278	0.00125	0.003528	0	0	0	0	0	0
0	1.85E-05	6.98E-05	0.001711	0.000898	0.002679	26.36507	0	1.453463	27.81854	9.11E-05	0
0	0.009522	0.064395	0.637662	0.836223	1.53828	24237.19	0	692.765	24929.95	0.136783	0
0	0	0.001353	0.002402	0.00314	0.006895	86.23872	0	0	86.23872	0.000242	0
0	0	0	0.01698	0.009316	0.026296	0	0	0	0	0	0
0	0.000197	0.000726	0.016594	0.008712	0.026033	257.1043	0	15.69611	272.8004	0.000886	0
0	0.000197	0.004275	0.030633	0.298669	0.333577	1989.259	11.82241	38.72877	2039.81	0.002147	0.009493
0.002117	0	0.035882	0.032672	0.212367	0.280921	1283.403	8.916579	0	1292.319	0.006154	0.000392
0	0	0	0.030973	0.150995	0.181968	0	0	0	0	0	0
0	2.46E-05	0.000566	0.004167	0.047399	0.052132	306.2353	1.95913	5.422458	313.6169	0.000275	0.001238
0.001008	0	0.019483	0.015071	0.11429	0.148845	689.6716	6.895147	0	696.5667	0.003378	0.000187
0	0	0	0.007955	0.045243	0.053198	0	0	0	0	0	0
0	0.001508	0.004548	0.004868	0.014605	0.024021	234.651	0	15.40211	250.0531	0.184188	0
0	0.005684	0.036915	0.347263	0.46388	0.848058	16045.86	0	485.1805	16531.04	0.082449	0
0	0	0.000673	0.003758	0.005027	0.009457	176.0936	0	0	176.0936	0.000151	0
0	0	0	0.015467	0.008495	0.023963	0	0	0	0	0	0
0	0.000126	0.000446	0.009741	0.005119	0.015305	151.1308	0	11.89477	163.0256	0.000517	0
0	5.15E-07	0.000169	0.001824	0.006607	0.0086	270.1044	0	0.042408	270.1468	0.000499	0
0	0	0.002338	0.001291	0.003486	0.007115	82.37245	0	0	82.37245	0.000152	0
0	8.88E-05	0.000576	0.005235	0.018965	0.024776	629.8917	4.47862	7.142401	641.5127	0.001228	0.00248
0.000187	0	0.009706	0.027546	0.099935	0.137187	2290.297	113.727	0	2404.024	0.000621	0.000481
0	0	0	0.022105	0.040103	0.062208	0	0	0	0	0	0
2.94E-05	0	8.58E-05	0.000575	0.002081	0.002742	38.99547	6.677051	0	45.67252	0.027244	0.019202
0	1.36E-05	8.15E-05	0.000738	0.002713	0.003532	91.9745	0.809907	1.316821	94.10123	0.000343	0.000422
2.29E-05	0	0.003242	0.002268	0.013674	0.019184	241.3245	7.931792	0	249.2563	0.000217	0.000154
0	0	0	0.000563	0.001035	0.001598	0	0	0	0	0	0
2.46E-06	0	3.35E-05	0.000308	0.001131	0.001472	20.35464	0.561103	0	20.91574	0.015567	0.001846
0	3.91E-06	8.44E-05	0.000467	0.002736	0.003288	48.56016	3.3939	0.282035	52.23609	0.00016	0.003406
2.63E-06	0	9.25E-05	0.000161	0.000629	0.000882	15.52539	1.254131	0	16.77952	1.67E-05	5.01E-06
0	0	0	0.000422	0.000967	0.001389	0	0	0	0	0	0
3.17E-05	0	0.000211	0.000481	0.001879	0.002572	62.65132	8.288406	0	70.93972	0.156347	0.026661
0	1.22E-07	1.23E-05	9.02E-05	0.001023	0.001126	6.530332	0	0.027149	6.557481	6.58E-06	0
0	0	0	0.017316	0.028535	0.045851	0	0	0	0	0	0
0	0	6.96E-05	0.00296	0.009843	0.012872	211.5872	0	0	211.5872	0.393925	0

CH4_STRE	CH4_TOTE	N2O_RUNI	N2O_IDLE	N2O_STRE	N2O_TOTE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_TOTE	ROG_DIUR	ROG_HOT
3.31E-08	0.000105	0.000152	0	9.19E-07	0.000153	0.000464	0	1.69E-07	0.000464	2.29E-05	3.69E-06
0	0.023419	1.925968	0.123902	0	2.049871	0.097227	0.406984	0	0.504211	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0.469605	0.096589	0.012137	0	0.108726	0.006672	0.00201	0	0.008682	0	0
0.496213	0.642809	0.38992	0	0.36519	0.755109	0.44577	0	1.955426	2.401196	3.306125	0.658464
0	2.74E-05	0.002452	0	0	0.002452	0.000589	0	0	0.000589	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.02308	0.025518	0.002742	0	0.011171	0.013913	0.007977	0	0.09749	0.105467	0.118544	0.024514
0.054543	0.074087	0.042719	0	0.036773	0.079492	0.067677	0	0.226685	0.294362	0.492951	0.092867
0	9.07E-08	6.68E-06	0	0	6.68E-06	1.95E-06	0	0	1.95E-06	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.000844	0.000935	0.000103	0	0.00041	0.000513	0.000298	0	0.003552	0.003849	0.002411	0.000633
0.414836	0.551619	0.298157	0	0.29035	0.588507	0.439826	0	1.671468	2.111294	2.13652	0.42436
0	0.000242	0.013587	0	0	0.013587	0.005211	0	0	0.005211	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.008418	0.009304	0.000995	0	0.004077	0.005072	0.002902	0	0.035535	0.038437	0.030049	0.007081
0.033656	0.045296	0.007563	0.000275	0.063686	0.071525	0.007297	0.032128	0.149603	0.189028	0.209325	0.035231
0	0.006546	0.202201	0.001405	0	0.203605	0.132486	0.008443	0	0.140928	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.004349	0.005862	0.001371	3.54E-05	0.008322	0.009728	0.000926	0.004186	0.01919	0.024302	0.033436	0.005538
0	0.003565	0.108658	0.001086	0	0.109744	0.072722	0.004026	0	0.076747	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.053386	0.237574	0.043304	0	0.001968	0.045272	1.112553	0	0.376919	1.489472	0.710549	1.508116
0.254989	0.337438	0.175786	0	0.172925	0.348711	0.274982	0	1.060616	1.335598	1.403677	0.27263
0	0.000151	0.027744	0	0	0.027744	0.003249	0	0	0.003249	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.0052	0.005717	0.000577	0	0.002502	0.003079	0.001706	0	0.022099	0.023805	0.020182	0.0046
4.66E-05	0.000545	0.001831	0	6.81E-05	0.001899	0.001385	0	0.000165	0.00155	0.026237	0.004606
0	0.000152	0.012978	0	0	0.012978	0.00327	0	0	0.00327	0	0
0.007076	0.010785	0.00339	5.56E-05	0.005273	0.008719	0.004843	0.009394	0.035072	0.04931	0.021564	0.003373
0	0.001103	0.360837	0.017918	0	0.378755	0.013377	0.010366	0	0.023744	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0.046446	0.007949	0.001361	0	0.009311	0.000389	0.000274	0	0.000664	0	0
0.001419	0.002184	0.000678	8.99E-06	0.00105	0.001736	0.001615	0.001707	0.007815	0.011138	0.009009	0.001539
0	0.000372	0.038021	0.00125	0	0.03927	0.004677	0.003326	0	0.008003	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0.017412	0.004149	0.000114	0	0.004264	0.000222	2.64E-05	0	0.000249	0	0
0.000357	0.003923	0.00078	9.92E-05	0.000392	0.001271	0.000696	0.014855	0.002	0.017551	0.005359	0.000828
0	2.17E-05	0.002446	0.000198	0	0.002644	0.000359	0.000108	0	0.000467	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0.183008	0.012772	0.00169	0	0.014462	0.002234	0.000381	0	0.002615	0	0
2.25E-05	2.91E-05	3.7E-05	0	3.56E-05	7.27E-05	1.76E-05	0	7.79E-05	9.55E-05	7.04E-05	1.95E-05
0	0	0	0	0	0	0	0	0	0	0	0
0	0.393925	0.043133	0	0	0.043133	0.005821	0	0	0.005821	0	0

ROG_RUNI	ROG_TOTA	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_TOTE	TOG_DIUR	TOG_HOTS	TOG_RUNI	TOG_TOTA	CO_RUNE	CO_IDLE
4.3E-05	0.000534	0.000677	0	1.85E-07	0.000678	2.29E-05	3.69E-06	4.3E-05	0.000747	0.041334	0
0	0.504211	0.110686	0.46332	0	0.574006	0	0	0	0.574006	0.455179	6.007372
0	0	0	0	0	0	0	0	0	0	0	0
0	0.008682	0.344412	0.137101	0	0.481514	0	0	0	0.481514	2.354472	0.489041
2.421613	8.787398	0.650466	0	2.140946	2.791412	3.306125	0.658464	2.421613	9.177614	62.61267	0
0	0.000589	0.000671	0	0	0.000671	0	0	0	0.000671	0.015746	0
0	0	0	0	0	0	0	0	0	0	0	0
0.049612	0.298138	0.01164	0	0.106739	0.11838	0.118544	0.024514	0.049612	0.31105	1.150447	0
0.346155	1.226335	0.098754	0	0.248191	0.346946	0.492951	0.092867	0.346155	1.278918	6.833017	0
0	1.95E-06	2.22E-06	0	0	2.22E-06	0	0	0	2.22E-06	2.02E-05	0
0	0	0	0	0	0	0	0	0	0	0	0
0.000812	0.007706	0.000434	0	0.003889	0.004323	0.002411	0.000633	0.000812	0.008179	0.042919	0
1.56889	6.241064	0.641793	0	1.830047	2.47184	2.13652	0.42436	1.56889	6.601611	50.35523	0
0	0.005211	0.005932	0	0	0.005932	0	0	0	0.005932	0.05401	0
0	0	0	0	0	0	0	0	0	0	0	0
0.011076	0.086642	0.004235	0	0.038906	0.043141	0.030049	0.007081	0.011076	0.091346	0.418533	0
0.276602	0.710187	0.010648	0.04688	0.163797	0.221325	0.209325	0.035231	0.276602	0.742484	1.949429	0.412086
0	0.140928	0.150826	0.009612	0	0.160438	0	0	0	0.160438	0.27373	0.069978
0	0	0	0	0	0	0	0	0	0	0	0
0.044079	0.107356	0.001351	0.006108	0.021011	0.02847	0.033436	0.005538	0.044079	0.111524	0.268112	0.058933
0	0.076747	0.082789	0.004583	0	0.087372	0	0	0	0.087372	0.156076	0.033366
0	0	0	0	0	0	0	0	0	0	0	0
1.552446	5.260584	1.387867	0	0.41039	1.798256	0.710549	1.508116	1.552446	5.569368	12.97818	0
1.022781	4.034686	0.401254	0	1.161241	1.562494	1.403677	0.27263	1.022781	4.261582	28.94663	0
0	0.003249	0.003698	0	0	0.003698	0	0	0	0.003698	0.096769	0
0	0	0	0	0	0	0	0	0	0	0	0
0.007724	0.056311	0.002489	0	0.024196	0.026685	0.020182	0.0046	0.007724	0.059191	0.246022	0
0.000145	0.032538	0.002021	0	0.000181	0.002202	0.026237	0.004606	0.000145	0.03319	0.024602	0
0	0.00327	0.003722	0	0	0.003722	0	0	0	0.003722	0.010649	0
0.040103	0.114349	0.007067	0.013708	0.0384	0.059175	0.021564	0.003373	0.040103	0.124214	0.101979	0.134109
0	0.023744	0.015229	0.011801	0	0.02703	0	0	0	0.02703	0.093526	0.433795
0	0	0	0	0	0	0	0	0	0	0	0
0	0.000664	0.027805	0.019597	0	0.047402	0	0	0	0.047402	0.100928	0.053276
0.009715	0.0314	0.002356	0.002491	0.008557	0.013405	0.009009	0.001539	0.009715	0.033667	0.039952	0.013198
0	0.008003	0.005325	0.003786	0	0.009111	0	0	0	0.009111	0.021427	0.05119
0	0	0	0	0	0	0	0	0	0	0	0
0	0.000249	0.015887	0.001884	0	0.017771	0	0	0	0.017771	0.062578	0.004402
0.003708	0.027446	0.001015	0.021677	0.00219	0.024882	0.005359	0.000828	0.003708	0.034777	0.012253	0.114805
0	0.000467	0.000408	0.000123	0	0.000531	0	0	0	0.000531	0.001427	0.004219
0	0	0	0	0	0	0	0	0	0	0	0
0	0.002615	0.159563	0.027209	0	0.186773	0	0	0	0.186773	0.495416	0.05602
7.24E-05	0.000258	2.57E-05	0	8.53E-05	0.000111	7.04E-05	1.95E-05	7.24E-05	0.000273	0.005338	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0.005821	0.40224	0	0	0.40224	0	0	0	0.40224	4.570062	0

CO_STREX	CO_TOTEX	SOx_RUNE	SOx_IDLEX	SOx_STREX	SOx_TOTEX	NH3_RUNE	Fuel Consumption
0.001162	0.042497	2.41E-05	0	1.11E-07	2.42E-05	6.6E-05	0.257746
0	6.462551	0.115758	0.007447	0	0.123205	2.071526	1162.257
0	0	0	0	0	0	0	0
0	2.843513	0	0	0	0	0.370986	61.64654
24.03055	86.64322	0.290816	0	0.00823	0.299046	4.969348	3189.762
0	0.015746	0.000147	0	0	0.000147	0.000234	1.389992
0	0	0	0	0	0	0	0
0.741532	1.891979	0.006987	0	0.000347	0.007334	0.097931	78.22477
2.515927	9.348944	0.030182	0	0.00088	0.031062	0.431065	331.3221
0	2.02E-05	4.02E-07	0	0	4.02E-07	3.49E-07	0.00379
0	0	0	0	0	0	0	0
0.027014	0.069933	0.000261	0	1.44E-05	0.000275	0.003664	2.93343
20.04504	70.40027	0.239609	0	0.006849	0.246458	3.320918	2628.832
0	0.05401	0.000817	0	0	0.000817	0.000931	7.70367
0	0	0	0	0	0	0	0
0.270285	0.688817	0.002542	0	0.000155	0.002697	0.035727	28.76646
5.130891	7.492406	0.019666	0.000117	0.000383	0.020166	0.172309	215.0954
0	0.343708	0.012161	8.45E-05	0	0.012245	0.589047	115.4424
0	0	0	0	0	0	0	0
0.735284	1.062329	0.003027	1.94E-05	5.36E-05	0.0031	0.023439	33.07051
0	0.189442	0.006535	6.53E-05	0	0.0066	0.269568	62.22403
0	0	0	0	0	0	0	0
3.015898	15.99408	0.00232	0	0.000152	0.002472	0.011129	26.36779
11.85554	40.80217	0.15863	0	0.004797	0.163426	1.803005	1743.178
0	0.096769	0.001669	0	0	0.001669	0.001456	15.73037
0	0	0	0	0	0	0	0
0.168093	0.414114	0.001494	0	0.000118	0.001612	0.021002	17.19084
0.003539	0.028142	0.00267	0	4.19E-07	0.002671	0.006839	28.48665
0	0.010649	0.000781	0	0	0.000781	0.01682	7.358298
0.648434	0.884523	0.006227	4.43E-05	7.06E-05	0.006342	0.019633	67.64671
0	0.527321	0.021688	0.001077	0	0.022765	0.503157	214.7505
0	0	0	0	0	0	0	0
0	0.154204	0	0	0	0	0.050828	5.279047
0.152147	0.205297	0.000909	8.01E-06	1.3E-05	0.00093	0.002768	9.922857
0	0.072617	0.002285	7.51E-05	0	0.00236	0.040833	22.26597
0	0	0	0	0	0	0	0
0	0.06698	0	0	0	0	0.027188	2.417541
0.041124	0.168182	0.00048	3.36E-05	2.79E-06	0.000516	0.002629	5.508231
0	0.005646	0.000147	1.19E-05	0	0.000159	0.002784	1.498908
0	0	0	0	0	0	0	0
0	0.551436	0	0	0	0	0.042522	8.19955
0.004363	0.0097	6.46E-05	0	2.68E-07	6.48E-05	0.000505	0.691478
0	0	0	0	0	0	0	0
0	4.570062	0	0	0	0	0.087434	24.45625

## Appendix E: Noise Analysis Data

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# **Santa Fe Springs General Plan Update**

## **City of Santa Fe Springs, California**

### **Appendix E: Noise Data**

**Prepared by: MIG, Inc.**

**July 2021**

#### **Appendix Contents**

[Sheet 1: LT ANM](#)

Summary of Long-Term Ambient Noise Monitoring

[Sheet 2: ST ANM](#)

Summary of Short-Term Ambient Noise Monitoring

## Sheet 1: Summary of Long-Term Ambient Noise Monitoring Data

Table 1: Summary of Long-Term Ambient Noise Measurements in the Planning Area (LT1)

Date	Start Time	End Time	Leq	Lmin	Lmax	L02	L08	L25	L50	L67	L90	DNL	CNEL
Wednesday, May 19, 2021	10:05 AM	11:00 AM	68.5	54.9	85.1	81.1	67.6	62.3	57.7	57.1	55.7	68.5	68.5
Wednesday, May 19, 2021	11:00 AM	12:00 PM	54.8	48.7	66.0	58.7	57.4	55.7	54.1	53.3	52.0	54.8	54.8
Wednesday, May 19, 2021	12:00 PM	1:00 PM	55.8	48.6	69.0	60.2	60.2	56.7	54.9	53.8	52.5	55.8	55.8
Wednesday, May 19, 2021	1:00 PM	2:00 PM	55.1	49.1	68.8	59.5	59.5	55.8	54.5	53.6	52.3	55.1	55.1
Wednesday, May 19, 2021	2:00 PM	3:00 PM	54.9	49.5	65.3	58.6	58.6	55.8	54.3	53.4	52.1	54.9	54.9
Wednesday, May 19, 2021	3:00 PM	4:00 PM	55.8	49.1	71.1	60.4	60.4	56.4	54.9	54.3	53.3	55.8	55.8
Wednesday, May 19, 2021	4:00 PM	5:00 PM	55.9	50.2	70.5	60.5	60.5	56.8	55.0	54.2	53.2	55.9	55.9
Wednesday, May 19, 2021	5:00 PM	6:00 PM	55.4	49.6	69.8	60.1	60.1	56.4	54.5	53.5	52.3	55.4	55.4
Wednesday, May 19, 2021	6:00 PM	7:00 PM	54.5	45.3	70.7	59.7	59.7	55.7	53.2	52.2	50.6	54.5	54.5
Wednesday, May 19, 2021	7:00 PM	8:00 PM	55.6	45.3	78.8	63.3	63.3	55.2	52.4	51.2	49.6	55.6	60.6
Wednesday, May 19, 2021	8:00 PM	9:00 PM	54.1	46.7	68.0	59.4	59.4	55.1	53.2	51.8	50.5	54.1	59.1
Wednesday, May 19, 2021	9:00 PM	10:00 PM	53.3	44.6	69.1	57.9	57.9	54.4	52.3	51.0	49.5	53.3	58.3
Wednesday, May 19, 2021	10:00 PM	11:00 PM	53.9	44.2	70.5	60.6	60.6	54.5	51.7	50.4	48.6	63.9	63.9
Wednesday, May 19, 2021	11:00 PM	12:00 AM	52.3	42.4	78.0	60.0	60.0	52.8	50.4	48.9	47.0	62.3	62.3
Thursday, May 20, 2021	12:00 AM	1:00 AM	50.4	41.6	71.9	57.0	57.0	51.1	48.5	47.2	45.2	60.4	60.4
Thursday, May 20, 2021	1:00 AM	2:00 AM	48.4	39.0	69.9	55.8	55.8	48.5	45.3	43.8	42.3	58.4	58.4
Thursday, May 20, 2021	2:00 AM	3:00 AM	47.9	37.5	65.5	54.1	54.1	49.2	46.0	44.3	42.1	57.9	57.9
Thursday, May 20, 2021	3:00 AM	4:00 AM	48.5	38.7	59.7	54.4	54.4	49.7	47.0	45.5	43.4	58.5	58.5
Thursday, May 20, 2021	4:00 AM	5:00 AM	51.9	40.7	69.8	57.8	57.8	52.6	50.0	48.4	45.8	61.9	61.9
Thursday, May 20, 2021	5:00 AM	6:00 AM	56.3	44.5	75.7	62.8	62.8	56.6	54.2	53.1	51.8	66.3	66.3
Thursday, May 20, 2021	6:00 AM	7:00 AM	55.6	46.8	70.6	60.8	60.8	56.6	54.3	52.8	50.7	65.6	65.6
Thursday, May 20, 2021	7:00 AM	8:00 AM	54.9	49.7	63.3	58.4	58.4	55.7	54.4	53.6	52.5	64.9	64.9
Thursday, May 20, 2021	8:00 AM	9:00 AM	56.0	49.1	72.8	60.5	60.5	56.9	54.9	54.0	52.5	66.0	66.0
Thursday, May 20, 2021	9:00 AM	10:00 AM	54.8	48.4	67.1	58.4	58.4	55.7	54.2	53.5	52.3	64.8	64.8
Daytime (7 AM to 10 PM)			59.6	45.3	85.1	70.6	61.2	57.2	54.9	54.0	52.8	--	--
Evening (7 PM to 10 AM)			54.5	44.6	78.8	60.9	60.9	54.9	52.6	51.4	49.9	--	--
Nighttime (10 PM to 7 AM)			52.7	37.5	78.0	59.1	59.1	53.3	50.8	49.4	47.6	--	--
DNL			--	--	--	--	--	--	--	--	--	61.9	--
CNEL			--	--	--	--	--	--	--	--	--	--	62.1

**Table 2: Summary of Long-Term Ambient Noise Measurements in the Planning Area (LT2)**

Date	Start Time	End Time	Leq	Lmin	Lmax	L02	L08	L25	L50	L67	L90	DNL	CNEL
Wednesday, May 19, 2021	12:00 PM	1:00 PM	52.9	47.0	72.8	57.8	55.6	53.4	51.9	51.3	50.3	52.9	52.9
Wednesday, May 19, 2021	1:00 PM	2:00 PM	70.4	49.2	95.8	80.3	75.6	67.7	65.9	65.3	64.1	70.4	70.4
Wednesday, May 19, 2021	2:00 PM	3:00 PM	74.0	50.2	97.6	83.5	78.0	72.5	69.9	68.9	66.7	74.0	74.0
Wednesday, May 19, 2021	3:00 PM	4:00 PM	72.1	48.7	96.3	82.0	76.5	71.2	67.7	65.7	61.1	72.1	72.1
Wednesday, May 19, 2021	4:00 PM	5:00 PM	69.7	50.0	91.1	77.4	73.3	69.7	66.4	66.1	65.6	69.7	69.7
Wednesday, May 19, 2021	5:00 PM	6:00 PM	67.5	49.6	90.6	77.1	72.2	66.0	63.5	62.5	59.7	67.5	67.5
Wednesday, May 19, 2021	6:00 PM	7:00 PM	69.6	48.0	92.9	79.4	75.5	66.6	63.6	62.8	61.5	69.6	69.6
Wednesday, May 19, 2021	7:00 PM	8:00 PM	75.1	48.3	94.4	83.1	80.2	74.8	71.7	69.4	65.4	75.1	80.1
Wednesday, May 19, 2021	8:00 PM	9:00 PM	74.7	50.0	93.9	81.6	78.6	75.3	73.1	72.3	61.4	74.7	79.7
Wednesday, May 19, 2021	9:00 PM	10:00 PM	72.5	48.9	92.1	77.5	76.0	73.7	71.6	70.6	64.1	72.5	77.5
Wednesday, May 19, 2021	10:00 PM	11:00 PM	67.1	48.3	87.3	73.7	71.2	67.5	66.3	64.4	61.1	77.1	77.1
Wednesday, May 19, 2021	11:00 PM	12:00 AM	67.7	47.5	89.2	74.9	72.7	67.5	64.7	63.5	61.3	77.7	77.7
Thursday, May 20, 2021	12:00 AM	1:00 AM	73.1	43.5	91.2	80.5	77.5	73.0	71.3	69.8	67.1	83.1	83.1
Thursday, May 20, 2021	1:00 AM	2:00 AM	69.5	44.1	93.1	78.2	75.6	69.7	63.3	61.6	56.4	79.5	79.5
Thursday, May 20, 2021	2:00 AM	3:00 AM	71.6	42.1	92.7	79.4	76.8	70.6	68.2	67.1	66.2	81.6	81.6
Thursday, May 20, 2021	3:00 AM	4:00 AM	70.0	43.1	96.4	78.7	73.6	69.2	67.7	67.1	53.1	80.0	80.0
Thursday, May 20, 2021	4:00 AM	5:00 AM	69.9	44.7	92.7	76.9	73.4	70.4	69.0	65.3	64.5	79.9	79.9
Thursday, May 20, 2021	5:00 AM	6:00 AM	65.2	45.7	90.3	74.4	70.6	63.4	61.1	58.9	56.3	75.2	75.2
Thursday, May 20, 2021	6:00 AM	7:00 AM	69.8	46.1	94.9	79.9	74.6	66.5	65.6	65.2	63.7	79.8	79.8
Thursday, May 20, 2021	7:00 AM	8:00 AM	67.9	50.4	91.0	77.3	72.2	66.7	64.2	61.7	60.3	67.9	67.9
Thursday, May 20, 2021	8:00 AM	9:00 AM	67.4	49.3	90.7	77.2	72.3	64.7	62.6	62.1	60.8	67.4	67.4
Thursday, May 20, 2021	9:00 AM	10:00 AM	70.7	49.4	90.8	78.7	76.0	71.0	66.8	64.8	63.5	70.7	70.7
Thursday, May 20, 2021	10:00 AM	11:00 AM	69.9	48.6	92.1	77.9	74.4	70.4	67.0	65.5	63.6	69.9	69.9
Thursday, May 20, 2021	11:00 AM	12:00 PM	66.6	47.5	91.3	74.4	72.7	65.2	62.0	61.0	58.8	66.6	66.6
Daytime (7 AM to 10 PM)			69.8	47.0	97.6	79.0	74.5	68.7	65.7	64.5	62.7	--	--
Evening (7 PM to 10 AM)			74.2	48.3	94.4	81.3	78.6	74.7	72.2	71.0	64.0	--	--
Nighttime (10 PM to 7 AM)			69.9	42.1	96.4	78.0	74.6	69.4	67.3	65.7	63.1	--	--
DNL			--	--	--	--	--	--	--	--	--	76.5	--
CNEL			--	--	--	--	--	--	--	--	--	--	77.1

## Sheet 2: Summary of Short-Term Ambient Noise Monitoring Data

Table 1: Summary of Short-Term Ambient Noise Measurements in the Planning Area

Site	Date	Start Time	Duration	Leq	Lmin	Lmax	L02	L08	L25	L50	L67	L90
ST-01	Wednesday, May 19, 2021	9:00 AM	30 Minutes	63.6	53.5	80.3	70.3	66.9	64.6	61.8	60.0	57.5
ST-02	Thursday, May 20, 2021	8:26 AM	1 Hour	65.6	47.9	92.5	75.5	68.6	61.1	56.5	55.1	52.8
ST-03	Thursday, May 20, 2021	9:45 AM	30 Minutes	68.3	57.2	92.8	75.7	71.4	68.0	62.5	60.6	58.7
ST-04	Thursday, May 20, 2021	10:41 AM	15 Minutes	67.3	53.5	83.3	76.9	71.7	66.9	60.7	57.8	55.1
ST-05	Thursday, May 20, 2021	10:23 AM	15 Minutes	52.0	47.9	61.1	58.1	54.5	51.9	50.9	50.4	49.3
ST-06	Thursday, May 20, 2021	11:03 AM	30 Minutes	62.6	59.5	75.6	67.5	63.3	62.3	61.6	61.2	60.6
ST-07	Wednesday, May 19, 2021	1:43 PM	30 Minutes	70.4	54.0	93.6	76.9	73.2	69.7	65.4	62.9	58.5
ST-08	Wednesday, May 19, 2021	12:26 PM	30 Minutes	66.0	50.0	82.4	74.0	70.1	66.3	63.0	60.5	55.9
ST-09A	Wednesday, May 19, 2021	9:54 AM	35 Minutes	67.6	52.4	80.3	--	--	--	--	--	--
ST-09B	Wednesday, May 19, 2021	10:32 AM	15 Minutes	74.3	60.9	87.1	--	--	--	--	--	--
ST-10	Wednesday, May 19, 2021	2:30 PM	30 Minutes	72.8	55.9	88.7	82.2	76.8	72.4	68.7	65.5	61.9
ST-11	Wednesday, May 19, 2021	3:10 PM	30 Minutes	66.4	49.5	80.0	72.9	70.3	67.6	64.4	62.0	57.9
ST-12	Wednesday, May 19, 2021	4:15 PM	30 Minutes	72.7	60.7	93.0	80.1	75.9	72.7	68.7	66.9	64.4

# **Santa Fe Springs 2040 General Plan Update**

## **City of Santa Fe Springs, California**

### **Appendix E: Noise Data**

**Prepared by: MIG, Inc.**

**July 2021**

#### **Appendix Contents**

<a href="#">Sheet 1</a>	ADT and CNEL Comparison Tables
<a href="#">Sheet 2</a>	TNM Roadway Geometry Information
<a href="#">Sheet 3</a>	2020 Traffic Noise Contours
<a href="#">Sheet 4</a>	2020 Road Traffic Volume Information (Percentages)
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<a href="#">Sheet 11</a>	2040 GPU Road Traffic Volume Information (ADT)
<a href="#">Sheet 12</a>	EMFAC Vehicle Class Distributions
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## Sheet 1: ADT and CNEL Comparison Tables

Road / Segment	2020 Existing		2040 No Project		Net Change (2040 NP to 2020 Existing)		2040 General Plan		Net Change (2040 GP to 2040 NP)	
	ADT	CNEL 50 Ft	ADT	CNEL 50 Ft	ADT	CNEL	ADT	CNEL 50 Ft	ADT	CNEL 50 Ft
<b>Bloomfield Avenue</b>										
Telegraph Road to Florence Avenue	20,001	69.7	22,195	70.3	2,194	0.6	19,077	69.5	-3,118	-0.8
Florence Avenue to Imperial Highway	24,828	68.6	26,225	69.5	1,397	0.9	23,114	68.7	-3,111	-0.8
<b>Carmenita Road</b>										
Painter Avenue to Telegraph Road	25,535	67.2	24,335	67.5	-1,199	0.3	24,536	67.5	201	0.0
Telegraph Road to Florence Avenue	23,562	67	22,749	67.2	-813	0.2	22,370	67.3	-379	0.1
Florence Avenue to Meyer Road	23,471	67.7	22,168	67.9	-1,303	0.2	22,085	67.9	-83	0.0
Meyer Road to Leffingwell Road	29,381	68.4	25,976	68.3	-3,404	-0.1	26,773	68.4	797	0.1
Leffingwell Road to Imperial Highway	39,516	71.8	36,751	71.7	-2,766	-0.1	37,622	71.9	871	0.2
Imperial Highway to Rosecrans Avenue	35,753	72.2	33,949	72.2	-1,804	0	34,233	72.4	284	0.2
Rosecrans Avenue to I-5 NB Ramps	40,250	71.9	37,613	72.1	-2,637	0.2	38,887	72.3	1,274	0.2
I-5 NB Ramp to Firestone Boulevard	46,283	71.5	43,064	71.9	-3,219	0.4	44,780	72.2	1,716	0.3
Firestone Boulevard to Alondra Boulevard	35,819	69.8	35,009	71.7	-810	1.9	33,646	71.7	-1,362	0.0
<b>Imperial Highway</b>										
Valley View Avenue to Carmenita Road	34,293	70.7	31,238	70.6	-3,055	-0.1	31,354	70.7	116	0.1
Carmenita Road to Leffingwell Road	28,538	69.9	25,412	70	-3,126	0.1	26,456	70.3	1,044	0.3
Leffingwell Road to Bloomfield Avenue	63,521	73.2	56,725	73.1	-6,795	-0.1	60,905	73.4	4,180	0.3

<b>Florence Avenue</b>										
Telegraph Road to Carmenita Road	39,243	70.3	37,968	70.7	-1,275	0.4	38,762	70.5	794	-0.2
Carmenita Road to Bloomfield Avenue	37,624	72.6	36,697	72.8	-927	0.2	37,226	72.9	529	0.1
Bloomfield Avenue to Pioneer Boulevard	36,185	71.6	34,045	71.6	-2,140	0	35,733	72.0	1,688	0.4
Pioneer Boulevard to Fairford Avenue	47,563	72.5	45,181	72.7	-2,382	0.2	48,531	73.1	3,350	0.4
<b>Greenleaf Avenue</b>										
Mulberry Drive to Los Nietos Road	1,049	52.6	4,816	60.4	3,767	7.8	1,663	54.9	-3,152	-5.5
Los Nietos Road to Telegraph Road	8,761	61.5	11,420	62.9	2,658	1.4	8,669	62.1	-2,751	-0.8
<b>Lakeland Road</b>										
Carmenita Road to Laurel Avenue	3,413	60.8	4,883	62.3	1,470	1.5	2,835	60.3	-2,048	-2.0
Laurel Avenue to Painter Avenue	5,607	61.3	5,691	61.9	83	0.6	5,018	61.2	-672	-0.7
Painter Avenue to Shoemaker Avenue	1,499	57.3	3,105	60.2	1,606	2.9	1,471	57.2	-1,634	-3.0
Shoemaker Avenue to Bloomfield Avenue	8,961	63.1	8,207	63	-754	-0.1	8,503	63.1	296	0.1
Bloomfield Avenue to Norwalk Boulevard	5,034	59.7	3,402	58.5	-1,632	-1.2	3,744	58.6	341	0.1
Norwalk Boulevard to Pioneer Boulevard	6,675	60	6,895	61	219	1	6,299	60.2	-596	-0.8
<b>Mulberry Drive</b>										
Painter Avenue to Santa Fe Springs Road	46,306	70.3	41,163	70	-5,143	-0.3	43,933	70.4	2,769	0.4
<b>Norwalk Boulevard</b>										
Mines Street to Washington Boulevard	23,601	69.1	25,441	69.8	1,840	0.7	23,097	69.6	-2,344	-0.2
Washington Boulevard to Slauson Avenue	39,325	68.7	37,243	69.1	-2,082	0.4	38,958	69.3	1,715	0.2
Slauson Avenue to Los Nietos Road	37,475	72.3	37,714	72.8	240	0.5	38,028	72.9	313	0.1
Los Nietos Road to Telegraph Road	22,285	68.6	21,337	69.1	-948	0.5	22,213	69.2	876	0.1
Telegraph Road to Florence Avenue	34,414	71.4	30,596	71.1	-3,817	-0.3	33,540	71.6	2,944	0.5



Florence Avenue to 4th Street	34,192	70.8	30,834	70.7	-3,358	-0.1	34,217	71.2	3,383	0.5
<b>Painter Avenue</b>										
Mulberry Drive to Wallburg Street	28,295	67.5	24,903	67.2	-3,392	-0.3	27,211	67.7	2,308	0.5
<b>Pioneer Boulevard</b>										
Saragosa Street to Washington Boulevard	20,713	66.3	23,111	66.6	2,398	0.3	21,812	66.0	-1,299	-0.6
Washington Boulevard to I-605 NB Ramp	23,358	66.3	23,217	66.5	-141	0.2	22,805	66.3	-413	-0.2
I-605 NB Ramp to Slauson Avenue	29,191	68.6	29,237	68.4	46	-0.2	29,971	68.4	734	0.0
Slauson Avenue to Orr and Day Road	11,764	62.8	13,984	64.3	2,219	1.5	11,675	63.0	-2,308	-1.3
Orr and Day Road to Arlee Avenue	3,460	55.8	4,923	59.2	1,463	3.4	3,345	56.1	-1,578	-3.1
Arlee Avenue to Florence Avenue	13,515	66.8	14,503	67.6	988	0.8	15,052	67.8	549	0.2
Florence Avenue to Lakeland Road	25,308	67.2	22,432	67.7	-2,876	0.5	25,334	68.2	2,902	0.5
<b>Santa Fe Springs Road</b>										
Mulberry Drive to Sorensen Avenue	13,219	64.8	14,729	65.8	1,510	1	12,981	64.9	-1,748	-0.9
Sorensen Avenue to Telegraph Road	17,930	68.9	21,847	70	3,916	1.1	17,772	68.9	-4,074	-1.1
<b>Shoemaker Avenue</b>										
Telegraph Rd to Florence Avenue	6,751	62.3	8,964	63.7	2,213	1.4	6,538	62.9	-2,425	-0.8
Florence Avenue to Meyer Road	14,516	65.6	12,297	64.7	-2,218	-0.9	13,824	65.6	1,527	0.9
Meyer Road to Sunshine Avenue	2,460	59.3	6,434	63.9	3,973	4.6	3,616	61.4	-2,818	-2.5
Sunshine Avenue to Imperial Highway	4,388	61.9	8,504	65.4	4,116	3.5	5,708	63.7	-2,796	-1.7
Rosecrans Avenue to Rail Crossing	12,128	65	12,706	66.2	577	1.2	11,859	66.0	-846	-0.2
Rail Crossing to Alondra Boulevard	16,817	68.8	16,626	69.5	-191	0.7	15,640	69.0	-986	-0.5

<b>Slauson Avenue</b>	0	0	0	0	0	0	0	0.0	0	0.0
Santa Fe Springs Road to Sorensen Avenue	40,395	70.5	36,946	70.3	-3,450	-0.2	38,796	70.4	1,850	0.1
Sorensen Avenue to Dice Road	35,508	69.4	33,784	69.5	-1,724	0.1	35,902	69.8	2,119	0.3
Dice Road to Norwalk Boulevard	44,435	72	41,503	72	-2,932	0	44,242	72.2	2,739	0.2
Norwalk Boulevard to Pioneer Boulevard	36,075	71.3	35,907	71.5	-168	0.2	36,821	71.5	914	0.0
Pioneer Boulevard to Parsons Boulevard	59,668	73.4	56,869	73	-2,799	-0.4	61,342	73.4	4,473	0.4
<b>Telegraph Road</b>										
Leffingwell Road to Velly View Avenue	35,959	70.7	35,320	70.8	-639	0.1	37,151	71.2	1,831	0.4
Valley View Avenue to Mills Avenue/Florence Avenue	55,133	72.6	51,469	72.5	-3,664	-0.1	55,360	72.9	3,891	0.4
Mills Avenue/Florence Avenue to Carmenita Road	45,275	70.3	43,922	70.2	-1,354	-0.1	44,997	70.2	1,075	0.0
Carmenita Road to Bloomfield Avenue	36,250	69.3	35,040	68.8	-1,210	-0.5	35,626	69.0	587	0.2
Bloomfield Avenue to Orr and Day Road	45,497	71	43,226	70.7	-2,271	-0.3	44,541	70.9	1,315	0.2
Orr and Day Road to True Avenue	68,209	72.9	68,037	73	-172	0.1	69,624	73.2	1,587	0.2
<b>Washington Boulevard</b>										
Calobar Avenue/Rivera Road to Sorensen Avenue	31,546	69.7	30,926	69.6	-619	-0.1	32,210	69.8	1,283	0.2
Sorensen Avenue to Norwalk Boulevard	41,856	71.1	38,593	76.4	-3,263	5.3	42,484	71.0	3,890	-5.4
Norwalk Boulevard to Pioneer Boulevard	55,795	72	54,341	72	-1,454	0	56,277	72.1	1,936	0.1
Pioneer Boulevard to San Gabriel River	61,348	72.5	59,204	72.2	-2,144	-0.3	62,613	72.4	3,408	0.2

<b>Interstate 5</b>										
Valley View Avenue to Rosecrans Avenue (Without Barrier)	173,000	86.5	178,193	86.7	5,193	0.2	178,457	86.8	264	0.1
Valley View Avenue to Rosecrans Avenue (With Barrier)	173,000	75.5	178,193	75.7	5,193	0.2	178,457	75.8	264	0.1
Rail track to San Gabriel River (Without Barrier)	192,000	86.5	197,764	86.7	5,764	0.2	198,057	86.8	293	0.1
Rail track to San Gabriel River (With Barrier)	192,000	76.1	197,764	76.2	5,764	0.1	198,057	76.4	293	0.2
<b>Interstate 605</b>										
I-5 to City Limit (Without Barrier)	268,000	87.7	276,045	87.8	8,045	0.1	276,454	87.9	409	0.1
I-5 to City Limit (With Barrier)	268,000	78	276,045	78.1	8,045	0.1	276,454	78.2	409	0.1

**SHEET 2: TNM Roadway Geometry Information**

Road / Segment	Road Type <sup>(A)</sup>	Road Travel Lanes <sup>(B)</sup>		Road Width in Feet <sup>(C)</sup>			Speed <sup>(D)</sup>
		Total	Modeled	Total	Direction 1	Direction 2	MPH
<b>Bloomfield Avenue</b>							
Telegraph Road to Florence Avenue	Major Arterial	4	2	84	42	42	45
Florence Avenue to Imperial Highway	Major Arterial	4	2	84	42	42	45
<b>Carmenita Road</b>							
Painter Avenue to Telegraph Road	Major Arterial	4	2	80	40	40	35
Telegraph Road to Florence Avenue	Major Arterial	4	2	80	40	40	35
Florence Avenue to Meyer Road	Major Arterial	4	2	80	40	40	35
Meyer Road to Leffingwell Road	Major Arterial	4	2	80	40	40	35
Leffingwell Road to Imperial Highway	Major Arterial	4	2	80	40	40	45
Imperial Highway to Rosecrans Avenue	Major Arterial	4	2	80	40	40	45
Rosecrans Avenue to I-5 NB Ramps	Major Arterial	4	2	80	40	40	40
I-5 NB Ramp to Firestone Boulevard	Major Arterial	8	2	80	40	40	40
Firestone Boulevard to Alondra Boulevard	Major Arterial	4	2	80	40	40	40
<b>Imperial Highway</b>							
Valley View Avenue to Carmenita Road	Major Arterial	6	2	84	42	42	40
Carmenita Road to Leffingwell Road	Major Arterial	6	2	84	42	42	40
Leffingwell Road to Bloomfield Avenue	Major Arterial	6	2	84	42	42	40

**SHEET 2: TNM Roadway Geometry Information**

Road / Segment	Road Type <sup>(A)</sup>	Road Travel Lanes <sup>(B)</sup>		Road Width in Feet <sup>(C)</sup>			Speed <sup>(D)</sup>
		Total	Modeled	Total	Direction 1	Direction 2	MPH
<b>Florence Avenue</b>							
Telegraph Road to Carmenita Road	Major Arterial	4	2	84	42	42	40
Carmenita Road to Bloomfield Avenue	Major Arterial	4	2	84	42	42	45
Bloomfield Avenue to Pioneer Boulevard	Major Arterial	4	2	84	42	42	40
Pioneer Boulevard to Fairford Avenue	Major Arterial	4	2	84	42	42	40
<b>Greenleaf Avenue</b>							
Mulberry Drive to Los Nietos Road	Secondary Arterial	2	2	64	32	32	35
Los Nietos Road to Telegraph Road	Secondary Arterial	2	2	64	32	32	35
<b>Lakeland Road</b>							
Carmenita Road to Laurel Avenue	Secondary Arterial	2	2	66	33	33	40
Laurel Avenue to Painter Avenue	Secondary Arterial	2	2	66	33	33	40
Painter Avenue to Shoemaker Avenue	Secondary Arterial	2	2	66	33	33	40
Shoemaker Avenue to Bloomfield Avenue	Secondary Arterial	2	2	66	33	33	40
Bloomfield Avenue to Norwalk Boulevard	Secondary Arterial	2	2	66	33	33	40
Norwalk Boulevard to Pioneer Boulevard	Secondary Arterial	2	2	38	19	19	35
<b>Mulberry Drive</b>							
Painter Avenue to Santa Fe Springs Road	Major Arterial	6	2	84	42	42	40

**SHEET 2: TNM Roadway Geometry Information**

Road / Segment	Road Type <sup>(A)</sup>	Road Travel Lanes <sup>(B)</sup>		Road Width in Feet <sup>(C)</sup>			Speed <sup>(D)</sup>
		Total	Modeled	Total	Direction 1	Direction 2	MPH
<b>Norwalk Boulevard</b>							
Mines Street to Washington Boulevard	Major Arterial	4	2	68	34	34	40
Washington Boulevard to Slauson Avenue	Major Arterial	4	2	80	40	40	30
Slauson Avenue to Los Nietos Road	Major Arterial	4	2	60	30	30	45
Los Nietos Road to Telegraph Road	Major Arterial	4	2	80	40	40	45
Telegraph Road to Florence Avenue	Major Arterial	4	2	80	40	40	45
Florence Avenue to 4th Street	Major Arterial	4	2	80	40	40	40
<b>Painter Avenue</b>							
Mulberry Drive to Wallburg Street	Secondary Arterial	4	2	80	40	40	35
<b>Pioneer Boulevard</b>							
Saragosa Street to Washington Boulevard	Major Arterial	4	2	76	38	38	35
Washington Boulevard to I-605 NB Ramp	Major Arterial	4	2	76	38	38	35
I-605 NB Ramp to Slauson Avenue	Major Arterial	4	2	76	38	38	35
Slauson Avenue to Orr and Day Road	Major Arterial	4	2	80	40	40	35
Orr and Day Road to Arlee Avenue	Major Arterial	4	2	76	38	38	35
Arlee Avenue to Florence Avenue	Major Arterial	4	2	76	38	38	40
Florence Avenue to Lakeland Road	Major Arterial	4	2	80	40	40	40

**SHEET 2: TNM Roadway Geometry Information**

Road / Segment	Road Type <sup>(A)</sup>	Road Travel Lanes <sup>(B)</sup>		Road Width in Feet <sup>(C)</sup>			Speed <sup>(D)</sup>
		Total	Modeled	Total	Direction 1	Direction 2	MPH
<b>Santa Fe Springs Road</b>							
Mulberry Drive to Sorensen Avenue	Major Arterial	4	2	80	40	40	40
Sorensen Avenue to Telegraph Road	Major Arterial	4	2	80	40	40	45
<b>Shoemaker Avenue</b>							
Telegraph Rd to Florence Avenue	Secondary Arterial	4	2	64	32	32	40
Florence Avenue to Meyer Road	Secondary Arterial	4	2	80	40	40	40
Meyer Road to Sunshine Avenue	Secondary Arterial	4	2	64	32	32	40
Sunshine Avenue to Imperial Highway	Secondary Arterial	4	2	64	32	32	40
Rosecrans Avenue to Rail Crossing	Secondary Arterial	2	2	60	30	30	35
Rail Crossing to Alondra Boulevard	Secondary Arterial	4	2	64	32	32	45
<b>Slauson Avenue</b>							
Santa Fe Springs Road to Sorensen Avenue	Major Arterial	6	2	84	42	42	40
Sorensen Avenue to Dice Road	Major Arterial	6	2	84	42	42	40
Dice Road to Norwalk Boulevard	Major Arterial	6	2	84	42	42	40
Norwalk Boulevard to Pioneer Boulevard	Major Arterial	6	2	80	40	40	40
Pioneer Boulevard to Parsons Boulevard	Major Arterial	6	2	76	38	38	40

**SHEET 2: TNM Roadway Geometry Information**

Road / Segment	Road Type <sup>(A)</sup>	Road Travel Lanes <sup>(B)</sup>		Road Width in Feet <sup>(C)</sup>			Speed <sup>(D)</sup>
		Total	Modeled	Total	Direction 1	Direction 2	MPH
<b>Telegraph Road</b>							
Leffingwell Road to Valley View Avenue	Major Arterial	6	2	84	42	42	45
Valley View Avenue to Mills Avenue/Florence Avenue	Major Arterial	6	2	84	42	42	45
Mills Avenue/Florence Avenue to Carmenita Road	Major Arterial	6	2	84	42	42	40
Carmenita Road to Bloomfield Avenue	Major Arterial	6	2	84	42	42	40
Bloomfield Avenue to Orr and Day Road	Major Arterial	6	2	80	40	40	40
Orr and Day Road to True Avenue	Major Arterial	6	2	80	40	40	40
<b>Washington Boulevard</b>							
Calobar Avenue/Rivera Road to Sorensen Avenue	Major Arterial	4	2	78	39	39	40
Sorensen Avenue to Norwalk Boulevard	Major Arterial	4	2	78	39	39	40
Norwalk Boulevard to Pioneer Boulevard	Major Arterial	6	2	78	39	39	40
Pioneer Boulevard to San Gabriel River	Major Arterial	4	2	78	39	39	40
<b>Interstate 5</b>							
Valley View Avenue to Rosecrans Avenue (Without Barrier)	Highway	8	2	200	100	100	65
Valley View Avenue to Rosecrans Avenue (With Barrier)	Highway	8	2	200	100	100	65
Rail track to San Gabriel River (Without Barrier)	Highway	8	2	200	100	100	65
Rail track to San Gabriel River (With Barrier)	Highway	8	2	200	100	100	65



**SHEET 2: TNM Roadway Geometry Information**

Road / Segment	Road Type <sup>(A)</sup>	Road Travel Lanes <sup>(B)</sup>		Road Width in Feet <sup>(C)</sup>			Speed <sup>(D)</sup>
		Total	Modeled	Total	Direction 1	Direction 2	MPH
<b>Interstate 605</b>							
I-5 to City Limit (Without Barrier)	Highway	8	2	150	75	75	65
I-5 to City Limit (With Barrier)	Highway	8	2	150	75	75	65

## Table Notes:

A - Road type from City's Existing Conditions Technical Report (City of Santa Fe Springs, 2020). The predominant road classification for the listed segment is presented. Parts of the listed segment may have a different classification.

B - Total travel lanes includes north and southbound or east and westbound travel lanes. All roads were modeled as a single lane in each direction.

C - Total road width is measured from curb to curb or edge of pavement. Width does not include any unpaved part of the right of way. Direction 1 refers to one travel direction (e.g., northbound) and direction 2 refers to the opposite travel direction (e.g., southbound).

D - Speed is based on highest posted speed limit in the modeled roadway segment.

**SHEET 3: Existing 2020 Traffic Noise Contours**

Road / Segment	Estimated CNEL 50 Feet from Road Center Line <sup>(A)</sup>	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 CNEL	70 CNEL	65 CNEL	60 CNEL
<b>Bloomfield Avenue</b>					
Telegraph Road to Florence Avenue	69.7	15	47	148	467
Florence Avenue to Imperial Highway	68.6	11	36	115	362
<b>Carmenita Road</b>					
Painter Avenue to Telegraph Road	67.2	8	26	83	262
Telegraph Road to Florence Avenue	67.0	8	25	79	251
Florence Avenue to Meyer Road	67.7	9	29	93	294
Meyer Road to Leffingwell Road	68.4	11	35	109	346
Leffingwell Road to Imperial Highway	71.8	24	76	239	757
Imperial Highway to Rosecrans Avenue	72.2	26	83	262	830
Rosecrans Avenue to I-5 NB Ramps	71.9	24	77	245	774
I-5 NB Ramp to Firestone Boulevard	71.5	22	71	223	706
Firestone Boulevard to Alondra Boulevard	69.8	15	48	151	477
<b>Imperial Highway</b>					
Valley View Avenue to Carmenita Road	70.7	19	59	186	587
Carmenita Road to Leffingwell Road	69.9	15	49	155	489
Leffingwell Road to Bloomfield Avenue	73.2	33	104	330	1,045

<b>Florence Avenue</b>					
Telegraph Road to Carmenita Road	70.3	17	54	169	536
Carmenita Road to Bloomfield Avenue	72.6	29	91	288	910
Bloomfield Avenue to Pioneer Boulevard	71.6	23	72	229	723
Pioneer Boulevard to Fairford Avenue	72.5	28	89	281	889
<b>Greenleaf Avenue</b>					
Mulberry Drive to Los Nietos Road	52.6	0	1	3	9
Los Nietos Road to Telegraph Road	61.5	2	7	22	71
<b>Lakeland Road</b>					
Carmenita Road to Laurel Avenue	60.8	2	6	19	60
Laurel Avenue to Painter Avenue	61.3	2	7	21	67
Painter Avenue to Shoemaker Avenue	57.3	1	3	8	27
Shoemaker Avenue to Bloomfield Avenue	63.1	3	10	32	102
Bloomfield Avenue to Norwalk Boulevard	59.7	1	5	15	47
Norwalk Boulevard to Pioneer Boulevard	60.0	2	5	16	50
<b>Mulberry Drive</b>					
Painter Avenue to Santa Fe Springs Road	70.3	17	54	169	536
<b>Norwalk Boulevard</b>					
Mines Street to Washington Boulevard	69.1	13	41	129	406
Washington Boulevard to Slauson Avenue	68.7	12	37	117	371
Slauson Avenue to Los Nietos Road	72.3	27	85	269	849
Los Nietos Road to Telegraph Road	68.6	11	36	115	362
Telegraph Road to Florence Avenue	71.4	22	69	218	690
Florence Avenue to 4th Street	70.8	19	60	190	601

<b>Painter Avenue</b>					
Mulberry Drive to Wallburg Street	67.5	9	28	89	281
<b>Pioneer Boulevard</b>					
Saragosa Street to Washington Boulevard	66.3	7	21	67	213
Washington Boulevard to I-605 NB Ramp	66.3	7	21	67	213
I-605 NB Ramp to Slauson Avenue	68.6	11	36	115	362
Slauson Avenue to Orr and Day Road	62.8	3	10	30	95
Orr and Day Road to Arlee Avenue	55.8	1	2	6	19
Arlee Avenue to Florence Avenue	66.8	8	24	76	239
Florence Avenue to Lakeland Road	67.2	8	26	83	262
<b>Santa Fe Springs Road</b>					
Mulberry Drive to Sorensen Avenue	64.8	5	15	48	151
Sorensen Avenue to Telegraph Road	68.9	12	39	123	388
<b>Shoemaker Avenue</b>					
Telegraph Rd to Florence Avenue	62.3	3	8	27	85
Florence Avenue to Meyer Road	65.6	6	18	57	182
Meyer Road to Sunshine Avenue	59.3	1	4	13	43
Sunshine Avenue to Imperial Highway	61.9	2	8	24	77
Rosecrans Avenue to Rail Crossing	65.0	5	16	50	158
Rail Crossing to Alondra Boulevard	68.8	12	38	120	379

<b>Slauson Avenue</b>					
Santa Fe Springs Road to Sorensen Avenue	70.5	18	56	177	561
Sorensen Avenue to Dice Road	69.4	14	44	138	435
Dice Road to Norwalk Boulevard	72.0	25	79	251	792
Norwalk Boulevard to Pioneer Boulevard	71.3	21	67	213	674
Pioneer Boulevard to Parsons Boulevard	73.4	35	109	346	1,094
<b>Telegraph Road</b>					
Leffingwell Road to Valley View Avenue	70.7	19	59	186	587
Valley View Avenue to Mills Avenue/Florence Avenue	72.6	29	91	288	910
Mills Avenue/Florence Avenue to Carmenita Road	70.3	17	54	169	536
Carmenita Road to Bloomfield Avenue	69.3	13	43	135	426
Bloomfield Avenue to Orr and Day Road	71.0	20	63	199	629
Orr and Day Road to True Avenue	72.9	31	97	308	975
<b>Washington Boulevard</b>					
Calobar Avenue/Rivera Road to Sorensen Avenue	69.7	15	47	148	467
Sorensen Avenue to Norwalk Boulevard	71.1	20	64	204	644
Norwalk Boulevard to Pioneer Boulevard	72.0	25	79	251	792
Pioneer Boulevard to San Gabriel River	72.5	28	89	281	889
<b>Interstate 5</b>					
Valley View Avenue to Rosecrans Avenue (Without Barrier)	86.5	2,119	6,700	21,188	67,003
Valley View Avenue to Rosecrans Avenue (With Barrier)	75.5	168	532	1,683	5,322
Rail track to San Gabriel River (Without Barrier)	86.5	2,119	6,700	21,188	67,003
Rail track to San Gabriel River (With Barrier)	76.1	193	611	1,932	6,111

<b>Interstate 605</b>					
I-5 to City Limit (Without Barrier)	87.7	2,793	8,833	27,931	88,327
I-5 to City Limit (With Barrier)	78.0	299	946	2,993	9,464
Table Notes:					
A - CNEL is estimated 50 feet from the center of the nearest travel direction except for I-5 and I-605, which is estimated at 150 feet from the center of the highway right-of-way.					

**SHEET 4: Existing 2020 Road Traffic Volume Information (Percentages)**

EXISTING 2020 NO PROJECT TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Bloomfield Avenue</b>																	
Telegraph Road to Florence Avenue	20,001	86.63%	2.22%	11.15%	95%	1%	2%	2%	90%	2%	6%	2%	93%	2%	3%	2%	A,B,C,D
Florence Avenue to Imperial Highway	24,828	84.40%	4.36%	11.24%	95%	1%	2%	2%	94%	1%	3%	2%	93%	2%	4%	2%	A,B,C,D
<b>Carmenita Road</b>																	
Painter Avenue to Telegraph Road	25,535	79.79%	7.08%	13.13%	96%	1%	1%	2%	96%	1%	2%	2%	94%	1%	3%	2%	A,B,C,D
Telegraph Road to Florence Avenue	23,562	77.47%	8.27%	14.26%	96%	1%	1%	2%	96%	1%	2%	2%	94%	1%	3%	2%	A,B,C,D
Florence Avenue to Meyer Road	23,471	77.12%	8.35%	14.52%	95%	1%	2%	2%	94%	1%	3%	2%	91%	2%	5%	2%	A,B,C,D
Meyer Road to Leffingwell Road	29,381	77.95%	7.95%	14.10%	94%	1%	2%	2%	94%	1%	3%	2%	92%	2%	4%	2%	A,B,C,D
Leffingwell Road to Imperial Highway	39,516	77.36%	8.50%	14.14%	95%	1%	2%	2%	95%	1%	2%	2%	93%	2%	4%	2%	A,B,C,D
Imperial Highway to Rosecrans Avenue	35,753	76.13%	8.70%	15.16%	95%	1%	2%	2%	95%	1%	2%	2%	92%	2%	4%	2%	A,B,C,D
Rosecrans Avenue to I-5 NB Ramps	40,250	77.08%	8.52%	14.40%	93%	2%	3%	2%	92%	1%	5%	2%	89%	2%	7%	2%	A,B,C,D
I-5 NB Ramp to Firestone Boulevard	46,283	77.34%	8.13%	14.52%	93%	2%	3%	2%	92%	1%	5%	2%	88%	2%	7%	2%	A,B,C,D
Firestone Boulevard to Alondra Boulevard	35,819	77.91%	7.72%	14.37%	94%	1%	3%	2%	92%	1%	5%	2%	87%	3%	9%	2%	A,B,C,D

<b>Imperial Highway</b>																	
Valley View Avenue to Carmenita Road	34,293	77.05%	8.26%	14.69%	95%	1%	2%	2%	95%	1%	3%	2%	92%	1%	5%	2%	A,B,C,D
Carmenita Road to Leffingwell Road	28,538	74.69%	9.38%	15.93%	96%	1%	1%	2%	95%	1%	3%	2%	92%	1%	5%	2%	A,B,C,D
Leffingwell Road to Bloomfield Avenue	63,521	72.95%	9.99%	17.06%	97%	0%	1%	2%	96%	0%	2%	2%	94%	1%	3%	2%	A,B,C,D
<b>Florence Avenue</b>																	
Telegraph Road to Carmenita Road	39,243	75.34%	9.77%	14.89%	97%	0%	1%	2%	96%	0%	2%	2%	94%	1%	3%	2%	A,B,C,D
Carmenita Road to Bloomfield Avenue	37,624	73.37%	10.51%	16.12%	97%	1%	1%	2%	95%	1%	2%	2%	93%	1%	4%	2%	A,B,C,D
Bloomfield Avenue to Pioneer Boulevard	36,185	72.46%	10.61%	16.93%	96%	1%	1%	2%	95%	1%	3%	2%	92%	1%	5%	2%	A,B,C,D
Pioneer Boulevard to Fairford Avenue	47,563	73.49%	9.95%	16.56%	96%	1%	1%	2%	94%	1%	3%	2%	91%	2%	5%	2%	A,B,C,D
<b>Greenleaf Avenue</b>																	
Mulberry Drive to Los Nietos Road	1,049	90.66%	2.55%	6.78%	93%	3%	2%	2%	93%	3%	2%	2%	89%	6%	3%	2%	A,B,C,D
Los Nietos Road to Telegraph Road	8,761	88.36%	3.78%	7.86%	93%	2%	3%	2%	94%	1%	4%	2%	92%	2%	3%	2%	A,B,C,D



<b>Lakeland Road</b>																	
Carmenita Road to Laurel Avenue	3,413	72.17%	9.61%	18.22%	88%	5%	6%	2%	94%	1%	3%	2%	96%	1%	1%	2%	A,B,C,D
Laurel Avenue to Painter Avenue	5,607	85.40%	4.55%	10.05%	92%	3%	3%	2%	97%	0%	1%	2%	95%	1%	1%	2%	A,B,C,D
Painter Avenue to Shoemaker Avenue	1,499	64.40%	13.73%	21.86%	97%	0%	0%	2%	97%	0%	0%	2%	97%	0%	1%	2%	A,B,C,D
Shoemaker Avenue to Bloomfield Avenue	8,961	87.43%	3.36%	9.21%	96%	1%	1%	2%	94%	1%	3%	2%	94%	2%	2%	2%	A,B,C,D
Bloomfield Avenue to Norwalk Boulevard	5,034	91.90%	0.19%	7.91%	97%	0%	1%	2%	98%	0%	0%	2%	97%	1%	1%	2%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	6,675	92.98%	0.09%	6.94%	95%	1%	2%	2%	98%	0%	0%	2%	95%	1%	2%	2%	A,B,C,D
<b>Mulberry Drive</b>																	
Painter Avenue to Santa Fe Springs Road	46,306	82.97%	5.36%	11.67%	97%	1%	1%	2%	97%	0%	1%	2%	96%	1%	1%	2%	A,B,C,D
<b>Norwalk Boulevard</b>																	
Mines Street to Washington Boulevard	23,601	80.58%	7.11%	12.31%	95%	1%	2%	2%	94%	1%	3%	2%	91%	2%	6%	2%	A,B,C,D
Washington Boulevard to Slauson Avenue	39,325	80.27%	7.49%	12.25%	94%	1%	3%	2%	93%	1%	4%	2%	89%	2%	7%	2%	A,B,C,D
Slauson Avenue to Los Nietos Road	37,475	79.28%	8.08%	12.64%	95%	1%	2%	2%	94%	1%	3%	2%	91%	2%	5%	2%	A,B,C,D
Los Nietos Road to Telegraph Road	22,285	84.74%	5.88%	9.38%	96%	1%	1%	2%	97%	0%	1%	2%	94%	1%	3%	2%	A,B,C,D
Telegraph Road to Florence Avenue	34,414	81.84%	7.26%	10.90%	94%	1%	3%	2%	94%	1%	3%	2%	92%	2%	5%	2%	A,B,C,D
Florence Avenue to 4th Street	34,192	77.85%	8.68%	13.47%	94%	1%	2%	2%	93%	1%	4%	2%	90%	2%	6%	2%	A,B,C,D
<b>Painter Avenue</b>																	
Mulberry Drive to Wallburg Street	28,295	79.37%	7.75%	12.88%	96%	1%	1%	2%	96%	0%	1%	2%	94%	1%	3%	2%	A,B,C,D

<b>Pioneer Boulevard</b>																	
Saragosa Street to Washington Boulevard	20,713	75.46%	9.31%	15.24%	98%	0%	0%	2%	97%	0%	1%	2%	95%	1%	2%	2%	A,B,C,D
Washington Boulevard to I-605 NB Ramp	23,358	76.34%	8.42%	15.24%	97%	0%	0%	2%	97%	0%	1%	2%	96%	1%	1%	2%	A,B,C,D
I-605 NB Ramp to Slauson Avenue	29,191	74.96%	9.31%	15.73%	96%	1%	2%	2%	95%	0%	3%	2%	93%	1%	4%	2%	A,B,C,D
Slauson Avenue to Orr and Day Road	11,764	88.85%	0.97%	10.18%	95%	1%	2%	2%	93%	2%	3%	2%	94%	2%	2%	2%	A,B,C,D
Orr and Day Road to Arlee Avenue	3,460	91.43%	0.22%	8.35%	97%	0%	1%	2%	98%	0%	0%	2%	97%	0%	1%	2%	A,B,C,D
Arlee Avenue to Florence Avenue	13,515	83.59%	4.05%	12.36%	95%	1%	2%	2%	90%	2%	6%	2%	87%	3%	8%	2%	A,B,C,D
Florence Avenue to Lakeland Road	25,308	87.81%	3.14%	9.06%	96%	1%	1%	2%	97%	0%	1%	2%	96%	1%	2%	2%	A,B,C,D
<b>Santa Fe Springs Road</b>																	
Mulberry Drive to Sorensen Avenue	13,219	85.81%	4.20%	9.99%	96%	1%	1%	2%	97%	0%	1%	2%	95%	1%	2%	2%	A,B,C,D
Sorensen Avenue to Telegraph Road	17,930	83.82%	4.57%	11.60%	94%	2%	2%	2%	92%	2%	5%	2%	90%	3%	5%	2%	A,B,C,D
<b>Shoemaker Avenue</b>																	
Telegraph Rd to Florence Avenue	6,751	90.34%	1.70%	7.96%	92%	2%	4%	2%	97%	0%	1%	2%	91%	3%	4%	2%	A,B,C,D
Florence Avenue to Meyer Road	14,516	86.87%	3.80%	9.33%	94%	1%	2%	2%	96%	0%	1%	2%	94%	2%	3%	2%	A,B,C,D
Meyer Road to Sunshine Avenue	2,460	77.50%	7.76%	14.73%	96%	0%	2%	2%	95%	0%	3%	2%	93%	0%	4%	2%	A,B,C,D
Sunshine Avenue to Imperial Highway	4,388	75.24%	8.71%	16.06%	96%	0%	2%	2%	95%	0%	3%	2%	93%	0%	4%	2%	A,B,C,D
Rosecrans Avenue to Rail Crossing	12,128	82.25%	5.13%	12.62%	94%	1%	3%	2%	90%	1%	7%	2%	87%	3%	9%	2%	A,B,C,D
Rail Crossing to Alondra Boulevard	16,817	82.66%	6.01%	11.33%	94%	1%	3%	2%	92%	1%	5%	2%	90%	2%	6%	2%	A,B,C,D

<b>Slauson Avenue</b>																	
Santa Fe Springs Road to Sorensen Avenue	40,395	82.39%	5.74%	11.88%	96%	1%	1%	2%	96%	0%	2%	2%	95%	1%	2%	2%	A,B,C,D
Sorensen Avenue to Dice Road	35,508	80.30%	7.70%	12.00%	97%	1%	1%	2%	96%	0%	1%	2%	95%	1%	2%	2%	A,B,C,D
Dice Road to Norwalk Boulevard	44,435	78.84%	7.95%	13.22%	94%	1%	3%	2%	92%	1%	5%	2%	89%	2%	7%	2%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	36,075	77.34%	8.43%	14.22%	95%	1%	2%	2%	93%	1%	4%	2%	89%	2%	7%	2%	A,B,C,D
Pioneer Boulevard to Parsons Boulevard	59,668	76.14%	9.36%	14.50%	95%	1%	2%	2%	94%	1%	3%	2%	91%	2%	6%	2%	A,B,C,D
<b>Telegraph Road</b>																	
Leffingwell Road to Valley View Avenue	35,959	83.13%	6.39%	10.47%	95%	1%	2%	2%	96%	0%	1%	2%	94%	1%	2%	2%	A,B,C,D
Valley View Avenue to Mills Avenue/Florence Avenue	55,133	82.27%	6.62%	11.11%	96%	1%	2%	2%	96%	0%	1%	2%	95%	1%	2%	2%	A,B,C,D
Mills Avenue/Florence Avenue to Carmenita Road	45,275	84.59%	5.50%	9.91%	96%	1%	2%	2%	96%	0%	1%	2%	95%	1%	2%	2%	A,B,C,D
Carmenita Road to Bloomfield Avenue	36,250	84.92%	5.81%	9.28%	95%	1%	2%	2%	96%	0%	1%	2%	94%	1%	2%	2%	A,B,C,D
Bloomfield Avenue to Orr and Day Road	45,497	84.87%	5.53%	9.60%	93%	1%	3%	2%	93%	1%	4%	2%	92%	2%	5%	2%	A,B,C,D
Orr and Day Road to True Avenue	68,209	83.55%	5.88%	10.57%	93%	1%	3%	2%	93%	1%	4%	2%	90%	2%	6%	2%	A,B,C,D
<b>Washington Boulevard</b>																	
Calobar Avenue/Rivera Road to Sorensen Avenue	31,546	75.58%	10.54%	13.88%	95.60%	0.86%	1.59%	1.95%	96.18%	0.42%	1.44%	1.96%	93.84%	1.25%	3.00%	1.92%	A,B,C,D
Sorensen Avenue to Norwalk Boulevard	41,856	75.25%	9.87%	14.88%	95.39%	0.92%	1.74%	1.95%	96.24%	0.40%	1.40%	1.96%	94.31%	1.08%	2.69%	1.92%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	55,795	76.49%	9.56%	13.94%	95.62%	0.92%	1.51%	1.95%	96.16%	0.48%	1.40%	1.96%	94.12%	1.23%	2.72%	1.92%	A,B,C,D
Pioneer Boulevard to San Gabriel River	61,348	77.55%	8.82%	13.63%	95.76%	0.88%	1.41%	1.95%	95.83%	0.51%	1.70%	1.96%	93.61%	1.27%	3.21%	1.91%	A,B,C,D

<b>Interstate 5</b>																	
Valley View Avenue to Rosecrans Avenue (Without Barrier)	173,000	50.00%	12.50%	37.50%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	A,B,C,D
Valley View Avenue to Rosecrans Avenue (With Barrier)	173,000	50.00%	12.50%	37.50%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	A,B,C,D
Rail track to San Gabriel River (Without Barrier)	192,000	50.00%	12.50%	37.50%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	A,B,C,D
Rail track to San Gabriel River (With Barrier)	192,000	50.00%	12.50%	37.50%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	90.89%	3.50%	3.70%	1.91%	A,B,C,D
<b>Interstate 605</b>																	
I-5 to City Limit (Without Barrier)	268,000	50.00%	12.50%	37.50%	87.39%	4.10%	6.60%	1.91%	87.39%	4.10%	6.60%	1.91%	87.39%	4.10%	6.60%	1.91%	A,B,C,D
I-5 to City Limit (With Barrier)	268,000	50.00%	12.50%	37.50%	87.39%	4.10%	6.60%	1.91%	87.39%	4.10%	6.60%	1.91%	87.39%	4.10%	6.60%	1.91%	A,B,C,D
Table Notes:																	
A - City traffic volume informaton based on modeling provided for Fehr and Peers for the GPTZCU (Fehr and Peers, 2021a and 2021b). I-5 and I-605 traffic volume information based on Caltrans traffic count data (Caltrans 2019a and 2019b).																	
B - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary slightly along different indivual segments within the modeled segment start and end point.																	
C - Time of day split refers to what percentage of the listed ADT occurs during the daytime (7 AM to 7 PM), evening ( 7 PM to 10 PM), and nighttime (10 PM to 7 AM) time periods																	
D - Fleet mix by time of day refers to the percentage of autos, trucks, etc. that make up total day, evening, and nighttime traffic.																	

**SHEET 5: Existing 2020 Road Traffic Volume Information (Volumes)**

EXISTING (2020) TRAFFIC VOLUMES																	
Road / Segment	ADT	DAY (7 AM to 7 PM)					EVENING (7 PM to 10 PM)					NIGHT (10 PM to 7 AM)					NOTES
		AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	
<b>Bloomfield Avenue</b>																	
Telegraph Road to Florence Avenue	20,001	16,519	192	280	337	17,328	398	10	27	8	444	2,071	42	75	42	2,230	A,B,C
Florence Avenue to Imperial Highway	24,828	19,898	261	389	406	20,954	1,016	12	34	21	1,082	2,585	55	99	53	2,791	A,B,C
<b>Carmenita Road</b>																	
Painter Avenue to Telegraph Road	25,535	19,499	175	301	398	20,373	1,727	10	36	35	1,808	3,145	43	102	64	3,354	A,B,C
Telegraph Road to Florence Avenue	23,562	17,525	129	241	358	18,253	1,862	11	38	38	1,949	3,157	40	99	64	3,360	A,B,C
Florence Avenue to Meyer Road	23,471	17,196	199	355	351	18,102	1,843	19	61	38	1,960	3,106	68	172	63	3,409	A,B,C
Meyer Road to Leffingwell Road	29,381	21,600	341	522	441	22,903	2,204	22	66	45	2,336	3,797	81	186	77	4,142	A,B,C
Leffingwell Road to Imperial Highway	39,516	29,031	368	577	592	30,569	3,191	24	79	65	3,360	5,174	89	218	106	5,588	A,B,C
Imperial Highway to Rosecrans Avenue	35,753	25,959	254	476	530	27,219	2,960	20	71	60	3,112	5,014	88	217	102	5,422	A,B,C
Rosecrans Avenue to I-5 NB Ramps	40,250	28,878	499	1,057	589	31,023	3,159	33	174	64	3,431	5,177	124	390	106	5,797	A,B,C
I-5 NB Ramp to Firestone Boulevard	46,283	33,322	565	1,228	680	35,795	3,455	40	200	71	3,765	5,943	154	504	121	6,723	A,B,C
Firestone Boulevard to Alondra Boulevard	35,819	26,168	387	816	534	27,906	2,553	28	133	52	2,766	4,483	134	439	91	5,147	A,B,C

<b>Imperial Highway</b>																	
Valley View Avenue to Carmenita Road	34,293	25,220	245	443	515	26,423	2,690	16	72	55	2,833	4,642	68	233	95	5,038	A,B,C
Carmenita Road to Leffingwell Road	28,538	20,472	144	281	418	21,315	2,542	15	69	52	2,678	4,175	62	223	85	4,545	A,B,C
Leffingwell Road to Bloomfield Avenue	63,521	44,804	209	409	914	46,336	6,102	21	99	125	6,346	10,204	93	333	208	10,839	A,B,C
<b>Florence Avenue</b>																	
Telegraph Road to Carmenita Road	39,243	28,606	140	237	584	29,567	3,677	16	66	75	3,833	5,483	59	189	112	5,843	A,B,C
Carmenita Road to Bloomfield Avenue	37,624	26,661	166	233	544	27,604	3,768	23	87	77	3,955	5,615	86	249	115	6,066	A,B,C
Bloomfield Avenue to Pioneer Boulevard	36,185	25,267	155	282	516	26,220	3,639	24	102	74	3,838	5,630	90	292	115	6,127	A,B,C
Pioneer Boulevard to Fairford Avenue	47,563	33,607	237	425	686	34,955	4,469	33	138	91	4,732	7,160	137	433	146	7,876	A,B,C
<b>Greenleaf Avenue</b>																	
Mulberry Drive to Los Nietos Road	1,049	885	26	23	18	951	25	1	1	1	27	63	4	2	1	71	A,B,C
Los Nietos Road to Telegraph Road	8,761	7,204	143	246	147	7,741	311	2	12	6	331	636	16	24	13	689	A,B,C
<b>Lakeland Road</b>																	
Carmenita Road to Laurel Avenue	3,413	2,161	121	136	44	2,463	309	3	10	6	328	595	7	8	12	622	A,B,C
Laurel Avenue to Painter Avenue	5,607	4,402	136	160	90	4,788	247	1	2	5	255	538	7	8	11	564	A,B,C
Painter Avenue to Shoemaker Avenue	1,499	941	3	3	19	966	201	0	1	4	206	319	1	2	7	328	A,B,C
Shoemaker Avenue to Bloomfield Avenue	8,961	7,498	101	83	153	7,835	283	4	8	6	301	778	15	17	16	825	A,B,C
Bloomfield Avenue to Norwalk Boulevard	5,034	4,482	19	34	91	4,627	9	0	0	0	10	384	3	3	8	398	A,B,C
Norwalk Boulevard to Pioneer Boulevard	6,675	5,914	60	112	121	6,207	6	0	0	0	6	438	6	10	9	463	A,B,C

<b>Mulberry Drive</b>																	
Painter Avenue to Santa Fe Springs Road	46,306	37,082	211	370	757	38,419	2,397	9	28	49	2,482	5,182	38	78	106	5,405	A,B,C
<b>Norwalk Boulevard</b>																	
Mines Street to Washington Boulevard	23,601	17,998	189	464	367	19,018	1,577	10	57	32	1,677	2,640	44	167	54	2,905	A,B,C
Washington Boulevard to Slauson Avenue	39,325	29,709	377	873	606	31,565	2,739	27	123	56	2,944	4,286	100	342	87	4,816	A,B,C
Slauson Avenue to Los Nietos Road	37,475	28,297	273	561	577	29,709	2,859	22	90	58	3,029	4,309	83	257	88	4,736	A,B,C
Los Nietos Road to Telegraph Road	22,285	18,188	109	218	371	18,885	1,273	3	8	26	1,310	1,962	26	63	40	2,090	A,B,C
Telegraph Road to Florence Avenue	34,414	26,494	383	747	541	28,164	2,358	18	73	48	2,498	3,436	73	172	70	3,752	A,B,C
Florence Avenue to 4th Street	34,192	25,105	347	653	512	26,618	2,769	28	114	57	2,968	4,132	104	286	84	4,606	A,B,C
<b>Painter Avenue</b>																	
Mulberry Drive to Wallburg Street	28,295	21,531	175	313	439	22,458	2,110	9	32	43	2,194	3,440	38	94	70	3,643	A,B,C
<b>Pioneer Boulevard</b>																	
Saragosa Street to Washington Boulevard	20,713	15,245	32	42	311	15,629	1,865	4	21	38	1,928	3,011	17	67	61	3,156	A,B,C
Washington Boulevard to I-605 NB Ramp	23,358	17,343	63	72	354	17,831	1,911	4	12	39	1,966	3,418	23	50	70	3,561	A,B,C
I-605 NB Ramp to Slauson Avenue	29,191	20,989	135	329	428	21,882	2,586	11	69	53	2,719	4,265	47	192	87	4,591	A,B,C
Slauson Avenue to Orr and Day Road	11,764	9,896	132	223	202	10,452	106	3	3	2	114	1,124	22	29	23	1,198	A,B,C
Orr and Day Road to Arlee Avenue	3,460	3,074	8	19	63	3,164	7	0	0	0	7	279	1	3	6	289	A,B,C
Arlee Avenue to Florence Avenue	13,515	10,704	149	226	218	11,297	493	10	34	10	547	1,461	49	130	30	1,670	A,B,C
Florence Avenue to Lakeland Road	25,308	21,370	158	258	436	22,222	771	2	5	16	794	2,191	22	34	45	2,292	A,B,C

<b>Santa Fe Springs Road</b>																	
Mulberry Drive to Sorensen Avenue	13,219	10,910	70	141	223	11,344	538	3	3	11	555	1,260	15	20	26	1,320	A,B,C
Sorensen Avenue to Telegraph Road	17,930	14,173	226	341	289	15,030	752	14	39	15	820	1,877	56	109	38	2,080	A,B,C
<b>Shoemaker Avenue</b>																	
Telegraph Rd to Florence Avenue	6,751	5,600	126	258	114	6,099	112	0	1	2	115	490	15	23	10	537	A,B,C
Florence Avenue to Meyer Road	14,516	11,872	183	313	242	12,610	530	3	8	11	552	1,267	24	37	26	1,354	A,B,C
Meyer Road to Sunshine Avenue	2,460	1,836	4	29	37	1,907	181	0	6	4	191	339	1	15	7	362	A,B,C
Sunshine Avenue to Imperial Highway	4,388	3,173	7	57	65	3,302	362	1	12	7	382	658	3	30	13	705	A,B,C
Rosecrans Avenue to Rail Crossing	12,128	9,354	138	293	191	9,976	558	9	44	11	623	1,333	39	130	27	1,530	A,B,C
Rail Crossing to Alondra Boulevard	16,817	13,052	188	394	266	13,900	925	11	55	19	1,010	1,718	39	114	35	1,906	A,B,C
<b>Slauson Avenue</b>																	
Santa Fe Springs Road to Sorensen Avenue	40,395	32,056	219	350	654	33,280	2,225	10	37	45	2,317	4,558	46	101	93	4,798	A,B,C
Sorensen Avenue to Dice Road	35,508	27,518	166	267	562	28,512	2,638	9	35	54	2,736	4,048	39	91	83	4,260	A,B,C
Dice Road to Norwalk Boulevard	44,435	32,900	493	967	671	35,031	3,260	36	168	67	3,531	5,198	138	431	106	5,874	A,B,C
Norwalk Boulevard to Pioneer Boulevard	36,075	26,375	344	644	538	27,901	2,822	28	135	58	3,043	4,581	110	347	93	5,131	A,B,C
Pioneer Boulevard to Parsons Boulevard	59,668	43,052	509	992	879	45,431	5,257	37	184	107	5,585	7,844	150	497	160	8,652	A,B,C



<b>Telegraph Road</b>																	
Leffingwell Road to Valley View Avenue	35,959	28,497	260	555	582	29,894	2,212	10	33	45	2,300	3,556	45	93	73	3,766	A,B,C
Valley View Avenue to Mills Avenue/Florence Avenue	55,133	43,412	366	694	886	45,358	3,510	17	50	72	3,649	5,795	73	140	118	6,126	A,B,C
Mills Avenue/Florence Avenue to Carmenita Road	45,275	36,587	317	646	747	38,296	2,399	10	33	49	2,491	4,243	52	106	87	4,488	A,B,C
Carmenita Road to Bloomfield Avenue	36,250	29,275	274	636	597	30,783	2,026	8	29	41	2,105	3,177	38	83	65	3,362	A,B,C
Bloomfield Avenue to Orr and Day Road	45,497	35,996	548	1,335	735	38,614	2,353	19	97	48	2,517	4,013	72	199	82	4,366	A,B,C
Orr and Day Road to True Avenue	68,209	53,222	807	1,876	1,086	56,991	3,724	37	174	76	4,011	6,520	141	413	133	7,207	A,B,C
<b>Washington Boulevard</b>																	
Calobar Avenue/Rivera Road to Sorensen Avenue	31,546	22,793	206	378	465	23,843	3,198	14	48	65	3,326	4,108	55	131	84	4,377	A,B,C
Sorensen Avenue to Norwalk Boulevard	41,856	30,046	290	549	613	31,497	3,975	16	58	81	4,130	5,874	67	168	120	6,229	A,B,C
Norwalk Boulevard to Pioneer Boulevard	55,795	40,810	391	644	833	42,678	5,131	26	75	105	5,337	7,323	96	212	149	7,780	A,B,C
Pioneer Boulevard to San Gabriel River	61,348	45,557	419	670	930	47,576	5,188	28	92	106	5,413	7,825	106	268	160	8,359	A,B,C
Table Notes:																	
A - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary along different individual segments within the modeled segment start and end point.																	
B - Day, evening, and nighttime volumes are for the entire time period (e.g., there are 16,519 autos on Bloomfield Avenue b/n Telegraph and Florence during the 12-hour daytime period).																	
C - Traffic volume provided by Fehr and Peers (Fehr and Peers, 2021a and 2021b). Traffic volumes may be estimated based on one or more road segments including or adjacent to the listed segment. Day, evening, and night volumes estimated using day, evening, and night traffic volume percentages provided by Fehr and Peers for the listed roadway segment under the 2040 Future Baseline scenario (Fehr and Peers, 2021a).																	

**SHEET 6: Future 2040 No Project Traffic Noise Contours**

Road / Segment	Estimated CNEL 50 Feet from Road Center Line <sup>(A)</sup>	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 CNEL	70 CNEL	65 CNEL	60 CNEL
<b>Bloomfield Avenue</b>					
Telegraph Road to Florence Avenue	70.3	17	54	169	536
Florence Avenue to Imperial Highway	69.5	14	45	141	446
<b>Carmenita Road</b>					
Painter Avenue to Telegraph Road	67.5	9	28	89	281
Telegraph Road to Florence Avenue	67.2	8	26	83	262
Florence Avenue to Meyer Road	67.9	10	31	97	308
Meyer Road to Leffingwell Road	68.3	11	34	107	338
Leffingwell Road to Imperial Highway	71.7	23	74	234	740
Imperial Highway to Rosecrans Avenue	72.2	26	83	262	830
Rosecrans Avenue to I-5 NB Ramps	72.1	26	81	256	811
I-5 NB Ramp to Firestone Boulevard	71.9	24	77	245	774
Firestone Boulevard to Alondra Boulevard	71.7	23	74	234	740
<b>Imperial Highway</b>					
Valley View Avenue to Carmenita Road	70.6	18	57	182	574
Carmenita Road to Leffingwell Road	70.0	16	50	158	500
Leffingwell Road to Bloomfield Avenue	73.1	32	102	323	1,021

<b>Florence Avenue</b>					
Telegraph Road to Carmenita Road	70.7	19	59	186	587
Carmenita Road to Bloomfield Avenue	72.8	30	95	301	953
Bloomfield Avenue to Pioneer Boulevard	71.6	23	72	229	723
Pioneer Boulevard to Fairford Avenue	72.7	29	93	294	931
<b>Greenleaf Avenue</b>					
Mulberry Drive to Los Nietos Road	60.4	2	5	17	55
Los Nietos Road to Telegraph Road	62.9	3	10	31	97
<b>Lakeland Road</b>					
Carmenita Road to Laurel Avenue	62.3	3	8	27	85
Laurel Avenue to Painter Avenue	61.9	2	8	24	77
Painter Avenue to Shoemaker Avenue	60.2	2	5	17	52
Shoemaker Avenue to Bloomfield Avenue	63.0	3	10	32	100
Bloomfield Avenue to Norwalk Boulevard	58.5	1	4	11	35
Norwalk Boulevard to Pioneer Boulevard	61.0	2	6	20	63
<b>Mulberry Drive</b>					
Painter Avenue to Santa Fe Springs Road	70.0	16	50	158	500
<b>Norwalk Boulevard</b>					
Mines Street to Washington Boulevard	69.8	15	48	151	477
Washington Boulevard to Slauson Avenue	69.1	13	41	129	406
Slauson Avenue to Los Nietos Road	72.8	30	95	301	953
Los Nietos Road to Telegraph Road	69.1	13	41	129	406
Telegraph Road to Florence Avenue	71.1	20	64	204	644
Florence Avenue to 4th Street	70.7	19	59	186	587

<b>Painter Avenue</b>					
Mulberry Drive to Wallburg Street	67.2	8	26	83	262
<b>Pioneer Boulevard</b>					
Saragosa Street to Washington Boulevard	66.6	7	23	72	229
Washington Boulevard to I-605 NB Ramp	66.5	7	22	71	223
I-605 NB Ramp to Slauson Avenue	68.4	11	35	109	346
Slauson Avenue to Orr and Day Road	64.3	4	13	43	135
Orr and Day Road to Arlee Avenue	59.2	1	4	13	42
Arlee Avenue to Florence Avenue	67.6	9	29	91	288
Florence Avenue to Lakeland Road	67.7	9	29	93	294
<b>Santa Fe Springs Road</b>					
Mulberry Drive to Sorensen Avenue	65.8	6	19	60	190
Sorensen Avenue to Telegraph Road	70.0	16	50	158	500
<b>Shoemaker Avenue</b>					
Telegraph Rd to Florence Avenue	63.7	4	12	37	117
Florence Avenue to Meyer Road	64.7	5	15	47	148
Meyer Road to Sunshine Avenue	63.9	4	12	39	123
Sunshine Avenue to Imperial Highway	65.4	5	17	55	173
Rosecrans Avenue to Rail Crossing	66.2	7	21	66	208
Rail Crossing to Alondra Boulevard	69.5	14	45	141	446

<b>Slauson Avenue</b>					
Santa Fe Springs Road to Sorensen Avenue	70.3	17	54	169	536
Sorensen Avenue to Dice Road	69.5	14	45	141	446
Dice Road to Norwalk Boulevard	72.0	25	79	251	792
Norwalk Boulevard to Pioneer Boulevard	71.5	22	71	223	706
Pioneer Boulevard to Passons Boulevard	73.0	32	100	315	998
<b>Telegraph Road</b>					
Leffingwell Road to Valley View Avenue	70.8	19	60	190	601
Valley View Avenue to Mills Avenue/Florence Avenue	72.5	28	89	281	889
Mills Avenue/Florence Avenue to Carmenita Road	70.2	17	52	166	524
Carmenita Road to Bloomfield Avenue	68.8	12	38	120	379
Bloomfield Avenue to Orr and Day Road	70.7	19	59	186	587
Orr and Day Road to True Avenue	73.0	32	100	315	998
<b>Washington Boulevard</b>					
Calobar Avenue/Rivera Road to Sorensen Avenue	69.6	14	46	144	456
Sorensen Avenue to Norwalk Boulevard	76.4	69	218	690	2,183
Norwalk Boulevard to Pioneer Boulevard	72.0	25	79	251	792
Pioneer Boulevard to San Gabriel River	72.2	26	83	262	830
<b>Interstate 5</b>					
Valley View Avenue to Rosecrans Avenue (Without Barrier)	86.7	2,219	7,016	22,187	70,160
Valley View Avenue to Rosecrans Avenue (With Barrier)	75.7	176	557	1,762	5,573
Rail track to San Gabriel River (Without Barrier)	86.7	2,219	7,016	22,187	70,160
Rail track to San Gabriel River (With Barrier)	76.2	198	625	1,977	6,253

<b>Interstate 605</b>					
I-5 to City Limit (Without Barrier)	87.8	2,858	9,038	28,582	90,384
I-5 to City Limit (With Barrier)	78.1	306	968	3,063	9,685
Table Notes:					
A - CNEL is estimated 50 feet from the center of the nearest travel direction except for I-5 and I-605, which is estimated at 150 feet from the center of the highway right-of-way.					

**SHEET 7: Future 2040 (No Project) Road Traffic Volume Information (Percentages)**

FUTURE 2040 NO PROJECT TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
Bloomfield Avenue																	
Telegraph Road to Florence Avenue	22,195	69.88%	20.64%	9.48%	94%	1%	2%	3%	95%	0%	2%	3%	92%	2%	4%	2%	A,B,C,D
Florence Avenue to Imperial Highway	26,225	71.10%	19.07%	9.83%	94%	1%	2%	3%	94%	1%	3%	3%	91%	2%	4%	2%	A,B,C,D
Carmenita Road																	
Painter Avenue to Telegraph Road	24,335	77.38%	9.65%	12.97%	95%	1%	2%	3%	95%	0%	2%	3%	92%	2%	4%	2%	A,B,C,D
Telegraph Road to Florence Avenue	22,749	76.11%	9.74%	14.15%	95%	1%	2%	3%	96%	0%	1%	3%	92%	1%	4%	2%	A,B,C,D
Florence Avenue to Meyer Road	22,168	76.08%	9.43%	14.50%	94%	1%	2%	3%	92%	1%	4%	2%	89%	2%	6%	2%	A,B,C,D
Meyer Road to Leffingwell Road	25,976	79.43%	6.20%	14.36%	93%	2%	2%	2%	94%	1%	3%	2%	90%	2%	6%	2%	A,B,C,D
Leffingwell Road to Imperial Highway	36,751	78.77%	6.93%	14.29%	94%	1%	2%	3%	95%	1%	2%	3%	91%	2%	5%	2%	A,B,C,D
Imperial Highway to Rosecrans Avenue	33,949	75.68%	9.27%	15.05%	94%	1%	2%	3%	95%	1%	2%	3%	91%	2%	5%	2%	A,B,C,D
Rosecrans Avenue to I-5 NB Ramps	37,613	78.46%	6.77%	14.76%	91%	2%	5%	2%	94%	1%	3%	2%	86%	3%	9%	2%	A,B,C,D
I-5 NB Ramp to Firestone Boulevard	43,064	77.87%	7.11%	15.02%	92%	2%	4%	2%	92%	1%	4%	2%	85%	3%	10%	2%	A,B,C,D
Firestone Boulevard to Alondra Boulevard	35,009	71.08%	14.75%	14.18%	93%	1%	3%	2%	95%	0%	2%	3%	84%	3%	11%	2%	A,B,C,D

<b>Imperial Highway</b>																	
Valley View Avenue to Carmenita Road	31,238	74.90%	9.50%	15.60%	95%	1%	2%	3%	94%	1%	3%	3%	90%	1%	6%	2%	A,B,C,D
Carmenita Road to Leffingwell Road	25,412	75.42%	6.99%	17.59%	95%	1%	1%	3%	91%	1%	5%	2%	90%	2%	6%	2%	A,B,C,D
Leffingwell Road to Bloomfield Avenue	56,725	76.96%	4.77%	18.28%	96%	0%	1%	3%	93%	1%	4%	2%	93%	1%	4%	2%	A,B,C,D
<b>Florence Avenue</b>																	
Telegraph Road to Carmenita Road	37,968	75.03%	8.52%	16.45%	96%	1%	1%	3%	93%	1%	4%	2%	93%	1%	4%	2%	A,B,C,D
Carmenita Road to Bloomfield Avenue	36,697	72.86%	9.56%	17.58%	96%	1%	1%	3%	92%	1%	5%	2%	92%	1%	4%	2%	A,B,C,D
Bloomfield Avenue to Pioneer Boulevard	34,045	72.83%	8.21%	18.96%	95%	1%	2%	3%	93%	1%	3%	2%	91%	1%	5%	2%	A,B,C,D
Pioneer Boulevard to Fairford Avenue	45,181	75.62%	6.22%	18.15%	95%	1%	2%	3%	92%	1%	4%	2%	90%	2%	6%	2%	A,B,C,D
<b>Greenleaf Avenue</b>																	
Mulberry Drive to Los Nietos Road	4,816	26.35%	71.91%	1.74%	95%	2%	1%	3%	95%	0%	2%	3%	89%	5%	3%	2%	A,B,C,D
Los Nietos Road to Telegraph Road	11,420	61.50%	33.29%	5.21%	93%	2%	3%	2%	97%	0%	1%	3%	93%	2%	3%	2%	A,B,C,D
<b>Lakeland Road</b>																	
Carmenita Road to Laurel Avenue	4,883	45.46%	44.56%	9.98%	87%	5%	6%	2%	96%	0%	2%	3%	94%	1%	2%	3%	A,B,C,D
Laurel Avenue to Painter Avenue	5,691	78.86%	12.84%	8.30%	91%	3%	4%	2%	95%	1%	2%	3%	94%	1%	2%	3%	A,B,C,D
Painter Avenue to Shoemaker Avenue	3,105	33.71%	57.31%	8.98%	97%	0%	0%	3%	96%	0%	1%	3%	96%	0%	1%	3%	A,B,C,D
Shoemaker Avenue to Bloomfield Avenue	8,207	86.87%	3.22%	9.92%	95%	1%	1%	3%	95%	1%	2%	3%	94%	2%	2%	3%	A,B,C,D
Bloomfield Avenue to Norwalk Boulevard	3,402	90.53%	0.32%	9.15%	96%	0%	1%	3%	97%	0%	0%	3%	96%	1%	1%	3%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	6,895	74.82%	18.89%	6.29%	93%	1%	3%	2%	97%	0%	1%	3%	93%	2%	3%	2%	A,B,C,D



<b>Mulberry Drive</b>																	
Painter Avenue to Santa Fe Springs Road	41,163	85.85%	1.78%	12.37%	96%	1%	1%	3%	94%	1%	3%	3%	95%	1%	2%	3%	A,B,C,D
<b>Norwalk Boulevard</b>																	
Mines Street to Washington Boulevard	25,441	72.27%	15.88%	11.85%	93%	1%	3%	2%	94%	1%	3%	2%	90%	1%	7%	2%	A,B,C,D
Washington Boulevard to Slauson Avenue	37,243	82.03%	4.26%	13.71%	92%	1%	4%	2%	90%	1%	7%	2%	87%	2%	8%	2%	A,B,C,D
Slauson Avenue to Los Nietos Road	37,714	76.60%	9.54%	13.86%	94%	1%	3%	3%	94%	1%	3%	3%	90%	2%	6%	2%	A,B,C,D
Los Nietos Road to Telegraph Road	21,337	83.00%	5.48%	11.51%	95%	1%	1%	3%	93%	1%	4%	2%	93%	1%	4%	2%	A,B,C,D
Telegraph Road to Florence Avenue	30,596	86.62%	0.76%	12.62%	93%	1%	3%	2%	88%	3%	7%	2%	91%	2%	5%	2%	A,B,C,D
Florence Avenue to 4th Street	30,834	81.90%	3.07%	15.02%	93%	2%	3%	2%	91%	1%	5%	2%	88%	2%	7%	2%	A,B,C,D
<b>Painter Avenue</b>																	
Mulberry Drive to Wallburg Street	24,903	83.82%	2.13%	14.05%	95%	1%	1%	3%	90%	2%	6%	2%	93%	1%	3%	2%	A,B,C,D
<b>Pioneer Boulevard</b>																	
Saragosa Street to Washington Boulevard	23,111	70.45%	15.96%	13.58%	97%	0%	0%	3%	94%	1%	3%	3%	97%	0%	1%	3%	A,B,C,D
Washington Boulevard to I-605 NB Ramp	23,217	72.89%	11.78%	15.33%	97%	0%	0%	3%	97%	0%	1%	3%	95%	1%	1%	3%	A,B,C,D
I-605 NB Ramp to Slauson Avenue	29,237	74.84%	8.68%	16.48%	96%	0%	1%	3%	94%	1%	3%	3%	93%	1%	3%	2%	A,B,C,D
Slauson Avenue to Orr and Day Road	13,984	69.88%	21.66%	8.46%	94%	1%	2%	3%	94%	1%	3%	2%	94%	2%	2%	3%	A,B,C,D
Orr and Day Road to Arlee Avenue	4,923	53.59%	40.32%	6.08%	97%	0%	1%	3%	94%	1%	3%	3%	96%	0%	1%	3%	A,B,C,D
Arlee Avenue to Florence Avenue	14,503	78.97%	8.81%	12.23%	93%	2%	3%	2%	95%	1%	2%	3%	84%	3%	10%	2%	A,B,C,D
Florence Avenue to Lakeland Road	22,432	88.80%	0.34%	10.86%	94%	1%	2%	3%	88%	2%	7%	2%	93%	2%	3%	2%	A,B,C,D

<b>Santa Fe Springs Road</b>																	
Mulberry Drive to Sorensen Avenue	14,729	70.91%	19.78%	9.30%	96%	1%	1%	3%	95%	0%	2%	3%	95%	1%	1%	3%	A,B,C,D
Sorensen Avenue to Telegraph Road	21,847	65.57%	24.78%	9.65%	93%	2%	2%	2%	96%	0%	1%	3%	89%	3%	6%	2%	A,B,C,D
<b>Shoemaker Avenue</b>																	
Telegraph Rd to Florence Avenue	8,964	59.37%	36.09%	4.54%	93%	1%	3%	2%	95%	0%	2%	3%	92%	2%	3%	2%	A,B,C,D
Florence Avenue to Meyer Road	12,297	89.58%	0.45%	9.97%	94%	1%	2%	3%	94%	1%	2%	3%	94%	1%	2%	3%	A,B,C,D
Meyer Road to Sunshine Avenue	6,434	38.08%	55.32%	6.60%	95%	0%	2%	3%	94%	0%	3%	3%	91%	0%	6%	2%	A,B,C,D
Sunshine Avenue to Imperial Highway	8,504	48.51%	42.14%	9.35%	94%	0%	3%	3%	93%	1%	4%	2%	91%	0%	7%	2%	A,B,C,D
Rosecrans Avenue to Rail Crossing	12,706	68.72%	19.18%	12.10%	92%	2%	4%	2%	92%	1%	5%	2%	83%	3%	12%	2%	A,B,C,D
Rail Crossing to Alondra Boulevard	16,626	74.69%	14.12%	11.19%	92%	2%	4%	2%	93%	1%	4%	2%	87%	3%	8%	2%	A,B,C,D
<b>Slauson Avenue</b>																	
Santa Fe Springs Road to Sorensen Avenue	36,946	83.62%	4.12%	12.26%	96%	1%	1%	3%	94%	1%	3%	3%	94%	1%	3%	3%	A,B,C,D
Sorensen Avenue to Dice Road	33,784	84.52%	3.01%	12.46%	96%	1%	1%	3%	92%	1%	5%	2%	94%	1%	3%	3%	A,B,C,D
Dice Road to Norwalk Boulevard	41,503	83.68%	2.58%	13.75%	93%	1%	3%	2%	90%	2%	6%	2%	87%	2%	9%	2%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	35,907	79.25%	6.29%	14.46%	94%	1%	2%	3%	90%	1%	6%	2%	88%	2%	8%	2%	A,B,C,D
Pioneer Boulevard to Parsons Boulevard	56,869	80.45%	3.57%	15.98%	96%	1%	1%	3%	92%	1%	5%	2%	91%	1%	5%	2%	A,B,C,D

<b>Telegraph Road</b>																	
Leffingwell Road to Valley View Avenue	35,320	83.00%	4.50%	12.50%	96%	1%	1%	3%	96%	1%	1%	3%	95%	1%	2%	3%	A,B,C,D
Valley View Avenue to Mills Avenue/Florence Avenue	51,469	83.93%	3.32%	12.75%	96%	1%	1%	3%	94%	1%	2%	3%	95%	1%	2%	3%	A,B,C,D
Mills Avenue/Florence Avenue to Carmenita Road	43,922	82.64%	7.58%	9.78%	96%	1%	1%	3%	95%	0%	2%	3%	94%	1%	2%	3%	A,B,C,D
Carmenita Road to Bloomfield Avenue	35,040	84.62%	6.04%	9.34%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
Bloomfield Avenue to Orr and Day Road	43,226	85.76%	5.27%	8.96%	93%	1%	3%	2%	94%	1%	3%	2%	91%	2%	5%	2%	A,B,C,D
Orr and Day Road to True Avenue	68,037	84.44%	4.83%	10.73%	93%	1%	3%	2%	93%	1%	4%	2%	89%	2%	7%	2%	A,B,C,D
<b>Washington Boulevard</b>																	
Carobar Avenue/Rivera Road to Sorensen Avenue	30,926	78.58%	7.09%	14.33%	96%	0%	1%	3%	95%	0%	2%	3%	94%	1%	2%	3%	A,B,C,D
Sorensen Avenue to Norwalk Boulevard	38,593	81.50%	1.89%	16.60%	96%	0%	1%	3%	95%	1%	2%	3%	95%	1%	2%	3%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	54,341	78.27%	7.06%	14.67%	96%	1%	1%	3%	93%	1%	4%	2%	94%	1%	2%	3%	A,B,C,D
Pioneer Boulevard to San Gabriel River	59,204	80.48%	5.11%	14.41%	96%	1%	1%	3%	94%	1%	3%	2%	95%	1%	2%	3%	A,B,C,D

**SHEET 8: Future 2040 No Project Road Traffic Volume Information (Volumes)**

FUTURE 2040 NO PROJECT TRAFFIC VOLUMES																	
Road / Segment	ADT	DAY (7 AM to 7 PM)					EVENING (7 PM to 10 PM)					NIGHT (10 PM to 7 AM)					NOTES
		AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	
<b>Bloomfield Avenue</b>																	
Telegraph Road to Florence Avenue	22,195	14,594	202	325	390	15,510	4,345	21	99	116	4,581	1,927	43	83	51	2,104	A,B,C
Florence Avenue to Imperial Highway	26,225	17,589	230	358	470	18,647	4,723	26	126	126	5,001	2,357	52	105	63	2,577	A,B,C
<b>Carmenita Road</b>																	
Painter Avenue to Telegraph Road	24,335	17,832	184	339	476	18,830	2,241	9	39	60	2,349	2,901	49	128	77	3,156	A,B,C
Telegraph Road to Florence Avenue	22,749	16,441	146	289	439	17,314	2,118	10	31	57	2,216	2,971	46	124	79	3,220	A,B,C
Florence Avenue to Meyer Road	22,168	15,832	206	403	423	16,864	1,928	18	92	51	2,090	2,860	74	204	76	3,214	A,B,C
Meyer Road to Leffingwell Road	25,976	19,292	333	494	515	20,634	1,508	14	50	40	1,612	3,352	83	206	89	3,731	A,B,C
Leffingwell Road to Imperial Highway	36,751	27,284	362	575	728	28,949	2,417	15	51	65	2,548	4,780	93	253	128	5,253	A,B,C
Imperial Highway to Rosecrans Avenue	33,949	24,279	264	503	648	25,694	2,984	18	65	80	3,147	4,635	94	256	124	5,108	A,B,C
Rosecrans Avenue to I-5 NB Ramps	37,613	26,920	526	1,348	719	29,513	2,382	20	82	64	2,548	4,785	139	501	128	5,552	A,B,C
I-5 NB Ramp to Firestone Boulevard	43,064	30,698	554	1,462	819	33,533	2,831	29	127	76	3,063	5,502	168	652	147	6,469	A,B,C
Firestone Boulevard to Alondra Boulevard	35,009	23,129	317	819	617	24,883	4,915	25	90	131	5,162	4,174	134	544	111	4,964	A,B,C

<b>Imperial Highway</b>																	
Valley View Avenue to Carmenita Road	31,238	22,201	216	389	593	23,398	2,790	19	84	74	2,968	4,401	72	281	117	4,872	A,B,C
Carmenita Road to Leffingwell Road	25,412	18,262	139	277	487	19,165	1,622	22	89	43	1,777	4,024	68	271	107	4,470	A,B,C
Leffingwell Road to Bloomfield Avenue	56,725	41,890	202	445	1,118	43,655	2,519	23	95	67	2,704	9,605	99	406	256	10,367	A,B,C
<b>Florence Avenue</b>																	
Telegraph Road to Carmenita Road	37,968	27,276	164	321	728	28,489	3,003	23	127	80	3,233	5,810	60	221	155	6,246	A,B,C
Carmenita Road to Bloomfield Avenue	36,697	25,561	185	309	682	26,738	3,211	32	181	86	3,509	5,920	87	285	158	6,450	A,B,C
Bloomfield Avenue to Pioneer Boulevard	34,045	23,599	169	396	630	24,794	2,612	20	95	70	2,797	5,881	88	328	157	6,455	A,B,C
Pioneer Boulevard to Fairford Avenue	45,181	32,410	273	618	865	34,167	2,590	27	125	69	2,812	7,372	140	493	197	8,202	A,B,C
<b>Greenleaf Avenue</b>																	
Mulberry Drive to Los Nietos Road	4,816	1,201	22	14	32	1,269	3,290	13	73	88	3,463	75	5	2	2	84	A,B,C
Los Nietos Road to Telegraph Road	11,420	6,542	107	199	175	7,023	3,675	7	22	98	3,802	553	11	17	15	595	A,B,C
<b>Lakeland Road</b>																	
Carmenita Road to Laurel Avenue	4,883	1,922	109	138	51	2,220	2,079	7	34	56	2,176	460	7	8	12	487	A,B,C
Laurel Avenue to Painter Avenue	5,691	4,089	125	165	109	4,488	691	5	16	18	730	445	7	8	12	472	A,B,C
Painter Avenue to Shoemaker Avenue	3,105	1,014	3	3	27	1,047	1,716	3	15	46	1,780	269	1	2	7	279	A,B,C
Shoemaker Avenue to Bloomfield Avenue	8,207	6,783	95	70	181	7,129	250	3	5	7	264	765	14	14	20	814	A,B,C
Bloomfield Avenue to Norwalk Boulevard	3,402	2,970	11	20	79	3,080	11	0	0	0	11	300	2	2	8	311	A,B,C
Norwalk Boulevard to Pioneer Boulevard	6,895	4,817	69	143	129	5,159	1,258	3	8	34	1,303	402	8	13	11	433	A,B,C

<b>Mulberry Drive</b>																	
Painter Avenue to Santa Fe Springs Road	41,163	33,894	201	340	905	35,340	690	5	19	18	732	4,824	43	95	129	5,091	A,B,C
<b>Norwalk Boulevard</b>																	
Mines Street to Washington Boulevard	25,441	17,121	198	609	457	18,385	3,779	25	135	101	4,040	2,699	44	200	72	3,015	A,B,C
Washington Boulevard to Slauson Avenue	37,243	28,154	436	1,211	752	30,552	1,423	21	104	38	1,586	4,447	112	427	119	5,105	A,B,C
Slauson Avenue to Los Nietos Road	37,714	27,060	310	797	722	28,890	3,374	24	110	90	3,599	4,679	92	330	125	5,226	A,B,C
Los Nietos Road to Telegraph Road	21,337	16,899	106	255	451	17,711	1,085	10	46	29	1,170	2,279	29	88	61	2,456	A,B,C
Telegraph Road to Florence Avenue	30,596	24,565	393	889	656	26,503	203	6	17	5	231	3,500	72	197	93	3,862	A,B,C
Florence Avenue to 4th Street	30,834	23,470	386	772	626	25,254	865	13	47	23	948	4,085	106	332	109	4,632	A,B,C
<b>Painter Avenue</b>																	
Mulberry Drive to Wallburg Street	24,903	19,861	170	311	530	20,872	478	9	32	13	531	3,251	42	119	87	3,499	A,B,C
<b>Pioneer Boulevard</b>																	
Saragosa Street to Washington Boulevard	23,111	15,801	26	33	422	16,283	3,481	19	96	93	3,689	3,030	8	21	81	3,139	A,B,C
Washington Boulevard to I-605 NB Ramp	23,217	16,373	55	57	437	16,923	2,646	4	14	71	2,735	3,397	22	48	91	3,559	A,B,C
I-605 NB Ramp to Slauson Avenue	29,237	21,101	77	140	563	21,881	2,381	14	80	64	2,539	4,493	38	166	120	4,817	A,B,C
Slauson Avenue to Orr and Day Road	13,984	9,218	117	190	246	9,772	2,832	19	102	76	3,029	1,109	22	23	30	1,183	A,B,C
Orr and Day Road to Arlee Avenue	4,923	2,550	6	15	68	2,638	1,875	10	50	50	1,985	288	1	2	8	299	A,B,C
Arlee Avenue to Florence Avenue	14,503	10,616	195	358	283	11,453	1,208	8	28	32	1,277	1,498	61	174	40	1,773	A,B,C
Florence Avenue to Lakeland Road	22,432	18,791	215	411	502	19,919	68	2	5	2	76	2,256	37	83	60	2,436	A,B,C

<b>Santa Fe Springs Road</b>																	
Mulberry Drive to Sorensen Avenue	14,729	10,012	59	107	267	10,445	2,782	9	49	74	2,914	1,302	14	20	35	1,370	A,B,C
Sorensen Avenue to Telegraph Road	21,847	13,392	228	347	357	14,324	5,188	17	70	138	5,414	1,886	56	116	50	2,108	A,B,C
<b>Shoemaker Avenue</b>																	
Telegraph Rd to Florence Avenue	8,964	4,934	79	177	132	5,322	3,082	13	58	82	3,235	376	8	13	10	407	A,B,C
Florence Avenue to Meyer Road	12,297	10,365	130	245	277	11,016	52	0	1	1	55	1,151	17	27	31	1,226	A,B,C
Meyer Road to Sunshine Avenue	6,434	2,323	5	60	62	2,450	3,363	18	89	90	3,559	386	2	27	10	425	A,B,C
Sunshine Avenue to Imperial Highway	8,504	3,894	9	119	104	4,125	3,331	23	141	89	3,584	720	3	53	19	795	A,B,C
Rosecrans Avenue to Rail Crossing	12,706	8,027	140	350	214	8,732	2,242	19	117	60	2,437	1,271	49	183	34	1,537	A,B,C
Rail Crossing to Alondra Boulevard	16,626	11,455	195	462	306	12,418	2,177	18	95	58	2,348	1,620	47	151	43	1,861	A,B,C
<b>Slauson Avenue</b>																	
Santa Fe Springs Road to Sorensen Avenue	36,946	29,554	209	343	789	30,895	1,428	11	45	38	1,522	4,248	48	118	113	4,528	A,B,C
Sorensen Avenue to Dice Road	33,784	27,407	156	260	732	28,555	935	10	48	25	1,018	3,957	40	108	106	4,211	A,B,C
Dice Road to Norwalk Boulevard	41,503	32,408	456	999	865	34,728	957	18	69	26	1,069	4,949	139	486	132	5,706	A,B,C
Norwalk Boulevard to Pioneer Boulevard	35,907	26,868	285	585	717	28,455	2,038	25	141	54	2,259	4,573	106	392	122	5,193	A,B,C
Pioneer Boulevard to Parsons Boulevard	56,869	43,713	335	536	1,167	45,752	1,861	20	97	50	2,028	8,267	131	471	221	9,090	A,B,C

<b>Telegraph Road</b>																	
Leffingwell Road to Valley View Avenue	35,320	28,089	180	296	750	29,314	1,519	8	22	41	1,590	4,190	39	75	112	4,415	A,B,C
Valley View Avenue to Mills Avenue/Florence Avenue	51,469	41,343	302	449	1,104	43,198	1,614	11	41	43	1,710	6,207	67	121	166	6,561	A,B,C
Mills Avenue/Florence Avenue to Carmenita Road	43,922	34,754	233	383	928	36,297	3,166	16	62	85	3,329	4,056	46	86	108	4,296	A,B,C
Carmenita Road to Bloomfield Avenue	35,040	28,324	188	383	756	29,651	2,026	9	28	54	2,117	3,095	31	63	83	3,272	A,B,C
Bloomfield Avenue to Orr and Day Road	43,226	34,497	463	1,191	921	37,071	2,134	15	73	57	2,279	3,514	65	202	94	3,875	A,B,C
Orr and Day Road to True Avenue	68,037	53,526	728	1,769	1,429	57,452	3,064	23	117	82	3,285	6,503	146	476	174	7,299	A,B,C
<b>Washington Boulevard</b>																	
Calobar Avenue/Rivera Road to Sorensen Avenue	30,926	23,408	104	166	625	24,303	2,086	10	39	56	2,191	4,176	43	102	111	4,432	A,B,C
Sorensen Avenue to Norwalk Boulevard	38,593	30,222	153	274	807	31,455	694	6	12	19	731	6,068	53	124	162	6,407	A,B,C
Norwalk Boulevard to Pioneer Boulevard	54,341	40,790	269	388	1,089	42,535	3,566	27	147	95	3,835	7,515	87	168	201	7,971	A,B,C
Pioneer Boulevard to San Gabriel River	59,204	45,733	292	402	1,221	47,648	2,830	22	99	76	3,027	8,063	86	165	215	8,530	A,B,C
Table Notes:																	
A - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary along different individual segments within the modeled segment start and end point.																	
B - Day, evening, and nighttime volumes are for the entire time period (e.g., there are 14,954 autos on Bloomfield Avenue b/n Telegraph and Florence during the 12-hour daytime period).																	
C - Traffic volume provided by Fehr and Peers (Fehr and Peers, 2021a and 2021b). Traffic volumes may be estimated based on one or more road segments including or adjacent to the listed segment. Day, evening, and night volumes estimated using day, evening, and night traffic volume percentages provided by Fehr and Peers for the listed roadway segment under the 2040 Future Baseline scenario (Fehr and Peers, 2021a).																	



**SHEET 9: 2040 General Plan Traffic Noise Contours**

Road / Segment	Estimated CNEL 50 Feet from Road Center Line <sup>(A)</sup>	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 CNEL	70 CNEL	65 CNEL	60 CNEL
<b>Bloomfield Avenue</b>					
Telegraph Road to Florence Avenue	69.5	14	45	141	446
Florence Avenue to Imperial Highway	68.7	12	37	117	371
<b>Carmenita Road</b>					
Painter Avenue to Telegraph Road	67.5	9	28	89	281
Telegraph Road to Florence Avenue	67.3	8	27	85	269
Florence Avenue to Meyer Road	67.9	10	31	97	308
Meyer Road to Leffingwell Road	68.4	11	35	109	346
Leffingwell Road to Imperial Highway	71.9	24	77	245	774
Imperial Highway to Rosecrans Avenue	72.4	27	87	275	869
Rosecrans Avenue to I-5 NB Ramps	72.3	27	85	269	849
I-5 NB Ramp to Firestone Boulevard	72.2	26	83	262	830
Firestone Boulevard to Alondra Boulevard	71.7	23	74	234	740
<b>Imperial Highway</b>					
Valley View Avenue to Carmenita Road	70.7	19	59	186	587
Carmenita Road to Leffingwell Road	70.3	17	54	169	536
Leffingwell Road to Bloomfield Avenue	73.4	35	109	346	1,094

<b>Florence Avenue</b>					
Telegraph Road to Carmenita Road	70.5	18	56	177	561
Carmenita Road to Bloomfield Avenue	72.9	31	97	308	975
Bloomfield Avenue to Pioneer Boulevard	72.0	25	79	251	792
Pioneer Boulevard to Fairford Avenue	73.1	32	102	323	1,021
<b>Greenleaf Avenue</b>					
Mulberry Drive to Los Nietos Road	54.9	0	2	5	15
Los Nietos Road to Telegraph Road	62.1	3	8	26	81
<b>Lakeland Road</b>					
Carmenita Road to Laurel Avenue	60.3	2	5	17	54
Laurel Avenue to Painter Avenue	61.2	2	7	21	66
Painter Avenue to Shoemaker Avenue	57.2	1	3	8	26
Shoemaker Avenue to Bloomfield Avenue	63.1	3	10	32	102
Bloomfield Avenue to Norwalk Boulevard	58.6	1	4	11	36
Norwalk Boulevard to Pioneer Boulevard	60.2	2	5	17	52
<b>Mulberry Drive</b>					
Painter Avenue to Santa Fe Springs Road	70.4	17	55	173	548
<b>Norwalk Boulevard</b>					
Mines Street to Washington Boulevard	69.6	14	46	144	456
Washington Boulevard to Slauson Avenue	69.3	13	43	135	426
Slauson Avenue to Los Nietos Road	72.9	31	97	308	975
Los Nietos Road to Telegraph Road	69.2	13	42	132	416
Telegraph Road to Florence Avenue	71.6	23	72	229	723
Florence Avenue to 4th Street	71.2	21	66	208	659

<b>Painter Avenue</b>					
Mulberry Drive to Wallburg Street	67.7	9	29	93	294
<b>Pioneer Boulevard</b>					
Saragosa Street to Washington Boulevard	66.0	6	20	63	199
Washington Boulevard to I-605 NB Ramp	66.3	7	21	67	213
I-605 NB Ramp to Slauson Avenue	68.4	11	35	109	346
Slauson Avenue to Orr and Day Road	63.0	3	10	32	100
Orr and Day Road to Arlee Avenue	56.1	1	2	6	20
Arlee Avenue to Florence Avenue	67.8	10	30	95	301
Florence Avenue to Lakeland Road	68.2	10	33	104	330
<b>Santa Fe Springs Road</b>					
Mulberry Drive to Sorensen Avenue	64.9	5	15	49	155
Sorensen Avenue to Telegraph Road	68.9	12	39	123	388
<b>Shoemaker Avenue</b>					
Telegraph Rd to Florence Avenue	62.9	3	10	31	97
Florence Avenue to Meyer Road	65.6	6	18	57	182
Meyer Road to Sunshine Avenue	61.4	2	7	22	69
Sunshine Avenue to Imperial Highway	63.7	4	12	37	117
Rosecrans Avenue to UPRR Rail Crossing	66.0	6	20	63	199
UPRR Rail Crossing to Alondra Boulevard	69.0	13	40	126	397

<b>Slauson Avenue</b>					
Santa Fe Springs Road to Sorensen Avenue	70.4	17	55	173	548
Sorensen Avenue to Dice Road	69.8	15	48	151	477
Dice Road to Norwalk Boulevard	72.2	26	83	262	830
Norwalk Boulevard to Pioneer Boulevard	71.5	22	71	223	706
Pioneer Boulevard to Parsons Boulevard	73.4	35	109	346	1,094
<b>Telegraph Road</b>					
Leffingwell Road to Valley View Avenue	71.2	21	66	208	659
Valley View Avenue to Mills Avenue/Florence Avenue	72.9	31	97	308	975
Mills Avenue/Florence Avenue to Carmenita Road	70.2	17	52	166	524
Carmenita Road to Bloomfield Avenue	69.0	13	40	126	397
Bloomfield Avenue to Orr and Day Road	70.9	19	62	195	615
Orr and Day Road to True Avenue	73.2	33	104	330	1,045
<b>Washington Boulevard</b>					
Calobar Avenue/Rivera Road to Sorensen Avenue	69.8	15	48	151	477
Sorensen Avenue to Norwalk Boulevard	71.0	20	63	199	629
Norwalk Boulevard to Pioneer Boulevard	72.1	26	81	256	811
Pioneer Boulevard to San Gabriel River	72.4	27	87	275	869
<b>Interstate 5</b>					
Valley View Avenue to Rosecrans Avenue (Without Barrier)	86.8	2,270	7,179	22,703	71,795
Valley View Avenue to Rosecrans Avenue (With Barrier)	75.8	180	570	1,803	5,703
Rail track to San Gabriel River (Without Barrier)	86.8	2,270	7,179	22,703	71,795
Rail track to San Gabriel River (With Barrier)	76.4	207	655	2,071	6,548

<b>Interstate 605</b>					
I-5 to City Limit (Without Barrier)	87.9	2,925	9,249	29,248	92,489
I-5 to City Limit (With Barrier)	78.2	313	991	3,134	9,910
Table Notes:					
A - CNEL is estimated 50 feet from the center of the nearest travel direction except for I-5 and I-605, which is estimated at 150 feet from the center of the highway right-of-way.					

**SHEET 10: 2040 General Plan Road Traffic Volume Information (Percentages)**

2040 GENERAL PLAN TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Bloomfield Avenue</b>																	
Telegraph Road to Florence Avenue	19,077	85.88%	2.35%	11.77%	94%	1%	2%	3%	91%	2%	5%	2%	92%	2%	4%	2%	A,B,C,D
Florence Avenue to Imperial Highway	23,114	84.19%	4.09%	11.72%	94%	1%	2%	3%	93%	1%	3%	2%	91%	2%	4%	2%	A,B,C,D
<b>Carmenita Road</b>																	
Painter Avenue to Telegraph Road	24,536	79.43%	7.06%	13.51%	95%	1%	2%	3%	94%	1%	3%	3%	92%	1%	4%	2%	A,B,C,D
Telegraph Road to Florence Avenue	22,370	77.31%	7.99%	14.70%	95%	1%	2%	3%	94%	1%	3%	3%	92%	1%	4%	2%	A,B,C,D
Florence Avenue to Meyer Road	22,085	76.85%	8.04%	15.12%	94%	1%	2%	3%	92%	1%	4%	2%	89%	2%	6%	2%	A,B,C,D
Meyer Road to Leffingwell Road	26,773	77.53%	7.96%	14.50%	93%	2%	2%	2%	93%	1%	4%	2%	90%	2%	5%	2%	A,B,C,D
Leffingwell Road to Imperial Highway	37,622	77.20%	8.40%	14.40%	94%	1%	2%	3%	94%	1%	3%	2%	91%	2%	5%	2%	A,B,C,D
Imperial Highway to Rosecrans Avenue	34,233	75.96%	8.56%	15.48%	94%	1%	2%	3%	94%	1%	3%	2%	91%	2%	5%	2%	A,B,C,D
Rosecrans Avenue to I-5 NB Ramps	38,887	76.73%	8.47%	14.79%	91%	2%	4%	2%	90%	1%	7%	2%	87%	2%	9%	2%	A,B,C,D
I-5 NB Ramp to Firestone Boulevard	44,780	76.56%	8.48%	14.96%	92%	2%	4%	2%	89%	1%	7%	2%	86%	3%	10%	2%	A,B,C,D
Firestone Boulevard to Alondra Boulevard	33,646	76.59%	8.06%	15.35%	93%	1%	3%	2%	89%	1%	8%	2%	84%	3%	11%	2%	A,B,C,D
<b>Imperial Highway</b>																	
Valley View Avenue to Carmenita Road	31,354	74.82%	9.04%	16.14%	95%	1%	2%	3%	94%	1%	3%	3%	91%	1%	6%	2%	A,B,C,D
Carmenita Road to Leffingwell Road	26,456	72.25%	10.15%	17.60%	95%	1%	2%	3%	94%	1%	3%	3%	90%	2%	6%	2%	A,B,C,D
Leffingwell Road to Bloomfield Avenue	60,905	72.27%	10.24%	17.48%	96%	0%	1%	3%	95%	0%	2%	3%	93%	1%	4%	2%	A,B,C,D

**SHEET 10: 2040 General Plan Road Traffic Volume Information (Percentages)**

2040 GENERAL PLAN TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Florence Avenue</b>																	
Telegraph Road to Carmenita Road	38,762	73.16%	9.90%	16.94%	96%	1%	1%	3%	95%	0%	2%	3%	93%	1%	3%	2%	A,B,C,D
Carmenita Road to Bloomfield Avenue	37,226	71.52%	10.35%	18.13%	96%	1%	1%	3%	94%	1%	3%	3%	92%	1%	4%	2%	A,B,C,D
Bloomfield Avenue to Pioneer Boulevard	35,733	69.66%	11.24%	19.10%	95%	1%	2%	3%	94%	1%	3%	3%	91%	1%	5%	2%	A,B,C,D
Pioneer Boulevard to Fairford Avenue	48,531	72.02%	10.21%	17.78%	95%	1%	2%	3%	94%	1%	3%	2%	90%	2%	6%	2%	A,B,C,D
<b>Greenleaf Avenue</b>																	
Mulberry Drive to Los Nietos Road	1,663	91.86%	1.92%	6.22%	90%	2%	6%	2%	92%	4%	2%	2%	91%	4%	2%	2%	A,B,C,D
Los Nietos Road to Telegraph Road	8,669	87.79%	4.17%	8.04%	91%	2%	4%	2%	92%	1%	5%	2%	90%	3%	5%	2%	A,B,C,D
<b>Lakeland Road</b>																	
Carmenita Road to Laurel Avenue	2,835	72.80%	9.46%	17.74%	86%	5%	6%	2%	92%	1%	4%	2%	95%	1%	2%	3%	A,B,C,D
Laurel Avenue to Painter Avenue	5,018	86.02%	4.15%	9.83%	91%	3%	4%	2%	97%	0%	1%	3%	94%	1%	2%	3%	A,B,C,D
Painter Avenue to Shoemaker Avenue	1,471	65.92%	13.74%	20.34%	97%	0%	0%	3%	97%	0%	1%	3%	96%	0%	1%	3%	A,B,C,D
Shoemaker Avenue to Bloomfield Avenue	8,503	85.34%	4.77%	9.90%	96%	1%	1%	3%	95%	1%	2%	3%	94%	1%	2%	3%	A,B,C,D
Bloomfield Avenue to Norwalk Boulevard	3,744	91.23%	0.27%	8.50%	97%	0%	0%	3%	97%	0%	0%	3%	96%	0%	1%	3%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	6,299	92.11%	0.09%	7.80%	94%	1%	3%	3%	97%	0%	0%	3%	94%	1%	2%	3%	A,B,C,D

**SHEET 10: 2040 General Plan Road Traffic Volume Information (Percentages)**

2040 GENERAL PLAN TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Mulberry Drive</b>																	
Painter Avenue to Santa Fe Springs Road	43,933	81.97%	5.77%	12.26%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
<b>Norwalk Boulevard</b>																	
Mines Street to Washington Boulevard	23,097	80.10%	6.50%	13.40%	93%	1%	4%	2%	92%	1%	5%	2%	89%	2%	7%	2%	A,B,C,D
Washington Boulevard to Slauson Avenue	38,958	79.16%	7.37%	13.47%	92%	1%	4%	2%	92%	1%	5%	2%	87%	2%	8%	2%	A,B,C,D
Slauson Avenue to Los Nietos Road	38,028	77.73%	8.16%	14.11%	94%	1%	3%	2%	93%	1%	3%	2%	90%	2%	6%	2%	A,B,C,D
Los Nietos Road to Telegraph Road	22,213	82.97%	5.65%	11.38%	95%	1%	1%	3%	96%	0%	2%	3%	93%	1%	4%	2%	A,B,C,D
Telegraph Road to Florence Avenue	33,540	81.04%	7.09%	11.87%	93%	1%	3%	2%	93%	1%	4%	2%	91%	2%	5%	2%	A,B,C,D
Florence Avenue to 4th Street	34,217	77.30%	8.54%	14.16%	94%	1%	3%	2%	91%	1%	5%	2%	89%	2%	7%	2%	A,B,C,D
<b>Painter Avenue</b>																	
Mulberry Drive to Wallburg Street	27,211	78.62%	7.82%	13.56%	95%	1%	2%	3%	95%	0%	2%	3%	93%	1%	3%	2%	A,B,C,D



**SHEET 10: 2040 General Plan Road Traffic Volume Information (Percentages)**

2040 GENERAL PLAN TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Pioneer Boulevard</b>																	
Saragosa Street to Washington Boulevard	21,812	76.40%	8.84%	14.76%	97%	0%	0%	3%	97%	0%	0%	3%	97%	0%	1%	3%	A,B,C,D
Washington Boulevard to I-605 NB Ramp	22,805	75.72%	8.26%	16.02%	97%	0%	0%	3%	97%	0%	1%	3%	96%	1%	1%	3%	A,B,C,D
I-605 NB Ramp to Slauson Avenue	29,971	74.12%	9.29%	16.59%	96%	0%	1%	3%	96%	0%	1%	3%	93%	1%	3%	2%	A,B,C,D
Slauson Avenue to Orr and Day Road	11,675	88.23%	0.89%	10.88%	94%	1%	2%	3%	92%	2%	3%	2%	94%	2%	2%	3%	A,B,C,D
Orr and Day Road to Arlee Avenue	3,345	90.15%	0.13%	9.72%	96%	0%	1%	3%	97%	0%	0%	3%	96%	0%	1%	3%	A,B,C,D
Arlee Avenue to Florence Avenue	15,052	83.20%	4.44%	12.36%	93%	2%	3%	2%	89%	2%	7%	2%	85%	3%	10%	2%	A,B,C,D
Florence Avenue to Lakeland Road	25,334	86.01%	3.80%	10.19%	94%	1%	2%	3%	95%	1%	2%	3%	93%	2%	3%	2%	A,B,C,D
<b>Santa Fe Springs Road</b>																	
Mulberry Drive to Sorensen Avenue	12,981	84.73%	4.33%	10.94%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	1%	3%	A,B,C,D
Sorensen Avenue to Telegraph Road	17,772	83.37%	4.38%	12.25%	94%	1%	2%	3%	92%	2%	4%	2%	90%	2%	5%	2%	A,B,C,D

**SHEET 10: 2040 General Plan Road Traffic Volume Information (Percentages)**

2040 GENERAL PLAN TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Shoemaker Avenue</b>																	
Telegraph Rd to Florence Ave	6,538	89.79%	1.81%	8.40%	90%	2%	6%	2%	96%	0%	1%	3%	89%	3%	6%	2%	A,B,C,D
Florence Avenue to Meyer Road	13,824	85.83%	4.13%	10.05%	93%	1%	3%	2%	96%	0%	1%	3%	93%	2%	3%	2%	A,B,C,D
Meyer Road to Sunshine Avenue	3,616	79.89%	6.26%	13.85%	95%	0%	2%	3%	92%	0%	5%	2%	90%	1%	7%	2%	A,B,C,D
Sunshine Avenue to Imperial Highway	5,708	76.86%	7.93%	15.21%	94%	0%	3%	3%	92%	0%	5%	2%	90%	1%	7%	2%	A,B,C,D
Rosecrans Avenue to UPRR Rail Crossing	11,859	80.39%	5.83%	13.78%	92%	2%	4%	2%	86%	2%	10%	2%	83%	3%	12%	2%	A,B,C,D
UPRR Rail Crossing to Alondra Boulevard	15,640	80.96%	6.68%	12.36%	92%	2%	4%	2%	90%	1%	6%	2%	88%	2%	7%	2%	A,B,C,D
<b>Slauson Avenue</b>																	
Santa Fe Springs Road to Sorensen Avenue	38,796	81.39%	6.26%	12.35%	95%	1%	1%	3%	95%	0%	2%	3%	94%	1%	3%	3%	A,B,C,D
Sorensen Avenue to Dice Road	35,902	79.87%	7.96%	12.17%	96%	1%	1%	3%	96%	0%	2%	3%	94%	1%	3%	3%	A,B,C,D
Dice Road to Norwalk Boulevard	44,242	78.63%	8.09%	13.29%	93%	1%	3%	2%	91%	1%	6%	2%	87%	2%	8%	2%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	36,821	76.68%	8.78%	14.55%	94%	1%	2%	3%	92%	1%	5%	2%	88%	2%	7%	2%	A,B,C,D
Pioneer Boulevard to Parsons Boulevard	61,342	75.04%	9.60%	15.36%	95%	1%	1%	3%	94%	1%	3%	3%	91%	1%	5%	2%	A,B,C,D

**SHEET 10: 2040 General Plan Road Traffic Volume Information (Percentages)**

2040 GENERAL PLAN TRAFFIC VOLUME PERCENTAGE OF ADT																	
Road / Segment	ADT	TIME OF DAY SPLIT			DAY FLEET MIX (7 AM to 7 PM)				EVENING FLEET MIX (7 PM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Eve	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
<b>Telegraph Road</b>																	
Leffingwell Road to Valley View Avenue	37,151	80.13%	7.19%	12.68%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
Valley View Avenue to Mills Avenue/Florence Avenue	55,360	80.02%	7.28%	12.71%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
Mills Avenue/Florence Avenue to Carmenita Road	44,997	83.66%	6.15%	10.18%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
Carmenita Road to Bloomfield Avenue	35,626	84.17%	6.39%	9.44%	95%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
Bloomfield Avenue to Orr and Day Road	44,541	85.06%	5.88%	9.06%	93%	1%	3%	2%	92%	1%	5%	2%	91%	2%	5%	2%	A,B,C,D
Orr and Day Road to True Avenue	69,624	83.23%	6.14%	10.63%	93%	1%	3%	2%	92%	1%	5%	2%	89%	2%	7%	2%	A,B,C,D
<b>Washington Boulevard</b>																	
Calobar Avenue/Rivera Road to Sorensen Avenue	32,210	74.93%	11.00%	14.07%	96%	0%	1%	3%	96%	0%	1%	3%	94%	1%	2%	3%	A,B,C,D
Sorensen Avenue to Norwalk Boulevard	42,484	74.01%	10.42%	15.57%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D
Norwalk Boulevard to Pioneer Boulevard	56,277	75.51%	9.91%	14.58%	96%	1%	1%	3%	96%	0%	1%	3%	94%	1%	2%	3%	A,B,C,D
Pioneer Boulevard to San Gabriel River	62,613	76.84%	9.10%	14.06%	96%	1%	1%	3%	96%	0%	1%	3%	95%	1%	2%	3%	A,B,C,D

**SHEET 11: 2040 General Plan Road Traffic Volume Information (Volumes)**

FUTURE 2040 GENERAL PLAN TRAFFIC VOLUMES																	
Road / Segment	ADT	DAY (7 AM to 7 PM)					EVENING (7 PM to 10 PM)					NIGHT (10 PM to 7 AM)					NOTES
		AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	
<b>Bloomfield Avenue</b>																	
Telegraph Road to Florence Avenue	19,077	15,456	187	329	413	16,384	408	9	21	11	448	2,067	41	81	55	2,245	A,B,C
Florence Avenue to Imperial Highway	23,114	18,361	229	378	490	19,459	884	10	28	24	946	2,476	56	110	66	2,709	A,B,C
<b>Carmenita Road</b>																	
Painter Avenue to Telegraph Road	24,536	18,435	186	376	492	19,490	1,630	12	47	44	1,733	3,052	49	131	81	3,314	A,B,C
Telegraph Road to Florence Avenue	22,370	16,456	139	260	439	17,295	1,682	13	48	45	1,787	3,036	45	126	81	3,288	A,B,C
Florence Avenue to Meyer Road	22,085	15,972	200	373	426	16,971	1,634	21	76	44	1,775	2,980	74	206	80	3,339	A,B,C
Meyer Road to Leffingwell Road	26,773	19,408	331	500	518	20,758	1,977	24	78	53	2,132	3,506	81	202	94	3,883	A,B,C
Leffingwell Road to Imperial Highway	37,622	27,376	360	578	731	29,045	2,957	26	98	79	3,160	4,946	91	248	132	5,417	A,B,C
Imperial Highway to Rosecrans Avenue	34,233	24,552	275	522	655	26,004	2,741	23	93	73	2,930	4,818	95	257	129	5,298	A,B,C
Rosecrans Avenue to I-5 NB Ramps	38,887	27,250	533	1,330	727	29,840	2,953	38	225	79	3,295	4,988	137	494	133	5,752	A,B,C
I-5 NB Ramp to Firestone Boulevard	44,780	31,394	575	1,475	838	34,282	3,378	47	282	90	3,797	5,730	169	649	153	6,701	A,B,C
Firestone Boulevard to Alondra Boulevard	33,646	23,882	352	897	638	25,769	2,404	36	209	64	2,713	4,334	141	574	116	5,164	A,B,C

<b>Imperial Highway</b>																	
Valley View Avenue to Carmenita Road	31,354	22,260	215	390	594	23,460	2,661	18	84	71	2,834	4,586	73	280	122	5,061	A,B,C
Carmenita Road to Leffingwell Road	26,456	18,184	148	298	485	19,115	2,519	16	83	67	2,685	4,192	72	280	112	4,655	A,B,C
Leffingwell Road to Bloomfield Avenue	60,905	42,244	205	442	1,128	44,019	5,937	23	120	158	6,239	9,876	101	407	264	10,648	A,B,C
<b>Florence Avenue</b>																	
Telegraph Road to Carmenita Road	38,762	27,154	163	314	725	28,357	3,648	16	78	97	3,839	6,124	59	219	163	6,566	A,B,C
Carmenita Road to Bloomfield Avenue	37,226	25,460	179	304	680	26,623	3,632	23	100	97	3,852	6,212	87	286	166	6,751	A,B,C
Bloomfield Avenue to Pioneer Boulevard	35,733	23,703	167	389	633	24,892	3,776	24	116	101	4,017	6,238	89	330	167	6,824	A,B,C
Pioneer Boulevard to Fairford Avenue	48,531	33,205	259	599	886	34,950	4,636	34	160	124	4,953	7,792	138	490	208	8,628	A,B,C
<b>Greenleaf Avenue</b>																	
Mulberry Drive to Los Nietos Road	1,663	1,369	36	87	37	1,528	29	1	1	1	32	94	5	2	3	103	A,B,C
Los Nietos Road to Telegraph Road	8,669	6,952	142	331	186	7,610	332	2	18	9	361	629	17	34	17	697	A,B,C
<b>Lakeland Road</b>																	
Carmenita Road to Laurel Avenue	2,835	1,775	108	134	47	2,064	247	3	11	7	268	475	7	8	13	503	A,B,C
Laurel Avenue to Painter Avenue	5,018	3,928	124	160	105	4,317	201	0	1	5	208	466	7	8	12	493	A,B,C
Painter Avenue to Shoemaker Avenue	1,471	939	3	3	25	970	196	0	1	5	202	288	1	2	8	299	A,B,C
Shoemaker Avenue to Bloomfield Avenue	8,503	6,932	80	59	185	7,256	385	4	6	10	405	795	13	13	21	842	A,B,C
Bloomfield Avenue to Norwalk Boulevard	3,744	3,303	10	14	88	3,415	10	0	0	0	10	307	1	2	8	318	A,B,C
Norwalk Boulevard to Pioneer Boulevard	6,299	5,446	64	147	145	5,802	6	0	0	0	6	463	6	10	12	491	A,B,C

<b>Mulberry Drive</b>																	
Painter Avenue to Santa Fe Springs Road	43,933	34,452	214	426	920	36,012	2,427	10	33	65	2,534	5,103	45	103	136	5,387	A,B,C
<b>Norwalk Boulevard</b>																	
Mines Street to Washington Boulevard	23,097	17,165	212	665	458	18,501	1,385	10	68	37	1,500	2,769	47	206	74	3,096	A,B,C
Washington Boulevard to Slauson Avenue	38,958	28,421	433	1,225	759	30,837	2,629	28	146	70	2,873	4,586	110	430	122	5,248	A,B,C
Slauson Avenue to Los Nietos Road	38,028	27,680	316	823	739	29,558	2,895	23	107	77	3,102	4,810	93	336	128	5,367	A,B,C
Los Nietos Road to Telegraph Road	22,213	17,581	106	275	469	18,431	1,198	5	19	32	1,254	2,342	30	93	63	2,528	A,B,C
Telegraph Road to Florence Avenue	33,540	25,335	346	824	676	27,181	2,202	20	97	59	2,378	3,617	71	197	97	3,981	A,B,C
Florence Avenue to 4th Street	34,217	24,734	331	724	660	26,450	2,671	30	148	71	2,921	4,304	99	328	115	4,846	A,B,C
<b>Painter Avenue</b>																	
Mulberry Drive to Wallburg Street	27,211	20,332	169	350	543	21,393	2,021	10	42	54	2,127	3,434	42	122	92	3,690	A,B,C
<b>Pioneer Boulevard</b>																	
Saragosa Street to Washington Boulevard	21,812	16,170	26	37	432	16,665	1,869	2	6	50	1,928	3,107	8	21	83	3,220	A,B,C
Washington Boulevard to I-605 NB Ramp	22,805	16,704	56	61	446	17,267	1,820	4	12	49	1,885	3,489	23	48	93	3,653	A,B,C
I-605 NB Ramp to Slauson Avenue	29,971	21,418	78	146	572	22,214	2,666	7	40	71	2,784	4,646	39	165	124	4,974	A,B,C
Slauson Avenue to Orr and Day Road	11,675	9,700	121	221	259	10,301	96	2	3	3	104	1,195	19	25	32	1,270	A,B,C
Orr and Day Road to Arlee Avenue	3,345	2,899	9	29	77	3,016	4	0	0	0	4	312	1	4	8	325	A,B,C
Arlee Avenue to Florence Avenue	15,052	11,649	202	361	311	12,524	594	12	46	16	668	1,578	63	178	42	1,860	A,B,C
Florence Avenue to Lakeland Road	25,334	20,521	245	476	548	21,790	916	5	16	24	961	2,389	40	88	64	2,582	A,B,C

<b>Santa Fe Springs Road</b>																	
Mulberry Drive to Sorensen Avenue	12,981	10,553	56	108	282	10,999	542	3	3	14	563	1,350	14	20	36	1,420	A,B,C
Sorensen Avenue to Telegraph Road	17,772	13,882	214	350	371	14,817	714	12	33	19	778	1,956	54	115	52	2,178	A,B,C
<b>Shoemaker Avenue</b>																	
Telegraph Rd to Florence Avenue	6,538	5,285	120	326	141	5,871	114	0	1	3	118	489	16	30	13	549	A,B,C
Florence Avenue to Meyer Road	13,824	11,032	163	376	294	11,865	545	2	8	15	570	1,286	24	45	34	1,389	A,B,C
Meyer Road to Sunshine Avenue	3,616	2,733	14	69	73	2,889	209	0	11	6	226	449	6	34	12	501	A,B,C
Sunshine Avenue to Imperial Highway	5,708	4,142	17	117	111	4,387	418	1	22	11	453	780	7	60	21	868	A,B,C
Rosecrans Avenue to UPRR Rail Crossing	11,859	8,795	154	350	235	9,533	596	12	67	16	691	1,357	52	189	36	1,634	A,B,C
UPRR Rail Crossing to Alondra Boulevard	15,640	11,684	201	465	312	12,662	945	12	62	25	1,045	1,698	45	145	45	1,933	A,B,C
<b>Slauson Avenue</b>																	
Santa Fe Springs Road to Sorensen Avenue	38,796	30,135	221	416	804	31,576	2,312	11	45	62	2,429	4,496	50	125	120	4,791	A,B,C
Sorensen Avenue to Dice Road	35,902	27,530	157	253	735	28,674	2,730	10	44	73	2,858	4,111	41	110	110	4,370	A,B,C
Dice Road to Norwalk Boulevard	44,242	32,464	460	996	867	34,786	3,252	37	201	87	3,577	5,115	139	488	137	5,878	A,B,C
Norwalk Boulevard to Pioneer Boulevard	36,821	26,644	292	585	711	28,232	2,962	28	162	79	3,231	4,725	110	396	126	5,357	A,B,C
Pioneer Boulevard to Parsons Boulevard	61,342	43,943	351	568	1,173	46,034	5,545	32	163	148	5,887	8,577	135	480	229	9,421	A,B,C

<b>Telegraph Road</b>																	
Leffingwell Road to Valley View Avenue	37,151	28,491	193	324	761	29,768	2,563	9	30	68	2,671	4,469	42	82	119	4,712	A,B,C
Valley View Avenue to Mills Avenue/Florence Avenue	55,360	42,324	312	530	1,130	44,296	3,860	17	48	103	4,029	6,664	67	126	178	7,035	A,B,C
Mills Avenue/Florence Avenue to Carmenita Road	44,997	35,979	242	464	960	37,646	2,654	10	33	71	2,769	4,330	46	90	116	4,582	A,B,C
Carmenita Road to Bloomfield Avenue	35,626	28,624	194	404	764	29,985	2,180	8	32	58	2,277	3,179	32	68	85	3,364	A,B,C
Bloomfield Avenue to Orr and Day Road	44,541	35,302	449	1,194	942	37,887	2,418	19	119	65	2,620	3,662	66	207	98	4,033	A,B,C
Orr and Day Road to True Avenue	69,624	53,972	739	1,795	1,441	57,947	3,917	39	215	105	4,275	6,596	148	481	176	7,402	A,B,C
<b>Washington Boulevard</b>																	
Calobar Avenue/Rivera Road to Sorensen Avenue	32,210	23,261	98	155	621	24,134	3,414	10	29	91	3,544	4,272	42	103	114	4,532	A,B,C
Sorensen Avenue to Norwalk Boulevard	42,484	30,167	159	311	805	31,443	4,268	11	33	114	4,426	6,270	53	125	167	6,616	A,B,C
Norwalk Boulevard to Pioneer Boulevard	56,277	40,783	255	366	1,089	42,493	5,365	20	49	143	5,576	7,753	82	166	207	8,208	A,B,C
Pioneer Boulevard to San Gabriel River	62,613	46,219	278	381	1,234	48,112	5,485	19	46	146	5,697	8,337	81	163	223	8,804	A,B,C
Table Notes:																	
A - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary along different individual segments within the modeled segment start and end point.																	
B - Day, evening, and nighttime volumes are for the entire time period (e.g., there are 15,456 autos on Bloomfield Avenue b/n Telegraph and Florence during the 12-hour daytime period).																	
C - Traffic volume provided by Fehr and Peers (Fehr and Peers, 2021a and 2021b). Traffic volumes may be estimated based on one or more road segments including or adjacent to the listed segment. Day, evening, and night volumes estimated using day, evening, and night traffic volume percentages provided by Fehr and Peers for the listed roadway segment under the 2040 Future Baseline scenario (Fehr and Peers, 2021a).																	



**SHEET 12: EMFAC Vehicle Class Distributions**

<b>TNM 3.0/EMFAC2021 VEHICLE POPULATION INFORMATION (Unadjusted)</b>					
<b>TNM Vehicle Type</b>	<b>Vehicle Class (EMFAC2007)</b>	<b>2020 Vehicle Population</b>	<b>2020 Vehicle Population %</b>	<b>2040 Vehicle Population</b>	<b>2040 Vehicle Population %</b>
Auto	LDA	3,717,288	53.6%	3,344,805	44.2%
Auto	LDT1	336,658	4.9%	277,078	3.7%
Auto	LDT2	1,463,381	21.1%	2,019,781	26.7%
Auto	LHDT1	166,196	2.4%	243,051	3.2%
Auto	MDV	912,560	13.2%	1,200,085	15.9%
<b>Subtotal</b>		<b>6,596,084</b>	<b>95.2%</b>	<b>7,084,801</b>	<b>93.7%</b>
Medium Truck	LHDT2	37,399	0.5%	67,378	0.9%
Medium Truck	MHDT	75,488	1.1%	97,252	1.3%
Medium Truck	OBUS	6,620	0.1%	5,524	0.1%
Medium Truck	SBUS	4,246	0.1%	4,844	0.1%
<b>Subtotal</b>		<b>123,753</b>	<b>1.8%</b>	<b>174,999</b>	<b>2.3%</b>
Heavy Truck	HHDT	51,058	0.7%	84,674	1.1%
Heavy Truck	MH	22,378	0.3%	20,289	0.3%
Heavy Truck	UBUS	4,356	0.1%	5,450	0.1%
<b>Subtotal</b>		<b>77,792</b>	<b>1.1%</b>	<b>110,412</b>	<b>1.5%</b>
Motorcycle	MC	132,609	1.9%	190,132	2.5%
<b>Subtotal</b>		<b>132,609</b>	<b>1.9%</b>	<b>190,132</b>	<b>2.5%</b>
<b>TOTAL</b>		<b>6,930,239</b>	<b>100.0%</b>	<b>7,560,344</b>	<b>100.0%</b>
A) EMFAC2021 raw data file is available upon request.					

<b>TNM 3.0/EMFAC2021 VEHICLE POPULATION INFORMATION (Excluding MHDT and HHDT)</b>					
<b>TNM Vehicle Type</b>	<b>Vehicle Class (EMFAC2007)</b>	<b>2020 Vehicle Population</b>	<b>2020 Vehicle Population %</b>	<b>2040 Vehicle Population</b>	<b>2040 Vehicle Population %</b>
Auto	LDA	3,717,288	55.2453%	3,344,805	46.0%
Auto	LDT1	336,658	5.0033%	277,078	3.8%
Auto	LDT2	1,463,381	21.7484%	2,019,781	27.8%
Auto	LHDT1	166,196	2.4700%	243,051	3.3%
Auto	MDV	912,560	13.5622%	1,200,085	16.5%
<b>Subtotal</b>		<b>6,596,084</b>	<b>98.0292%</b>	<b>7,084,801</b>	<b>97.4%</b>
Medium Truck	LHDT2	0	0.0000%	0	0.0%
Medium Truck	MHDT	0	0.0000%	0	0.0%
Medium Truck	OBUS	0	0.0000%	0	0.0%
Medium Truck	SBUS	0	0.0000%	0	0.0%
<b>Subtotal</b>		<b>0</b>	<b>0.0000%</b>	<b>0</b>	<b>0.0%</b>
Heavy Truck	HHDT	0	0.0000%	0	0.0%
Heavy Truck	MH	0	0.0000%	0	0.0%
Heavy Truck	UBUS	0	0.0000%	0	0.0%
<b>Subtotal</b>		<b>0</b>	<b>0.0000%</b>	<b>0</b>	<b>0.0%</b>
Motorcycle	MC	132,609	1.9708%	190,132	2.6%
<b>Subtotal</b>		<b>132,609</b>	<b>1.9708%</b>	<b>190,132</b>	<b>2.6%</b>
<b>TOTAL</b>		<b>6,728,693</b>	<b>100.0%</b>	<b>7,274,933</b>	<b>100.0%</b>
A) EMFAC2021 raw data file is available upon request.					

**SHEET 13: Rail Noise Contours**

Road / Segment	Estimated CNEL 50 Feet from Rail Center Line	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 CNEL	70 CNEL	65 CNEL	60 CNEL
<b>2020 Existing Conditions</b>					
Freight Rail Line	74.0	40	126	397	1,256
<b>2040 Future Conditions</b>					
Freight Rail Line	77.0	79	251	792	2,506

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## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 1:15:56 PM

CASE:

Bloomfield\_EX20

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Receiver-1	1	1	---	69.7	0.0	---	---	Sound Level	
Receiver-2	2	1	---	68.6	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 1:31:34 PM

CASE:

Carmenita\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Painter to Telegraph	1	1	---	67.2	0.0	---	---	Sound Level	
Telegraph to Florence	2	1	---	67.0	0.0	---	---	Sound Level	
Florence to Meyer	3	1	---	67.7	0.0	---	---	Sound Level	
Meyer to Leffingwell	4	1	---	68.4	0.0	---	---	Sound Level	
Leffingwell to Imperial	5	1	---	71.8	0.0	---	---	Sound Level	
Imperial to Rosecrans	6	1	---	72.2	0.0	---	---	Sound Level	
Rosecrans to I-5 NB Ramp	7	1	---	71.9	0.0	---	---	Sound Level	
I-5 NB Ramp to Firestone	8	1	---	71.5	0.0	---	---	Sound Level	
Firestone to Alondra	9	1	---	69.8	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 1:45:11 PM

CASE:

Florence\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type of Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Telegraph to Carmenita	1	1	---	70.3	0.0	---	---	Sound Level	
Carmenita to Bloomfield	2	1	---	72.6	0.0	---	---	Sound Level	
Bloomfield to Pioneer	3	1	---	71.6	0.0	---	---	Sound Level	
Pioneer to Fairfield	4	1	---	72.5	0.0	---	---	Sound Level	

**REPORT:****Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 1:49:31 PM

CASE:

Greenleaf\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type of Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Mulberry to Telegraph	1	1	---	52.6	0.0	---	---	Sound Level	
Los Nietos to Telegraph	2	1	---	61.5	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 1:36:58 PM

CASE:

ImperialHwy\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type  of  Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA	dBA		dBA
ValleyView to Carmenita	1	1	---	70.7	0.0	---	---	Sound Level	
Carmenita to Leffingwell	2	1	---	69.9	0.0	---	---	Sound Level	
Leffingwell to Bloomfield	3	1	---	73.2	0.0	---	---	Sound Level	



## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 2:00:13 PM

CASE:

Lakeland\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						Type of Impact
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Carmenita to Laurel	1	1	---	60.8	0.0	---	---	Sound Level	
Laurel to Painter	2	1	---	61.3	0.0	---	---	Sound Level	
Painter to Shoemaker	3	1	---	57.3	0.0	---	---	Sound Level	
Shoemaker to Bloomfield	4	1	---	63.1	0.0	---	---	Sound Level	
Bloomfield to Norwalk	5	1	---	59.7	0.0	---	---	Sound Level	
Norwalk to Pioneer	6	1	---	60.0	0.0	---	---	Sound Level	

REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION	3.0.7.60002	REPORT DATE:	18 July 2021
CALCULATED WITH:	3.0.7.60002	CALCULATION DATE:	7/18/2021 2:03:36 PM
CASE:	Mulberry_20EX	ORGANIZATION:	MIG, Inc.
UNITS:	English	ANALYSIS BY:	CDugan
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Santa Fe Springs General Plan - 2020 Existing
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state	
PAVEMENT TYPE(S) USED:	Average	highway agency substantiates the use of a different	
		type with approval FHWA.	

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Painter to Santa Fe Springs	1	1	---	70.3	0.0	---	---	Sound Level	

## REPORT:

## Results: Sound Levels - No Barrier Objects

TNM VERSION 3.0.7.60002  
 CALCULATED WITH: 3.0.7.60002  
 CASE: Norwalk\_20EX  
 UNITS: English  
 DEFAULT GROUND TYPE: HardSoil  
 ATMOSPHERICS: 68°F, 50%  
 PAVEMENT TYPE(S) USED: Average

REPORT DATE: 18 July 2021  
 CALCULATION DATE: 7/18/2021 2:49:19 PM  
 ORGANIZATION: MIG, Inc.  
 ANALYSIS BY: CDugan  
 PROJECT/CONTRACT Santa Fe Springs General Plan - 2020 Existing  
 Average pavement type shall be used unless a state  
 highway agency substantiates the use of a different  
 type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Mines to Washington	1	1	---	69.1	0.0	---	---	Sound Level	
Washington to Slauson	2	1	---	68.7	0.0	---	---	Sound Level	
Slauson to Los Nietos	3	1	---	72.3	0.0	---	---	Sound Level	
Los Nietos to Telegraph	4	1	---	68.6	0.0	---	---	Sound Level	
Telegraph to Florence	5	1	---	71.4	0.0	---	---	Sound Level	
Florence to 4th	6	1	---	70.8	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 2:56:26 PM

CASE:

Painter\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
					Absolute		Relative		
				Calc.	Criterion	Calc.	Criterion		
				dBA	dBA	dBA	dBA		
Mulberry to Wallburg	1	1	---	67.5	0.0	---	---	Sound Level	

## REPORT:

## Results: Sound Levels - No Barrier Objects

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 3:30:13 PM

CASE:

Pioneer\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Saragosa to Washington	1	1	---	66.3	0.0	---	---	Sound Level	
Washington to I-605 NB Ramp	2	1	---	66.3	0.0	---	---	Sound Level	
I-605 NB Ramp to Slauson	3	1	---	68.6	0.0	---	---	Sound Level	
Slauson to Orr and Day	4	1	---	62.8	0.0	---	---	Sound Level	
Orr and Day to Arlee	5	1	---	55.8	0.0	---	---	Sound Level	
Arlee to Florence	6	1	---	66.8	0.0	---	---	Sound Level	
Florence to Lakeland	7	1	---	67.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 4:01:30 PM

CASE:

Santa Fe  
Springs\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Mulberry to Sorensen	1	1	---	64.8	0.0	---	---	Sound Level	
Sorensen to Telegraph	2	1	---	68.9	0.0	---	---	Sound Level	

## REPORT:

## Results: Sound Levels - No Barrier Objects

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 4:35:24 PM

CASE:

Shoemaker\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Telegraph to Florence	1	1	---	62.3	0.0	---	---	Sound Level	
Florence to Meyer	2	1	---	65.6	0.0	---	---	Sound Level	
Meyer to Sunshine	3	1	---	59.3	0.0	---	---	Sound Level	
Sunshine to Imperial	4	1	---	61.9	0.0	---	---	Sound Level	
Rosecrans to Rail ROW	5	1	---	65.0	0.0	---	---	Sound Level	
Rail ROW to Alondra	6	1	---	68.8	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 4:59:48 PM

CASE:

Slauson\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Santa Fe Springs to Sorensen	1	1	---	70.5	0.0	---	---	Sound Level	
Sorensen to Dice	2	1	---	69.4	0.0	---	---	Sound Level	
Dice to Norwalk	3	1	---	72.0	0.0	---	---	Sound Level	
Norwalk to Pioneer	4	1	---	71.3	0.0	---	---	Sound Level	
Pioneer to Passons	5	1	---	73.4	0.0	---	---	Sound Level	



## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 5:56:46 PM

CASE:

Telegraph\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Leffingwell to Valley View	1	1	---	70.7	0.0	---	---	Sound Level	
Valley View to Mills/Florence	2	1	---	72.6	0.0	---	---	Sound Level	
Mills/Florence to Carmenita	3	1	---	70.3	0.0	---	---	Sound Level	
Carmenita to Bloomfield	4	1	---	69.3	0.0	---	---	Sound Level	
Bloomfield to Orr and Day	5	1	---	71.0	0.0	---	---	Sound Level	
Orr and Day to True	6	1	---	72.9	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 6:16:29 PM

CASE:

Washington\_20EX

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Calobar/Rivera to Sorensen	1	1	---	69.7	0.0	---	---	Sound Level	
Sorensen to Norwalk	2	1	---	71.1	0.0	---	---	Sound Level	
Norwalk to Pioneer	3	1	---	72.0	0.0	---	---	Sound Level	
Pioneer to San Gabriel River	4	1	---	72.5	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 10:51:56 PM

CASE:

I5\_EX20

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing  Lden					
				Lden		Increase over Existing		Type  of  Impact
					Absolute		Relative	
			Calc.	Criterion	Calc.	Criterion		
			dBA	dBA	dBA	dBA	dBA	

&lt;No Receiver Data&gt;

## REPORT:

## RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT

TNM VERSION:

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 10:53:45 PM

CASE:

I5\_EX20

ORGANIZATION:

MIG, Inc.

ANALYSIS BY:

CDugan

PROJECT/CONTRACT:

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

DEFAULT GROUND  
TYPE:

HardSoil

Selected Receivers		Total Lden	Important Barriers Name	Important Segments		Partial Lden
Name	No.			Name	No.	
		dBA				dBA
I5 Valley View to Rosecrans	1	75.5	Barrier-1	Point-0	0	36.8
			Barrier-2	Point-2	0	36.8
			Barrier-3	Point-4	0	36.8
I5 Rail Track to River	2	76.1	Barrier-1	Point-0	0	40.5
			Barrier-2	Point-2	0	40.5
			Barrier-3	Point-4	0	40.5
I605 I5 to City Limit	3	78.0	Barrier-1	Point-0	0	36.3
			Barrier-2	Point-2	0	36.3
			Barrier-3	Point-4	0	36.3

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## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 8:03:10 PM

CASE:

Bloomfield\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing  Lden  dBA					Type  of  Impact
				Lden		Increase over Existing		
				Calc.	Absolute Criterion	Calc.	Relative Criterion	
				dBA	dBA	dBA	dBA	
Receiver-1	1	1	---	70.3	0.0	---	---	Sound Level
Receiver-2	2	1	---	69.5	0.0	---	---	Sound Level

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 8:39:56 PM

CASE:

Carmenita\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2020 Existing

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Painter to Telegraph	1	1	---	67.5	0.0	---	---	Sound Level	
Telegraph to Florence	2	1	---	67.2	0.0	---	---	Sound Level	
Florence to Meyer	3	1	---	67.9	0.0	---	---	Sound Level	
Meyer to Leffingwell	4	1	---	68.3	0.0	---	---	Sound Level	
Leffingwell to Imperial	5	1	---	71.7	0.0	---	---	Sound Level	
Imperial to Rosecrans	6	1	---	72.2	0.0	---	---	Sound Level	
Rosecrans to I-5 NB Ramp	7	1	---	72.1	0.0	---	---	Sound Level	
I-5 NB Ramp to Firestone	8	1	---	71.9	0.0	---	---	Sound Level	
Firestone to Alondra	9	1	---	71.7	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 8:57:38 PM

CASE:

Florence\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type of Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Telegraph to Carmenita	1	1	---	70.7	0.0	---	---	Sound Level	
Carmenita to Bloomfield	2	1	---	72.8	0.0	---	---	Sound Level	
Bloomfield to Pioneer	3	1	---	71.6	0.0	---	---	Sound Level	
Pioneer to Fairfield	4	1	---	72.7	0.0	---	---	Sound Level	



## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 9:05:33 PM

CASE:

Greenleaf\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type of Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA	dBA		dBA
Mulberry to Telegraph	1	1	---	60.4	0.0	---	---	Sound Level	
Los Nietos to Telegraph	2	1	---	62.9	0.0	---	---	Sound Level	

## REPORT:

## RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT

TNM VERSION:

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 11:12:07 PM

CASE:

Interstates\_NP40

ORGANIZATION:

MIG, Inc.

ANALYSIS BY:

CDugan

PROJECT/CONTRACT: Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

DEFAULT GROUND  
TYPE:

HardSoil

Selected Receivers		Total Lden	Important Barriers Name	Important Segments		Partial Lden
Name	No.			Name	No.	
		dBA				dBA
I5 Valley View to Rosecrans	1	75.7	Barrier-1	Point-0	0	36.9
			Barrier-2	Point-2	0	36.9
			Barrier-3	Point-4	0	36.9
I5 Rail Track to River	2	76.2	Barrier-1	Point-0	0	40.6
			Barrier-2	Point-2	0	40.6
			Barrier-3	Point-4	0	40.6
I605 I5 to City Limit	3	78.1	Barrier-1	Point-0	0	36.4
			Barrier-2	Point-2	0	36.4
			Barrier-3	Point-4	0	36.4

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 9:18:47 PM

CASE:

Lakeland\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						Type of Impact
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Carmenita to Laurel	1	1	---	62.3	0.0	---	---	Sound Level	
Laurel to Painter	2	1	---	61.9	0.0	---	---	Sound Level	
Painter to Shoemaker	3	1	---	60.2	0.0	---	---	Sound Level	
Shoemaker to Bloomfield	4	1	---	63.0	0.0	---	---	Sound Level	
Bloomfield to Norwalk	5	1	---	58.5	0.0	---	---	Sound Level	
Norwalk to Pioneer	6	1	---	61.0	0.0	---	---	Sound Level	

REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION	3.0.7.60002	REPORT DATE:	18 July 2021
CALCULATED WITH:	3.0.7.60002	CALCULATION DATE:	7/18/2021 9:23:26 PM
CASE:	Mulberry_NP40	ORGANIZATION:	MIG, Inc.
UNITS:	English	ANALYSIS BY:	CDugan
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Santa Fe Springs General Plan - 2040 No Project
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state	
PAVEMENT TYPE(S) USED:	Average	highway agency substantiates the use of a different	
		type with approval FHWA.	

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Painter to Santa Fe Springs	1	1	---	70.0	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 9:34:28 PM

CASE:

Norwalk\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing  Lden  dBA					Type  of  Impact
				Lden		Increase over Existing		
				Calc.	Absolute Criterion	Calc.	Relative Criterion	
				dBA	dBA	dBA	dBA	
Mines to Washington	1	1	---	69.8	0.0	---	---	Sound Level
Washington to Slauson	2	1	---	69.1	0.0	---	---	Sound Level
Slauson to Los Nietos	3	1	---	72.8	0.0	---	---	Sound Level
Los Nietos to Telegraph	4	1	---	69.1	0.0	---	---	Sound Level
Telegraph to Florence	5	1	---	71.1	0.0	---	---	Sound Level
Florence to 4th	6	1	---	70.7	0.0	---	---	Sound Level

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 9:39:50 PM

CASE:

Painter\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
					Absolute		Relative		
				Calc.	Criterion	Calc.	Criterion		
				dBA	dBA	dBA	dBA		
Mulberry to Wallburg	1	1	---	67.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 9:59:03 PM

CASE:

Pioneer\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Saragosa to Washington	1	1	---	66.6	0.0	---	---	Sound Level	
Washington to I-605 NB Ramp	2	1	---	66.5	0.0	---	---	Sound Level	
I-605 NB Ramp to Slauson	3	1	---	68.4	0.0	---	---	Sound Level	
Slauson to Orr and Day	4	1	---	64.3	0.0	---	---	Sound Level	
Orr and Day to Arlee	5	1	---	59.2	0.0	---	---	Sound Level	
Arlee to Florence	6	1	---	67.6	0.0	---	---	Sound Level	
Florence to Lakeland	7	1	---	67.7	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 10:14:21 PM

CASE:

SantaFeSprings\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type  of  Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA	dBA		dBA
Mulberry to Sorensen	1	1	---	65.8	0.0	---	---	Sound Level	
Sorensen to Telegraph	2	1	---	70.0	0.0	---	---	Sound Level	



## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 10:29:00 PM

CASE:

Shoemaker\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Telegraph to Florence	1	1	---	63.7	0.0	---	---	Sound Level	
Florence to Meyer	2	1	---	64.7	0.0	---	---	Sound Level	
Meyer to Sunshine	3	1	---	63.9	0.0	---	---	Sound Level	
Sunshine to Imperial	4	1	---	65.4	0.0	---	---	Sound Level	
Rosecrans to Rail ROW	5	1	---	66.2	0.0	---	---	Sound Level	
Rail ROW to Alondra	6	1	---	69.5	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 10:41:27 PM

CASE:

Slauson\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing  Lden  dBA					
				Lden		Increase over Existing		Type of Impact
				Calc.	Absolute Criterion	Calc.	Relative Criterion	
				dBA	dBA	dBA	dBA	
Santa Fe Springs to Sorensen	1	1	---	70.3	0.0	---	---	Sound Level
Sorensen to Dice	2	1	---	69.5	0.0	---	---	Sound Level
Dice to Norwalk	3	1	---	72.0	0.0	---	---	Sound Level
Norwalk to Pioneer	4	1	---	71.5	0.0	---	---	Sound Level
Pioneer to Passons	5	1	---	73.0	0.0	---	---	Sound Level

## REPORT:

## Results: Sound Levels - No Barrier Objects

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 11:01:58 PM

CASE:

Telegraph\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing  Lden  dBA					Type of Impact
				Lden		Increase over Existing		
				Calc.	Absolute Criterion	Calc.	Relative Criterion	
				dBA	dBA	dBA	dBA	
Leffingwell to Valley View	1	1	---	70.8	0.0	---	---	Sound Level
Valley View to Mills/Florence	2	1	---	72.5	0.0	---	---	Sound Level
Mills/Florence to Carmenita	3	1	---	70.2	0.0	---	---	Sound Level
Carmenita to Bloomfield	4	1	---	68.8	0.0	---	---	Sound Level
Bloomfield to Orr and Day	5	1	---	70.7	0.0	---	---	Sound Level
Orr and Day to True	6	1	---	73.0	0.0	---	---	Sound Level

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 11:13:33 PM

CASE:

Washington\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type of Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Calobar/Rivera to Sorensen	1	1	---	69.6	0.0	---	---	Sound Level	
Sorensen to Norwalk	2	1	---	70.4	0.0	---	---	Sound Level	
Norwalk to Pioneer	3	1	---	72.0	0.0	---	---	Sound Level	
Pioneer to San Gabriel River	4	1	---	72.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

18 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/18/2021 9:00:52 PM

CASE:

Imperial\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
Name	No.	Nb. R.R.	Existing  Lden					Type  of  Impact
				Lden		Increase over Existing		
				Calc.	Absolute Criterion	Calc.	Relative Criterion	
			dBA	dBA	dBA	dBA	dBA	
ValleyView to Carmenita	0	0	---	70.6	0.0	---	---	Sound Level
Carmenita to Leffingwell	0	0	---	70.0	0.0	---	---	Sound Level
Leffingwell to Bloomfield	0	0	---	73.1	0.0	---	---	Sound Level

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 11:12:07 PM

CASE:

Interstates\_NP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 No Project

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
I5 Valley View to Rosecrans	1	1	---	86.7	0.0	---	---	Sound Level	
I5 Rail Track to River	2	1	---	86.7	0.0	---	---	Sound Level	
I605 I5 to City Limit	3	1	---	87.8	0.0	---	---	Sound Level	

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## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 12:05:38 AM

CASE:

Bloomfield\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA	dBA		dBA
Receiver-1	1	1	---	69.5	0.0	---	---	Sound Level	
Receiver-2	2	1	---	68.7	0.0	---	---	Sound Level	



## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 1:57:33 PM

CASE:

Carmenita\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Painter to Telegraph	1	1	---	67.5	0.0	---	---	Sound Level	
Telegraph to Florence	2	1	---	67.3	0.0	---	---	Sound Level	
Florence to Meyer	3	1	---	67.9	0.0	---	---	Sound Level	
Meyer to Leffingwell	4	1	---	68.4	0.0	---	---	Sound Level	
Leffingwell to Imperial	5	1	---	71.9	0.0	---	---	Sound Level	
Imperial to Rosecrans	6	1	---	72.4	0.0	---	---	Sound Level	
Rosecrans to I-5 NB Ramp	7	1	---	72.3	0.0	---	---	Sound Level	
I-5 NB Ramp to Firestone	8	1	---	72.1	0.0	---	---	Sound Level	
Firestone to Alondra	9	1	---	71.7	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 10:23:25 AM

CASE:

Florence\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Telegraph to Carmenita	1	1	---	70.5	0.0	---	---	Sound Level	
Carmenita to Bloomfield	2	1	---	72.9	0.0	---	---	Sound Level	
Bloomfield to Pioneer	3	1	---	72.0	0.0	---	---	Sound Level	
Pioneer to Fairfield	4	1	---	73.1	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 10:29:44 AM

CASE:

Greenleaf\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden					Type of Impact	
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Mulberry to Telegraph	1	1	---	54.9	0.0	---	---	Sound Level	
Los Nietos to Telegraph	2	1	---	62.1	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 1:12:07 AM

CASE:

Imperial\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA	dBA	dBA	
ValleyView to Carmenita	1	1	---	70.7	0.0	---	---	Sound Level	
Carmenita to Leffingwell	2	1	---	70.3	0.0	---	---	Sound Level	
Leffingwell to Bloomfield	3	1	---	73.4	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 2:05:03 PM

CASE:

Lakeland\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						Type of Impact
				Lden		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Carmenita to Laurel	1	1	---	60.3	0.0	---	---	Sound Level	
Laurel to Painter	2	1	---	61.2	0.0	---	---	Sound Level	
Painter to Shoemaker	3	1	---	57.2	0.0	---	---	Sound Level	
Shoemaker to Bloomfield	4	1	---	63.1	0.0	---	---	Sound Level	
Bloomfield to Norwalk	5	1	---	58.6	0.0	---	---	Sound Level	
Norwalk to Pioneer	6	1	---	60.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 11:05:07 AM

CASE:

Mulberry\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Painter to Santa Fe Springs	1	1	---	70.4	0.0	---	---	---	Sound Level

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 11:30:44 AM

CASE:

Norwalk\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Mines to Washington	1	1	---	69.6	0.0	---	---	Sound Level	
Washington to Slauson	2	1	---	69.3	0.0	---	---	Sound Level	
Slauson to Los Nietos	3	1	---	72.9	0.0	---	---	Sound Level	
Los Nietos to Telegraph	4	1	---	69.2	0.0	---	---	Sound Level	
Telegraph to Florence	5	1	---	71.6	0.0	---	---	Sound Level	
Florence to 4th	6	1	---	71.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 10:23:37 PM

CASE:

Painter\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Mulberry to Wallburg	1	1	---	67.7	0.0	---	---	Sound Level	



## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 10:50:14 PM

CASE:

Pioneer\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Saragosa to Washington	1	1	---	66.0	0.0	---	---	Sound Level	
Washington to I-605 NB Ramp	2	1	---	66.3	0.0	---	---	Sound Level	
I-605 NB Ramp to Slauson	3	1	---	68.4	0.0	---	---	Sound Level	
Slauson to Orr and Day	4	1	---	63.0	0.0	---	---	Sound Level	
Orr and Day to Arlee	5	1	---	56.1	0.0	---	---	Sound Level	
Arlee to Florence	6	1	---	67.8	0.0	---	---	Sound Level	
Florence to Lakeland	7	1	---	68.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 11:00:43 PM

CASE:

SantaFeSprings\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Mulberry to Sorensen	1	1	---	64.9	0.0	---	---	Sound Level	
Sorensen to Telegraph	2	1	---	68.9	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 11:26:04 PM

CASE:

Shoemaker\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Telegraph to Florence	1	1	---	62.9	0.0	---	---	Sound Level	
Florence to Meyer	2	1	---	65.6	0.0	---	---	Sound Level	
Meyer to Sunshine	3	1	---	61.4	0.0	---	---	Sound Level	
Sunshine to Imperial	4	1	---	63.7	0.0	---	---	Sound Level	
Rosecrans to Rail ROW	5	1	---	66.0	0.0	---	---	Sound Level	
Rail ROW to Alondra	6	1	---	69.0	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

19 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/19/2021 11:44:22 PM

CASE:

Slauson\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Santa Fe Springs to Sorensen	1	1	---	70.4	0.0	---	---	Sound Level	
Sorensen to Dice	2	1	---	69.8	0.0	---	---	Sound Level	
Dice to Norwalk	3	1	---	72.2	0.0	---	---	Sound Level	
Norwalk to Pioneer	4	1	---	71.5	0.0	---	---	Sound Level	
Pioneer to Passons	5	1	---	73.4	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 12:11:01 AM

CASE:

Telegraph\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden  dBA						
				Lden		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Leffingwell to Valley View	1	1	---	71.2	0.0	---	---	Sound Level	
Valley View to Mills/Florence	2	1	---	72.9	0.0	---	---	Sound Level	
Mills/Florence to Carmenita	3	1	---	70.2	0.0	---	---	Sound Level	
Carmenita to Bloomfield	4	1	---	69.0	0.0	---	---	Sound Level	
Bloomfield to Orr and Day	5	1	---	70.9	0.0	---	---	Sound Level	
Orr and Day to True	6	1	---	73.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

20 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/20/2021 12:32:24 AM

CASE:

Washington\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
Calobar/Rivera to Sorensen	1	1	---	69.8	0.0	---	---	Sound Level	
Sorensen to Norwalk	2	1	---	71.0	0.0	---	---	Sound Level	
Norwalk to Pioneer	3	1	---	72.1	0.0	---	---	Sound Level	
Pioneer to San Gabriel River	4	1	---	72.4	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.0.7.60002

REPORT DATE:

21 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/21/2021 12:14:06 PM

CASE:

Interstates\_GP40

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Santa Fe Springs General Plan - 2040 General Plan

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  Lden						
				Lden		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
			dBA	dBA	dBA	dBA			
I5 Valley View to Rosecrans	1	1	---	86.8	0.0	---	---	Sound Level	
I5 Rail Track to River	2	1	---	86.8	0.0	---	---	Sound Level	
I605 I5 to City Limit	3	1	---	87.9	0.0	---	---	Sound Level	

## REPORT:

## RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT

TNM VERSION:

3.0.7.60002

REPORT DATE:

21 July 2021

CALCULATED WITH:

3.0.7.60002

CALCULATION DATE:

7/21/2021 12:14:06 PM

CASE:

Interstates\_GP40

ORGANIZATION:

MIG, Inc.

ANALYSIS BY:

CDugan

PROJECT/CONTRACT:

Santa Fe Springs General Plan - 2040 General  
Plan

ATMOSPHERICS:

68°F, 50%

DEFAULT GROUND  
TYPE:

HardSoil

Selected Receivers		Total Lden  dBA	Important Barriers  Name	Important Segments		Partial Lden  dBA
Name	No.			Name	No.	
I5 Valley View to Rosecrans	1	75.8	Barrier-1	Point-0	0	37.1
			Barrier-2	Point-2	0	37.1
			Barrier-3	Point-4	0	37.1
I5 Rail Track to River	2	76.4	Barrier-1	Point-0	0	40.8
			Barrier-2	Point-2	0	40.8
			Barrier-3	Point-4	0	40.8
I605 I5 to City Limit	3	78.2	Barrier-1	Point-0	0	36.6
			Barrier-2	Point-2	0	36.6
			Barrier-3	Point-4	0	36.6



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# Noise Model

Noise Model Based on Federal Transit Administration General Transit Noise Assessment  
 Developed for Chicago Create Project  
 Copyright 2006, HMMH Inc.  
 Case: Santa Fe Springs Existing Conditions (2020)

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	74	68	68
Source 1	72	66	66
Source 2	70	63	63
Source 3	60	54	54
Source 4	0	0	0
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS						
Parameter	Source 1		Source 2		Source 3	
Source Num.	Freight Locomotive	9	Freight Cars	10	Crossover	13
Distance (source to receiver)	distance (ft)	50	distance (ft)	50	distance (ft)	50
Daytime Hours (7 AM - 10 PM)	speed (mph)	35	speed (mph)	35	trains/hour	0.5
	trains/hour	1	trains/hour	1	duration of one train (sec)	300
	locos/train	3	length of cars (ft) / train	2000		
Nighttime Hours (10 PM - 7 AM)	speed (mph)	35	speed (mph)	35	trains/hour	0.5
	trains/hour	1	trains/hour	1	duration of one train (sec)	300
	locos/train	3	length of cars (ft) / train	2000		
Wheel Flats?			% of cars w/ wheel flats	0.00%		
Jointed Track?	Y/N	n	Y/N	n		
Embedded Track?	Y/N	n	Y/N	n	Y/N	y
Aerial Structure?	Y/N	n	Y/N	n	Y/N	n
Barrier Present?	Y/N	n	Y/N	n	Y/N	n
Intervening Rows of Buildings	number of rows	0	number of rows	0	number of rows	0

Noise Model

Noise Model Based on Federal Transit Administration General Transit Noise Assessment  
 Developed for Chicago Create Project  
 Copyright 2006, HMMH Inc.  
 Case: Santa Fe Springs Existing Conditions (2020)

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	74	68	68
Source 1	72	66	66
Source 2	70	63	63
Source 3	63	57	57
Source 4	55	56	44
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS							
Parameter	Source 1		Source 2		Source 3		Source 4
Source Num.	Freight Locomotive	9	Freight Cars	10	Crossover	13	Commuter Electric Locomotive 1
Distance (source to receiver)	distance (ft)	50	distance (ft)	50	distance (ft)	50	distance (ft) 50
Daytime Hours (7 AM - 10 PM)	speed (mph)	35	speed (mph)	35	trains/hour	1	speed (mph) 45
	trains/hour	1	trains/hour	1	duration of one train (sec)	300	trains/hour 1.5
	locos/train	3	length of cars (ft) / train	2000			locos/train 1
Nighttime Hours (10 PM - 7 AM)	speed (mph)	35	speed (mph)	35	trains/hour	1	speed (mph) 45
	trains/hour	1	trains/hour	1	duration of one train (sec)	300	trains/hour 0.1
	locos/train	3	length of cars (ft) / train	2000			locos/train 1
Wheel Flats?			% of cars w/ wheel flats	0.00%			
Jointed Track?	Y/N	n	Y/N	n			Y/N n
Embedded Track?	Y/N	n	Y/N	n	Y/N	y	Y/N n
Aerial Structure?	Y/N	n	Y/N	n	Y/N	n	Y/N n
Barrier Present?	Y/N	n	Y/N	n	Y/N	n	Y/N n
Intervening Rows of Buildings	number of rows	0	number of rows	0	number of rows	0	number of rows 0

# Noise Model

## Noise Model Based on Federal Transit Administration General Transit Noise Assessment

Developed for Chicago Create Project

Copyright 2006, HMMH Inc.

Case:

Santa Fe Springs Existing Conditions (2020)

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	77	71	71
Source 1	75	69	69
Source 2	73	66	66
Source 3	66	60	60
Source 4	0	0	0
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS						
Parameter	Source 1		Source 2		Source 3	
Source Num.	Freight Locomotive	9	Freight Cars	10	Crossover	13
Distance (source to receiver)	distance (ft)	50	distance (ft)	50	distance (ft)	50
Daytime Hours (7 AM - 10 PM)	speed (mph)	35	speed (mph)	35	trains/hour	2
	trains/hour	2	trains/hour	2	duration of one train (sec)	300
	locos/train	3	length of cars (ft) / train	2000		
Nighttime Hours (10 PM - 7 AM)	speed (mph)	35	speed (mph)	35	trains/hour	2
	trains/hour	2	trains/hour	2	duration of one train (sec)	300
	locos/train	3	length of cars (ft) / train	2000		
Wheel Flats?			% of cars w/ wheel flats	0.00%		
Jointed Track?	Y/N	n	Y/N	n		
Embedded Track?	Y/N	n	Y/N	n	Y/N	y
Aerial Structure?	Y/N	n	Y/N	n	Y/N	n
Barrier Present?	Y/N	n	Y/N	n	Y/N	n
Intervening Rows of Buildings	number of rows	0	number of rows	0	number of rows	0

# Noise Model

Noise Model Based on Federal Transit Administration General Transit Noise Assessment  
 Developed for Chicago Create Project  
 Copyright 2006, HMMH Inc.  
 Case: Santa Fe Springs Existing Conditions (2020)

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	77	71	71
Source 1	75	69	69
Source 2	73	66	66
Source 3	66	60	60
Source 4	57	57	47
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS							
Parameter	Source 1		Source 2		Source 3		Source 4
Source Num.	Freight Locomotive	9	Freight Cars	10	Crossover	13	Commuter Electric Locomotive 1
Distance (source to receiver)	distance (ft)	50	distance (ft)	50	distance (ft)	50	distance (ft) 50
Daytime Hours (7 AM - 10 PM)	speed (mph)	35	speed (mph)	35	trains/hour	2	speed (mph) 45
	trains/hour	2	trains/hour	2	duration of one train (sec)	300	trains/hour 2
	locos/train	3	length of cars (ft) / train	2000			locos/train 1
Nighttime Hours (10 PM - 7 AM)	speed (mph)	35	speed (mph)	35	trains/hour	2	speed (mph) 45
	trains/hour	2	trains/hour	2	duration of one train (sec)	300	trains/hour 0.2
	locos/train	3	length of cars (ft) / train	2000			locos/train 1
Wheel Flats?			% of cars w/ wheel flats	0.00%			
Jointed Track?	Y/N	n	Y/N	n			Y/N n
Embedded Track?	Y/N	n	Y/N	n	Y/N	y	Y/N n
Aerial Structure?	Y/N	n	Y/N	n	Y/N	n	Y/N n
Barrier Present?	Y/N	n	Y/N	n	Y/N	n	Y/N n
Intervening Rows of Buildings	number of rows	0	number of rows	0	number of rows	0	number of rows 0

## Appendix F: Traffic Impact Analysis

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# Santa Fe Springs General Plan / Housing Element Transportation Circulation Plan

Prepared for:  
MIG

October 2021

LB20-0011

FEHR  PEERS



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# Introduction

This report summarizes the results of the transportation impact analysis conducted by Fehr & Peers for the Santa Fe Springs General Plan and contextualizes this analysis in light of changes to technical practices that are evolving due to the implementation of SB 743. This 2013 law is shifting transportation impact analysis for California Environmental Quality Act (CEQA) purposes away from vehicle Level of Service (LOS) and measures of vehicle delay to vehicle miles traveled (VMT). This shift is intended to better align CEQA transportation impact analysis with state goals to encourage infill development, promote active transportation, and reduce greenhouse gases (GHGs).

In December 2018, new CEQA Guidelines implementing SB 743 (Section 15064.3), along with the Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts for CEQA, were finalized and made effective. Guidelines Section 15064.3, and the associated OPR Technical Advisory, specify that use of VMT is the preferred statewide CEQA transportation metric, and correspondingly eliminate auto delay/LOS as the preferred metric for assessing significant impacts under CEQA. Under Section 15064.3, statewide application of the new VMT metric is required beginning on July 1, 2020.

In response to SB 743, the City of Santa Fe Springs is in the process of adopting new transportation impact thresholds to adhere to CEQA requirements and providing guidance on conducting transportation studies in the City. The City has determined that a dual analysis process will be applied for identifying and evaluating potential transportation impacts and necessary roadway improvements associated with new land development and infrastructure projects located within the City. The first analysis will consist of an approach using the metric of vehicle miles traveled (VMT) to identify potential transportation impacts by applying CEQA designated methodologies and thresholds. The second analysis will be a localized approach conducted primarily to identify potential safety and operational issues when applied against criteria the City has established.

Given these evolving changes to practice, the transportation impact analysis for Santa Fe Springs' General Plan has been analyzed using VMT and LOS. This report aims to explain the approach and outcomes associated with each metric.

## Project Description

The City of Santa Fe Springs is updating its General Plan, including a new land use plan contained in the Housing Element. The new land use plan proposes three different levels of residential density (low, medium, high) within the city boundaries. A mixed-use district is proposed near Washington Boulevard, near the existing Metrolink station located at Bloomfield Avenue and Imperial Highway, and along areas of Telegraph Road. A Downtown district is proposed around the intersection of Telegraph and Norwalk and the future Metro station, including entertainment, commercial, civic, and light industrial.



This report provides the approach and results from analyzing and evaluating potential impacts to the transportation system from the “realistic buildout” of the City’s General Plan Land Use Plan (GPLUP) for the year 2040. Realistic buildout under the GPLUP represents the land use plan densities and intensities based on economic market conditions and physical parcel and infrastructure constraints that cap the potential land use program to determine the realistic buildout. Future household allocation is found in **Figure 1**. This figure illustrates the location of households within the City within geographic areas defined as traffic analysis zones (TAZ). TAZs represent geographic areas and are used in the SCAG regional travel demand forecasting model to represent land use and socio-economic trends throughout the SCAG region. As shown, the greatest concentration of households is in the northwestern area of the City adjacent to the I-605 corridor and eastern portion of the City north of the Imperial Highway.

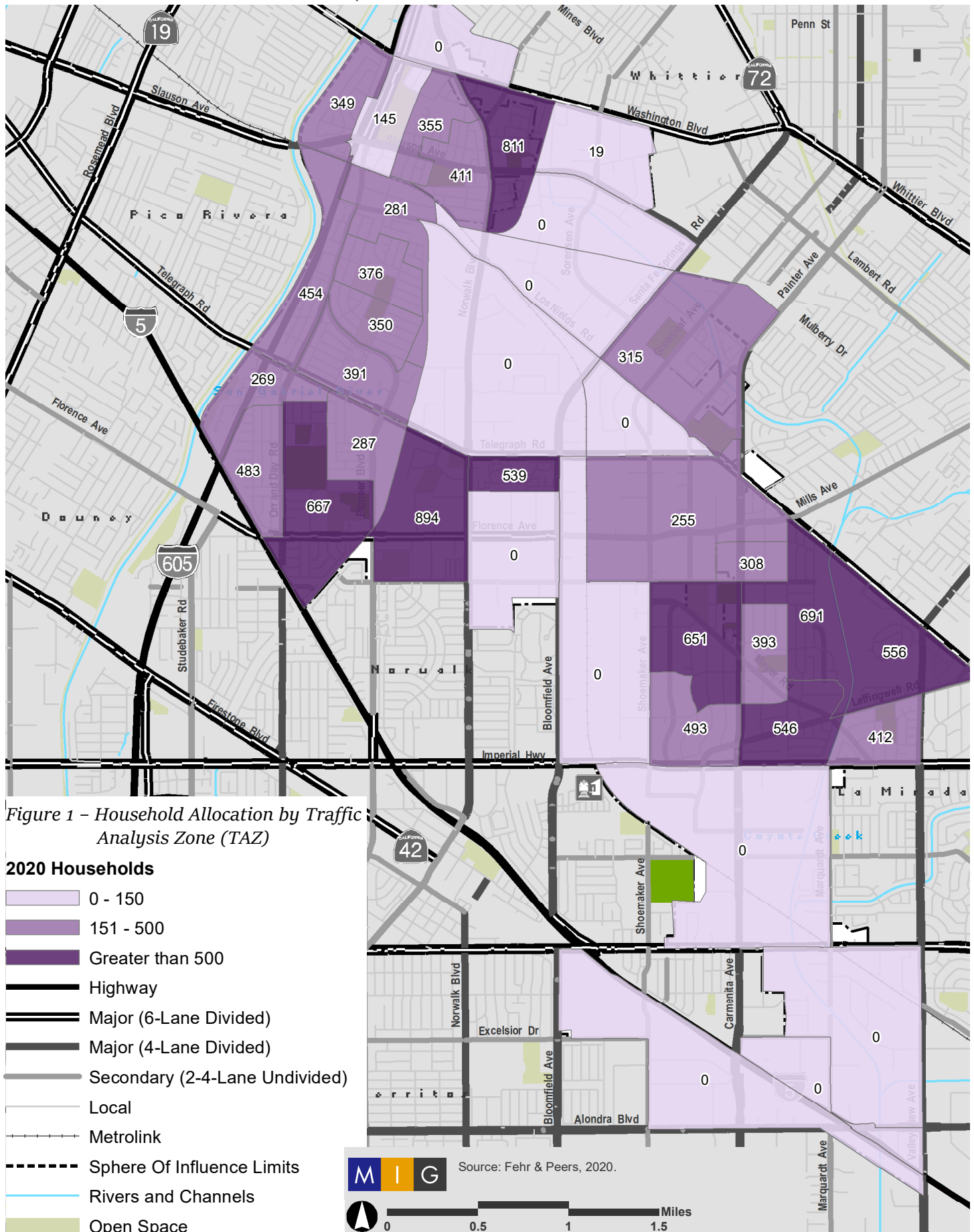
## Transit Priority Areas

The City of Santa Fe Springs has determined the current Transit Priority Areas to be areas within one-half mile of where two or more 15-minute (during commute hours) bus routes intersect, or within one-half mile of a corridor served by 15-minute (during commute hours) bus service. Santa Fe Springs’s current Transit Priority Areas are shown in **Figure 2**. LA Metro is evaluating the Eastside Transit Corridor Phase 2, an extension of the Metro L Line (Gold) further east. The project is currently undergoing environmental review and is planned to have two stations serving Santa Fe Springs, one at Norwalk Boulevard/Washington Boulevard and one located within the City of Whittier at Lambert Road/Washington Boulevard as the terminus. With the completion of the Eastside Transit Corridor Phase 2, the future boundary of Santa Fe Springs’s Transit Priority Areas would expand to include areas within one-half mile of the two stations mentioned above.

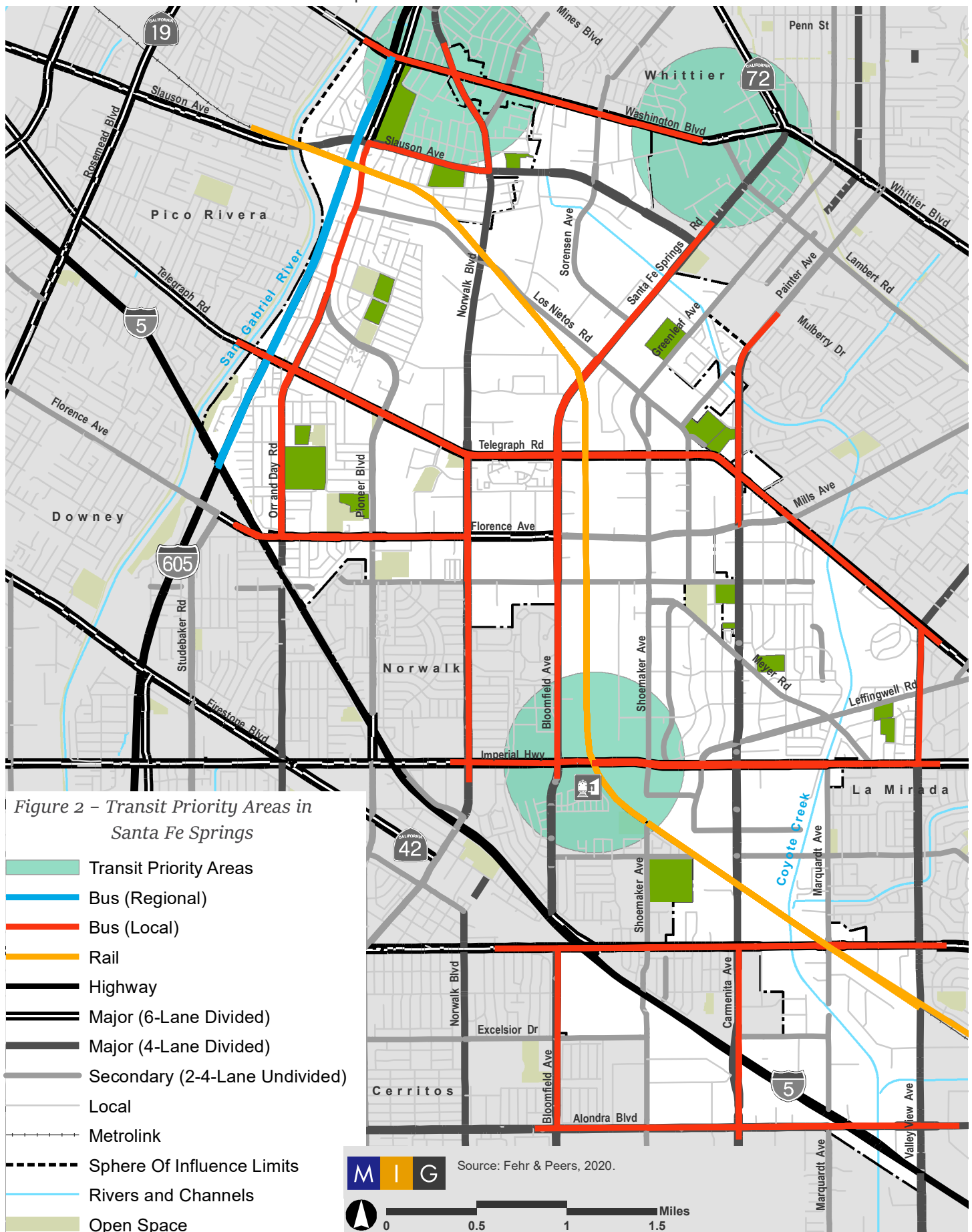


# 2020 Household Allocation by TAZ

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



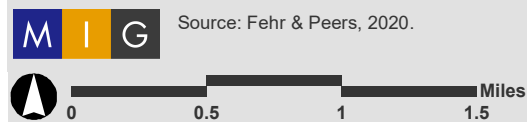
## RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



Legend:

- Transit Priority Areas
- Bus (Regional)
- Bus (Local)
- Rail
- Highway
- Major (6-Lane Divided)
- Major (4-Lane Divided)
- Secondary (2-4-Lane Undivided)
- Local
- Metrolink
- Sphere Of Influence Limits
- Rivers and Channels
- Open Space

Source: Fehr & Peers, 2020.





# VMT Overview

## What is VMT?

Pursuant to SB 743, VMT is the State of California's new metric to assess transportation impacts under the California Environmental Quality Act (CEQA) by evaluating the changes in VMT caused by a project. The simple definition of VMT is a measurement of the total mileage traveled by all vehicles in an area or generated by a project. This methodology is preferred because it is directly related to fuel consumption and emissions, which harm the environment.

Vehicle LOS is a measure of driver comfort and convenience, and while projects can alter these aspects of driving, the state has determined these effects on drivers do not constitute environmental impacts. Cities can continue to measure LOS as part of land use development plans and projects and require improvements to alleviate identified deficiencies. Those actions, however, must occur outside the CEQA process.

VMT growth associated with land use and transportation projects is part of adopted regional transportation plans (RTPs), regional transportation plans/sustainable communities strategies (RTP/SCSs), and general plans. These plans typically consider the acceptability of VMT growth at a cumulative or programmatic level. Additional VMT reduction may be achieved at the project level, especially through Transportation Demand Management (TDM) strategies, which are not fully accounted for in regional-level travel forecasting models, but are factored in.

Although VMT is focused on auto travel, the goal of a zero-or-less per capita VMT growth rate leads to an emphasis on the effects of development patterns (e.g., land use mix and density) together with attractive pedestrian, bicycle, and transit infrastructure, given that all of these factors have an impact on the number and length of vehicle trips. Efforts to reduce VMT may include implementation of TDM strategies and improvements to pedestrian, bicycle, and transit infrastructure as an alternative to personal vehicle usage.

## VMT Impact Thresholds

The City of Santa Fe Springs has established the following significance thresholds for VMT transportation impacts for each land use type in a project:

- For land use plans: Plans exceed 15% below City and Sphere of Influence (SOI) Existing VMT for Total VMT per service population.
- For residential projects: Project exceeds 15% below City and Sphere of Influence (SOI) Existing VMT for home-based VMT per capita.
- For office (commercial or light industrial) projects: Project exceeds 15% below City and Sphere of Influence (SOI) Existing VMT for home-based work VMT per employee.
- For regional retail projects: Project results in a net increase in total VMT in comparison to the City and SOI Cumulative Plus-Project VMT





- For mixed-use projects: Evaluate each project land use component separately using the criteria above.

## VTM Impact Analysis

Quantitative analysis is not required if it can be demonstrated that a project is consistent with the Housing Element and would generate VMT equivalent to or less than what was assumed in the Housing Element EIR. Multi-family residences generally have fewer trips per household than single-family residences, and therefore also produce less VMT per unit. Infill projects in developed areas generally have shorter trips, reduced vehicle trips, and therefore less VMT (i.e., located in low VMT areas).

## Project VMT Impact Analysis

For projects that do not meet any of the screening criteria, a VMT analysis is required and should rely on a reasonable standard of care to develop trip generation and trip length estimates for the project uses. For land use plans (e.g., Specific Plan or General Plan) and projects consisting of residential, office, or retail, the VMT analysis should be conducted using the SCAG regional Travel Demand Model. For other project types, such as a performing arts center or special event venues, the VMT analysis should be customized to determine the unique trip generation and trip length characteristics of the proposed uses. This approach should be determined in consultation with City of Santa Fe Springs staff.

VMT analysis should include “project generated VMT” for the project TAZ (or TAZs) and “project effect on VMT” estimates under the scenarios below (the project should be isolated from other uses within the project TAZ). Project generated VMT shall include the VMT generated by the site compared to the CEQA threshold of significance, as identified in CEQA Guidelines section 15064.3, subdivision (b). The project effect on VMT is the link-based VMT for a geographic region, which is more appropriate for evaluating how these developments change travel behavior in the region.

The VMT analysis should consider the potential impacts of the project under both existing and future/cumulative conditions as follows:

- **Existing Conditions:**  
Project-generated VMT should be estimated for the proposed land uses under existing conditions. VMT can be estimated using the SCAG regional Travel Demand Model and should be reported as Home-Based VMT per capita (residential projects), Home-Based Work VMT per employee (office or employment-generating projects), or Total VMT (all other land uses). For land use plans, Total VMT per service population or Total VMT can be used to determine potential impacts. Existing conditions typically represent the year of the Notice of Preparation (NOP).<sup>1</sup>
- **Cumulative (2040) Conditions:**  
Cumulative conditions reflects a future horizon with planned land use development and

---

<sup>1</sup> If an EIR is required, existing conditions should be tied to the NOP date. If an EIR is not required, the baseline may be tied to when an application is deemed complete.



transportation network improvements. The cumulative conditions analysis can be conducted using data available from the SCAG model to reflect the planning horizon with the RTP/SCS in place. The purpose of this analysis is to understand VMT in the future without the proposed project in place.

- **Cumulative (2040) plus-project:**

Cumulative plus-project conditions reflect a future horizon with the proposed project in place. To complete this analysis, the project land use would be added to the SCAG model and the VMT generated under future year conditions would be compared to both existing conditions and cumulative conditions without the project in place. .

As shown above, VMT reductions are necessary to meet identified impact thresholds. VMT mitigation is described below and is found in the *Transportation Study Guidelines (TSG)*.

### SCAG Travel Demand Model

The Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) trip-based model is a travel demand model with socioeconomic and transportation network inputs, such as population, employment, and the regional and local roadway network. The model outputs several travel behavior metrics, such as vehicle trips and trip lengths, that can be used to calculate VMT. The RTP/SCS model forecasts long-term transportation demands and identifies policies, actions, and funding sources to accommodate these demands. The RTP/SCS consists of the construction of new transportation facilities, transportation systems management strategies, transportation demand management and land use strategies. While SCAG adopted the 2020-2045 RTP/SCS Connect SoCal in September 2020, the travel demand forecasting model used to evaluate the plan is not yet available for use. SCAG's new RTP/SCS model is expected to be available for use on land use and transportation planning Projects in late 2021. Based on the planned growth and transportation improvements envisioned in the new RTP/SCS, the VMT trends reported from the 2016 RTP/SCS model are expected to be similar to those in the new 2020 model.

The specific version of the 2016 RTP /SCS travel demand model used to perform analysis for the Project was the 2016 RTP release of the SCAG model. This RTP included a 2021 scenario year, used as the Existing Base since it was the closest available year to 2020, and the 2040 scenario year, used as the Cumulative Base and Cumulative Plus-Project scenario. As discussed in the TDM Assumptions and Strategies section below, the 2040 scenario reflects a variety of transit improvements, such as new rail lines.

Additional modifications were made to land use and transportation network inputs to reflect more detailed data available for the Santa Fe Springs SOI and the projections in this General Plan for the 2040 year. The SCAG model already has projected socioeconomic data in each scenario, but the team used current census data to adjust the socioeconomic data in the Existing model run for the TAZs within the SOI. This was done using the five major categories of population, number of households, K-12 student enrollment, college student enrollment, and number of people employed in each TAZ. These five major categories were used to proportionally adjust all the subcategories already included in the SCAG model.



## **TDM Assumptions and Strategies**

Each run of the SCAG model has a TDM factor assigned to it, which dictates how many trips will be taken by a mode other than driving alone. The base SCAG model assumes an increase in this factor between the existing year and the 2040 model. To maintain a consistent analysis between the existing and future years, the TDM factor in both the 2040 cumulative and 2040 cumulative Plus-Project runs was adjusted to match the existing year.

The 2040 SCAG model also reflects the planned or potential transit expansions into the area. The Eastside Transit Corridor Phase 2, which will extend the Metro L Line (Gold) light rail line, is reflected in the model with stations at Norwalk Boulevard/Washington Boulevard and Lambert Road/Washington Boulevard. The California High-Speed Rail Phase 1 project proposes a station, reflected in the 2040 SCAG model, at the existing Norwalk/Santa Fe Springs Metrolink station near the Imperial Highway/Bloomfield Avenue intersection. Finally, the potential extension of the Metro C Line (Green) light rail line is incorporated into the study area of the 2040 SCAG model with a new terminus station at the existing Norwalk/Santa Fe Springs Metrolink station.

## **Traffic Volume Forecasts**

### *Cumulative 2040 Conditions*

For the Cumulative model, the K-12 and employment values were adjusted down, using factors for each TAZ to make sure the ratio of census data to base 2021 SCAG data in the Existing model would match the ratio of adjusted Cumulative base data to base 2040 SCAG data. The other categories used data directly from the SCAG model. A small college (Presbyterian Theological Seminary in America) with enrollment of 171 was also added to the relevant TAZ, since it was not included in the SCAG data.

The Cumulative model shows an overall reduction in VMT generated in the region compared to the existing conditions. Much of this can be attributed to various transit improvements in the SOI, as discussed above in the TDM Assumptions and Strategies section.

### *Cumulative Plus-Project 2040 Conditions*

The Cumulative Plus-Project data in the City and SOI was adjusted to match the land use designations in the General Plan. This included a large increase in the population and number of households compared to the Cumulative Base model, with less of a change in other categories. At locations where segment counts were collected, traffic grew between 1-7% in the 2040 Cumulative Plus-Project scenario compared to 2040 Cumulative.



# General Plan VMT Analysis

## VMT Methodology

The methodology for determining VMT transportation impacts in the City of Santa Fe Springs is contained in its previous General Plan, last updated in 1994, and is consistent with 1997 LA County Traffic Impact Analysis Guidelines. Santa Fe Springs is in the process of developing revised Transportation Study Guidelines (TSG) as of 2021. The Transportation Study Guidelines outlines the following process for performing analysis:

- Determine if VMT analysis is necessary by comparing project characteristics for each land use to the County's screening criteria.
- If a project component does not meet any of the screening criteria, perform VMT analysis for only the component that does not meet the screening criteria to determine that component's VMT (using the appropriate metric based on land-use type).
- Compare the project component VMT to the significance criteria to determine if there is VMT transportation impact.
- If there is an impact, identify mitigation measures to reduce the project impact.

The Southern California Association of Government (SCAG) Regional Travel Demand Model ("SCAG Model") was used to estimate VMT in the City. VMT is presented in numerous different forms depending on the analysis being conducted. "Home-Based VMT" per capita is used for residential projects and "Home-Based Work VMT" per employee for office projects. For the General Plan, Total VMT per service population or Total VMT is used to determine potential impacts.

Pursuant to OPR and Santa Fe Springs' TSG, this VMT analysis includes "project generated VMT" for the project TAZs and "project effect on VMT" estimates under the following conditions:

- The Cumulative Base 2040 Conditions represent the 2016-2040 SCAG Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS). Cumulative baseline VMT per service population is found in **Figure 3**.
- The Cumulative Plus-Project 2040 Conditions represent the proposed General Plan land use designations, including the additional housing proposed in the Housing Element. The amended General Plan land use is represented in the assumed growth of the cumulative year socioeconomic input data in the model. This is shown in **Figure 4**.



## VMT Impact Analysis

### Project-generated VMT

Project-generated VMT were extracted from the SCAG model by multiplying the origin-destination trip matrix which shows the number of trips by the final model assignment which shows the travel distance under the Cumulative Plus-Project 2040 Conditions. The summarized project generated VMT per service population is compared to the thresholds of significance determined by the City of Santa Fe Springs. Santa Fe Springs' TSG provides that "Home-Based VMT" per capita be prepared for residential projects and "Home-Based Work VMT" per employee be prepared for office projects; therefore, this section also presents these two metrics along with Total VMT per service population, which is summarized in **Table 1**.

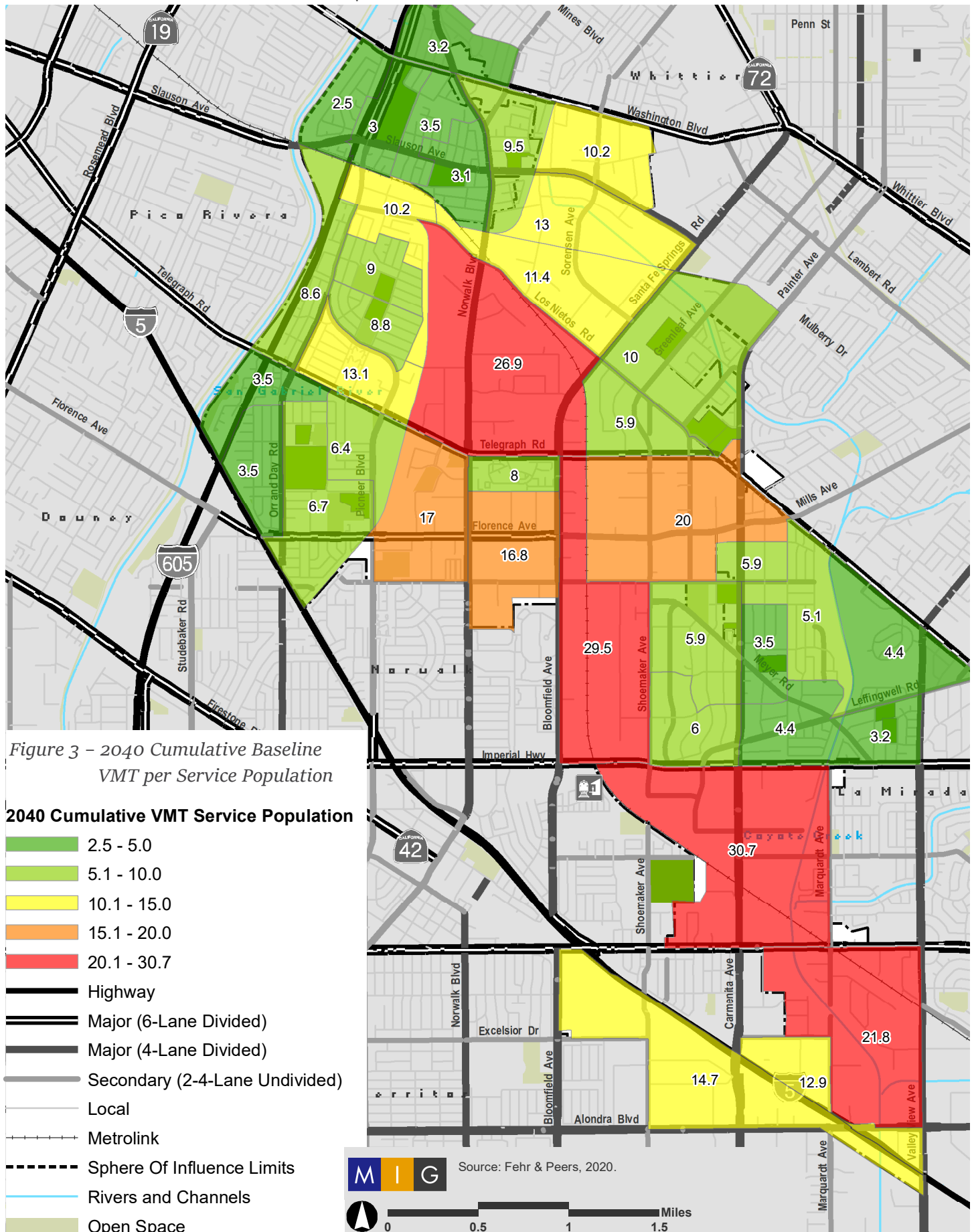
**Table 1: VMT Summary by Scenario**

SED/VMT Metrics	2020 Existing Conditions	Cumulative Base 2040 Conditions	Cumulative Plus-Project 2040 Conditions
Population	46,915	53,350	59,005
Employment	56,235	58,734	58,756
Service Population	103,150	112,084	117,761
Total VMT (Include Auto and Trucks)	3,414,318	3,294,172	3,475,193
Home-Based VMT (Production)	806,373	806,463	933,259
Home-Based Work VMT (Attraction)	1,029,560	1,009,706	1,015,470
Total VMT per Service Population	33.1	29.4	29.5
Home-Based VMT per Capita	17.2	15.1	15.8
Home-Based Work VMT per Employee	18.3	17.2	17.3



# 2040 Cumulative VMT per Service Population

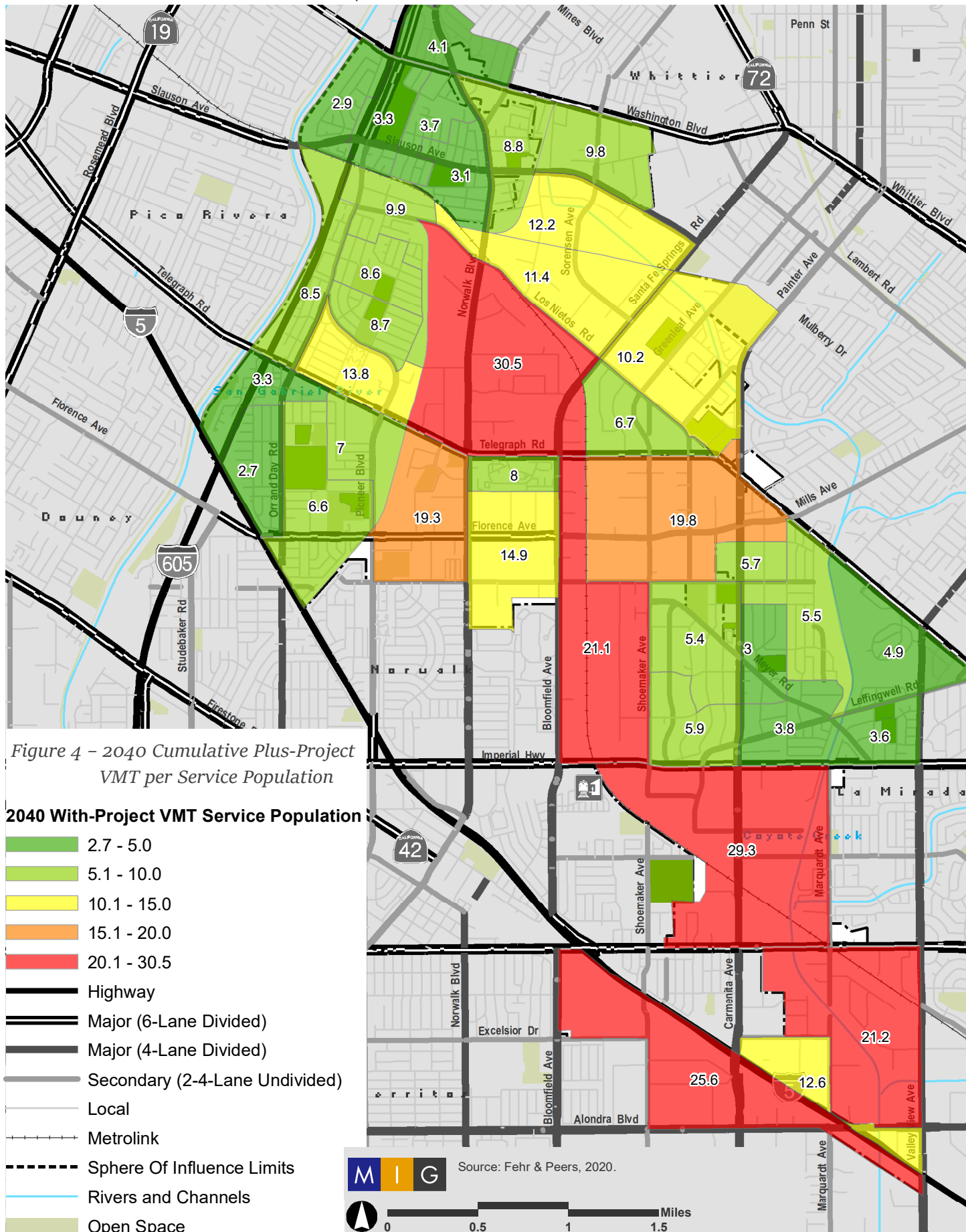
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# 2040 Cumulative Plus-Project VMT per Service Population

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Under Existing Conditions, the service population of 103,150 (46,915 residents and 56,235 jobs) in the City and SOI generates approximately 3.4 million vehicle miles traveled (VMT), including autos and trucks. This results in 33.1 VMT per service population, 17.2 Home-Based VMT per capita for residential land uses, and 18.3 Home-Based Work VMT per employee for employment land uses.

Under Cumulative Base 2040 Conditions, the service population is forecasted to increase by approximately 8,900 resulting in a total of 53,350 residents and 58,730 jobs. However, the amount of total VMT generated by the City is forecasted to decrease to approximately 3.3 million with 29.4 VMT per service population, 15.1 Home-Based VMT per capita for residential land uses, and 17.2 Home-Based Work VMT per employee for employment land uses.

Under the Cumulative Plus-Project 2040 Conditions, VMT increases to reflect additional development in the City of Santa Fe Springs. With the General Plan the service population of the City and SOI would be approximately 117,800 (59,000 residents and 58,800 jobs). In comparison to Existing Conditions, the service population increases by approximately 14,600 (12,090 additional residents and 2,520 additional jobs) whereas in comparison to Cumulative Base 2040 Conditions, the service population increases by approximately 5,700 (5,655 additional residents and 20 new jobs). The total VMT generated would be approximately 3.5 million with 29.5 VMT per service population, 15.8 Home-Based VMT per capita for residential land uses, and 17.3 Home-Based Work VMT per employee for employment land uses.

### Project-Effect on VMT

Project-effect on VMT were estimated using the City of Santa Fe Springs and SOI boundary and extracting the total link-level VMT for the Cumulative Base 2040 Conditions and the Cumulative Plus-Project 2040 Conditions. This method is comparing how the project changes VMT on the network, looking at citywide VMT per service population and comparing it to the no project condition.

**Table 2: Total Link-Level (Boundary) VMT by Scenario**

Scenario	Santa Fe Springs and SOI (Auto)	Santa Fe Springs and SOI (Truck)
2040 Cumulative Baseline	3,329,563	738,432
2040 Cumulative Plus-Project	3,475,193	715,440
% Change	1.8%	-3.1%

Source: Fehr & Peers, 2021

As shown in **Table 2**, additional VMT is generated in the City of Santa Fe Springs because of intensification of existing uses and new development. However, regional VMT is reduced because of the infill nature of this development and its proximity to high quality transit. Providing infill development helps to shorten the distance that people drive, such as a shorter commute between home and work or closer proximity to local commercial uses for household errands, and the future availability of high quality transit also affords more modal travel choices.





The estimated Project VMT was calculated based on the City of Santa Fe Springs and SOI boundary, but the TAZs originally drawn in the SCAG model do not fully align with the City of Santa Fe Springs and SOI boundaries, with six TAZs split by the borders. For three of these TAZs, the SOI portion of the data continued to be assigned to the original TAZ, and the rest of the data was added onto an adjacent TAZ outside the SOI. For the other three TAZs, the non-SOI data was retained in the original TAZ, and the rest of the data was added onto an adjacent TAZ within the SOI. The exact splits were based on a variety of factors, with some from census data, others just based on the area inside and outside the SOI. **Table 3** shows the 15% threshold targets when applied to existing VMT levels.

**Table 3: VMT Impact Threshold**

Scenario	Existing Santa Fe Springs and SOI VMT	VMT Threshold (15% below Existing)
Total VMT per Service Population	33.1	28.1
Home-Based VMT Per Capita	17.2	14.6
Home-Based Work VMT per Employee	18.3	15.6

Source: Fehr & Peers., 2021

## Model Limitations and Considerations

Overall, the analysis shows the SCAG model predicts VMT per capita to decrease in the future due to increased development densities and transportation patterns. However, VMT per capita in California has continued to increase over the last several years and it is uncertain how much this trend will change over time.

Analysis of VMT per service population provides a coarse assessment of how trips, which are not all home-based, affect reported VMT efficiency. Precise methodologies for calculating this metric in traffic impact studies are still being developed and are therefore less reliable. The per service population metric includes all per capita trips, but also includes all trips into or out of the City, even if these do not originate from a home in the City. The per capita metric provides a measure of travel efficiency and helps depict whether people are traveling by vehicle more or less over time, and can also be used to compare the efficiency of different areas.

At this time, the City of Santa Fe Springs cannot demonstrate that VMT will be reduced to the degree that it meets state goals related to VMT reduction. VMT reduction depends on a variety of factors, such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute



routes that are not under the City’s jurisdiction, as well as transit provided by agencies other than the City.<sup>2</sup> Further, the California Air Resources Board (CARB), which has led much of the progress toward achieving emission reductions from the transportation sector, has not gathered sufficient data to determine the effectiveness of the assumed reductions. The feasibility and effectiveness of VMT mitigation measures such as a local or regional VMT impact bank or exchange is unknown at this time. Although the findings for the Project impacts indicate the Project is beneficial for VMT efficiency and is expected to produce VMT at a rate that would not result in a significant impact, as discussed above the model is not sensitive to many of the factors that affect VMT per person. Given that this information—and the information presented by CARB related to the trend of VMT growth across the state going up when the regional models predict that it should be decreasing—points to the uncertainty of the model in predicting VMT and, because of these uncertainties, the VMT impact is considered significant and unavoidable.

Future projects consistent with the Housing Element will not require further VMT analysis, pursuant to the tiering provisions of CEQA. However, the VMT threshold of 28.1 VMT per service population could be used for future land use amendments or other projects not within the scope of the EIR analysis. CEQA Guidelines Section 15064.3(b) allows lead agencies discretion to determine, in the context of a particular project, whether to rely on a qualitative analysis or performance-based standards. CEQA Guidelines Section 15064.7(b) allows lead agencies the discretion to select their own thresholds and allow for differences in thresholds based on context. Lead agencies also may need to balance multiple goals, such as accommodation of housing needs that may also contribute to VMT increases. Adding more impact mitigation costs to suburban housing projects may be counter to land use diversity and adequate/affordable housing goals.

## VMT Mitigation

The types of mitigation that affect VMT are those that reduce the number of single-occupant vehicles generated by the project. This can be accomplished by changing the land uses being proposed or by implementing TDM strategies. TDM strategies have been determined to be among the most effective VMT impact mitigators. TDM strategies are reductions available from certain types of project site modifications, programming, and operational changes.

The effectiveness of identified TDM strategies is based primarily on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). CAPCOA offers methodology based on preferred literature, along with methodology based on alternative literature, for each strategy. The strategies described in the table in **Appendix D** are a sample of the options most effective in areas like the City of Santa Fe Springs. For a comprehensive list of available TDM strategies, please refer to *Quantifying Greenhouse Gas Mitigation*

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<sup>2</sup> “Travel behavior is influenced by a number of factors including personal income, the costs of owning and operating a vehicle, mobility options, the time cost of travel, urbanization, and highway capacity... Therefore, new mobility pricing policies are necessary to encourage more efficient driving behavior, including legislation to remove barriers for MPOs and locals to implement pricing.” For more information, please see California Air Resources Board (CARB) 2018 (February). SB 375 Target Update Staff Report. Available: [https://www3.arb.ca.gov/cc/sb375/sb375\\_target\\_update\\_final\\_staff\\_report\\_feb2018.pdf](https://www3.arb.ca.gov/cc/sb375/sb375_target_update_final_staff_report_feb2018.pdf).



*Measures.* **Appendix D** to this document provides a comparison of the VMT reductions that can be expected from the strategies in the CAPCOA guidance with anticipated reductions as described in literature that has been published after 2010.

The CAPCOA document contains detailed equations to apply these TDM reductions given the land use type and built environment context. The percent reduction shown in **Appendix D** should not be directly applied to a project. In addition, some TDM strategies have complementary benefits reducing VMT, and need to be considered in combination, and not individually. Although SB 743 does not give guidance for assessing truck VMT and reduction strategies, there are city-level strategies that can help minimize impacts. Truck-related VMT reduction strategies are also shown in **Appendix D**.

Specific mitigation strategies need to be tailored to the project characteristics and their effectiveness needs to be analyzed and documented as part of the environmental review process to determine if impacts could be mitigated or if they would remain significant and unavoidable. Given that research on the effectiveness of TDM strategies is continuing to evolve, feasible mitigation measures should be considered based on the best data available at the time a project is being considered by the City and documented accordingly in the Transportation Study Guidelines. TDM strategies and their relationship to VMT reduction is found in **Appendix D**.



# Level of Service Evaluation

This analysis evaluates how changes in the general plan land uses could affect peak hour traffic operations in Santa Fe Springs. The analysis in this section is not required by CEQA; rather, it provides an overview of operating conditions within the City per the adopted standards in the City's previous General Plan. Peak hour traffic impacts for the project were evaluated during prevailing weekday morning (7:00 to 9:00 AM) and weekday evening (4:00 to 6:00 PM) peak periods. The following traffic scenarios were analyzed in the study:

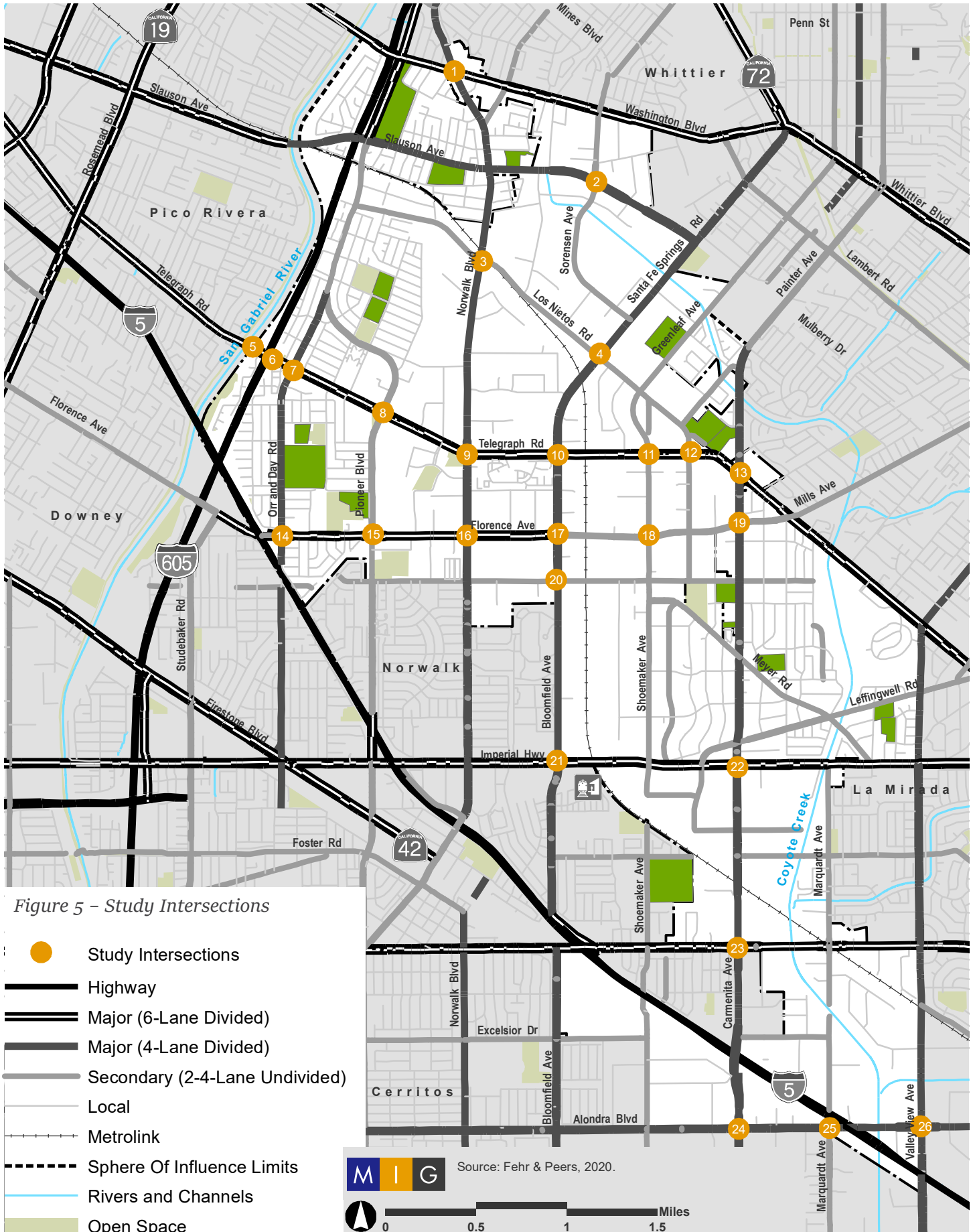
- Existing Year 2020 Conditions – The analysis of existing weekday AM and PM peak hour traffic conditions provided a basis for the assessment of future traffic conditions. Existing project traffic volumes were taken from counts collected in April 20, 2021.
- Cumulative (Future Baseline) 2040 Conditions – This scenario projected the future traffic growth and intersection operating conditions that could be expected from regional growth and the current adopted land use plan in the City of Santa Fe Springs in the future. These analyses formed the cumulative conditions basis by which project impacts were evaluated.
- Cumulative Plus-Project 2040 Conditions – This scenario identified the potential incremental impacts of the proposed project on future traffic operating conditions by forecasting the traffic expected to be generated by the updated General Plan in the City of Santa Fe Springs.

The study examined 26 intersections for each of the above traffic scenarios. The study intersection locations are illustrated in **Figure 5**.



# Study Intersections

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## Intersection Level of Service Methodology

The 26 study intersections studied in Santa Fe Springs are all signalized. The Intersection Capacity Utilization (ICU) methodology was used for the signalized intersections to determine level of service, consistent with the City's previous General Plan. The ICU methodology provides a comparison of the number of vehicles passing through an intersection during a given hour to the theoretical hourly vehicular capacity of that intersection.

A saturation flow rate of 16,000 vehicles per hour per lane for all through/turn lanes is used. The ICU calculation returns a volume-to-capacity (V/C) ratio that translates into a corresponding level of service (LOS). In urban settings, LOS D or better is commonly considered the desired minimum LOS (Santa Fe Springs General Plan, 1997). The LOS analysis is only required for the intersection of two major streets or a major and secondary street.

The City recognizes several limitations to these selected methodologies. Notably, these methods rely on isolated intersection analysis that does not consider the influence of upstream or downstream traffic conditions. Further, severe congestion in the study area often associated with queueing from nearby freeway interchanges can block or limit the amount of peak hour traffic traveling through the study intersections. As such, traditional peak hour traffic counts used in these methods may underestimate congestion because vehicles constrained by bottlenecks in the roadway network are not being counted due to vehicle queueing. These limitations may result in reported LOS results that are better than observed conditions. **Table 4** below provides a description of each LOS and the corresponding V/C ratio.

**Table 4: Intersection Capacity Utilization Level of Service Criteria**

Level of Service	V/C	Definition
A	0.00 – 0.60	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	>0.60 – 0.70	LOS B represents stable operation. An occasional approach phase is fully utilized, and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
C	>0.70 – 0.80	In LOS C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles.
D	>0.80 – 0.90	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	>0.90 – 1.00	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection, and delays may be great (up to several signal cycles).



**Table 4: Intersection Capacity Utilization Level of Service Criteria**

Level of Service	V/C	Definition
F	> 1.00	LOS F represents jammed conditions. Backups from location downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

Source: Santa Fe Springs, 1997

The City of Santa Fe Springs applies standards or criteria to determine if a project may have a substantial operational deficiency at a specific intersection. Based on these standards, an intersection in the City of Santa Fe Springs is considered to have an operational deficiency if peak hour ICU value exceeds .90 (LOS D), as shown in **Table 5** below.

**Table 5: Intersection ICU Level of Service Criteria**

Level of Service	Maximum ICU Value
C	.80
D	.90
E/F	1.00 or Above

Source: Santa Fe Springs, 1997

The City of Santa Fe Springs applies standards or criteria to determine if a project may have an operational deficiency at a specific intersection. Based on these standards, a signalized intersection in the City of Santa Fe Springs is considered to have an operational deficiency if the project related increase in the volume to capacity (v/c) ratio equals or exceeds the criteria shown in **Table 6** below.

**Table 6: Intersection ICU Level of Service Criteria**

Pre-Project Conditions		Project V/C Increase
Level of Service	Maximum ICU Value	
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E/F	0.91 or more	0.01 or more

Source: Santa Fe Springs, 1997



## Roadway Segment Level of Service Methodology

The City has identified varying levels of service criteria based on roadway classification, as shown in the table below. Average Daily Traffic (ADT) is assessed at the roadway segment level to determine level of service by facility type, as shown in **Table 7**; and level of service criteria for roadway types based on ADT, as shown in **Table 8**.

**Table 7: Average Daily Traffic (ADT) Level of Service Criteria**

Level of Service	Roadway Classification
C	Secondary and Local Arterials
D	Major Arterials
E	Regional Highways and Augmented Capacity Roadways

Source: Santa Fe Springs, 1997

**Table 8: ADT Level of Service Volumes by Facility Types**

Facility Type	LOS C	LOS D	LOS E
Major (6 lanes divided)	46,000	51,000	57,000
Major (4 lanes divided)	30,000	34,000	38,000
Secondary (2 to 4 lanes undivided)	24,000	27,000	30,000
Local (2 lanes undivided)	12,000	13,000	15,000

Source: Santa Fe Springs, 1997

In addition to the standards and criteria noted above, the City uses a separate level of service for traffic flow quality, as shown in **Table 9**. Consistent with the previous General Plan, the City's segment level of service standard is LOS F. This criterion is applied consistently for evaluating land use and circulation changes and are the basis for the General Plan circulation recommendations contained in this report.





**Table 9: Traffic Flow Quality**

Level of Service	V/C	Definition
A	0.00 – 0.60	Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one cycle
B	0.61 – 0.70	Operating speeds beginning to be affected by other traffic; between one and 10 percent of the signal cycles have one or more vehicles which wait through more than once cycle during peak period traffic
C	0.71 – 0.80	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommend ideal design standards
D	0.81 – 0.90	Tolerate operating speeds; 31 to 70 percent of the signal cycle have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as a design standard for urban areas
E	0.91 – 1.00	Capacity: the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of signal cycles have one or more vehicles which wait through more than one signal cycle during traffic periods
F	Above 1.00	Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume which occurs at LOS E.

Source: City of Santa Fe Springs, 1997

## Existing Traffic Volumes

The existing project traffic volumes were derived from traffic counts collected in April 2021. Counts were collected for all 26 study intersections during the AM and PM peak periods (6-8 AM and 4-6 PM) as well as for 12 roadway segments. Traffic volumes were used to develop intersection capacity utilization (ICU) and roadway segment vehicle-to-capacity analysis. Findings are discussed in the following sections.

## Existing Intersection Level of Service Analysis

**Table 10** summarizes the results of the analysis of the existing weekday morning and afternoon peak hour V/C ratio and corresponding LOS at each of the study intersections. As depicted in Table 10, one study intersection, Telegraph Road & I-605 SB Ramps, operates at an unacceptable LOS F during the weekday PM peak hour. The remaining study intersections operate at LOS D or better during the AM and PM peak hours. Existing LOS results are also found in **Figure 6** and **Figure 7**. Analysis volumes and intersection geometry are shown in **Appendix A**, the intersection count sheets in **Appendix B**, and detailed LOS calculations are provided in **Appendix C**.



**Table 10: Existing Intersection Level of Service**

Intersection		Peak Hour	Existing V/C	LOS
1	Washington Blvd & Norwalk Blvd	AM Weekday	0.675	B
		PM Weekday	0.830	D
2	Slauson Ave & Sorensen Ave	AM Weekday	0.592	A
		PM Weekday	0.661	B
3	Los Nietos Rd & Norwalk Blvd	AM Weekday	0.428	A
		PM Weekday	0.562	A
4	Los Nietos Rd & Santa Fe Springs Rd	AM Weekday	0.559	A
		PM Weekday	0.767	C
5	Telegraph Rd & I-605 SB Ramps	AM Weekday	0.893	D
		PM Weekday	1.030	F
6	Telegraph Rd & I-605 NB Ramps	AM Weekday	0.533	A
		PM Weekday	0.587	A
7	Telegraph Rd & Orr and Day Rd	AM Weekday	0.680	B
		PM Weekday	0.807	D
8	Telegraph Rd & Pioneer Blvd	AM Weekday	0.538	A
		PM Weekday	0.559	A
9	Telegraph Rd & Norwalk Blvd	AM Weekday	0.659	B
		PM Weekday	0.640	B
10	Telegraph Rd & Santa Fe Springs Rd	AM Weekday	0.601	B
		PM Weekday	0.619	B
11	Telegraph Rd & Shoemaker Ave	AM Weekday	0.531	A
		PM Weekday	0.551	A
12	Telegraph Rd & Painter Ave	AM Weekday	0.520	A
		PM Weekday	0.615	B
13	Telegraph Rd & Carmenita Rd	AM Weekday	0.571	A
		PM Weekday	0.736	C
14	Florence Ave & Orr and Day Rd <sup>3</sup>	AM Weekday	0.493	A
		PM Weekday	0.547	A
15	Florence Ave & Pioneer Blvd	AM Weekday	0.705	C
		PM Weekday	0.746	C
16	Florence Ave & Norwalk Blvd	AM Weekday	0.768	C

<sup>3</sup> Existing traffic counts were collected before interchange was completed in April 2021.



**Table 10: Existing Intersection Level of Service**

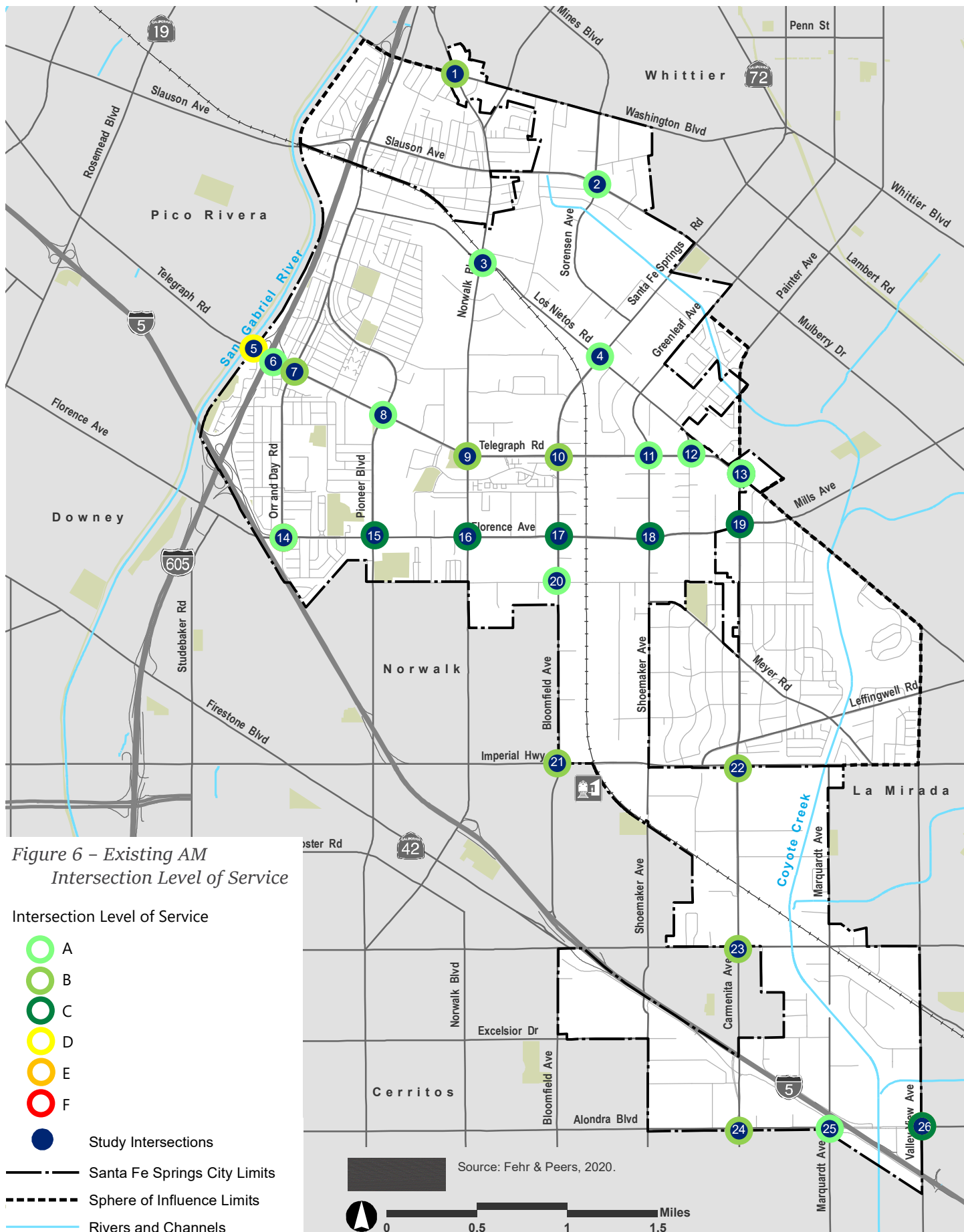
Intersection		Peak Hour	Existing V/C	LOS
17	Florence Ave & Bloomfield Ave	PM Weekday	0.832	D
		AM Weekday	0.738	C
		PM Weekday	0.761	C
18	Florence Ave & Shoemaker Ave	AM Weekday	0.724	C
		PM Weekday	0.734	C
19	Florence Ave & Carmenita Rd	AM Weekday	0.743	C
		PM Weekday	0.827	D
20	Lakeland Rd & Bloomfield Ave	AM Weekday	0.468	A
		PM Weekday	0.604	B
21	Imperial Hwy & Bloomfield Ave	AM Weekday	0.746	C
		PM Weekday	0.861	D
22	Imperial Hwy & Carmenita Rd	AM Weekday	0.761	C
		PM Weekday	0.810	D
23	Rosecrans Ave & Carmenita Rd	AM Weekday	0.707	C
		PM Weekday	0.744	C
24	Alondra Blvd & Carmenita Rd	AM Weekday	0.703	C
		PM Weekday	0.810	D
25	Alondra Blvd & Marquardt Ave	AM Weekday	0.590	A
		PM Weekday	0.812	D
26	Alondra Blvd & Valley View Ave	AM Weekday	0.740	C
		PM Weekday	0.850	D

Source: Fehr & Peers, 2021



# Existing AM Intersection LOS

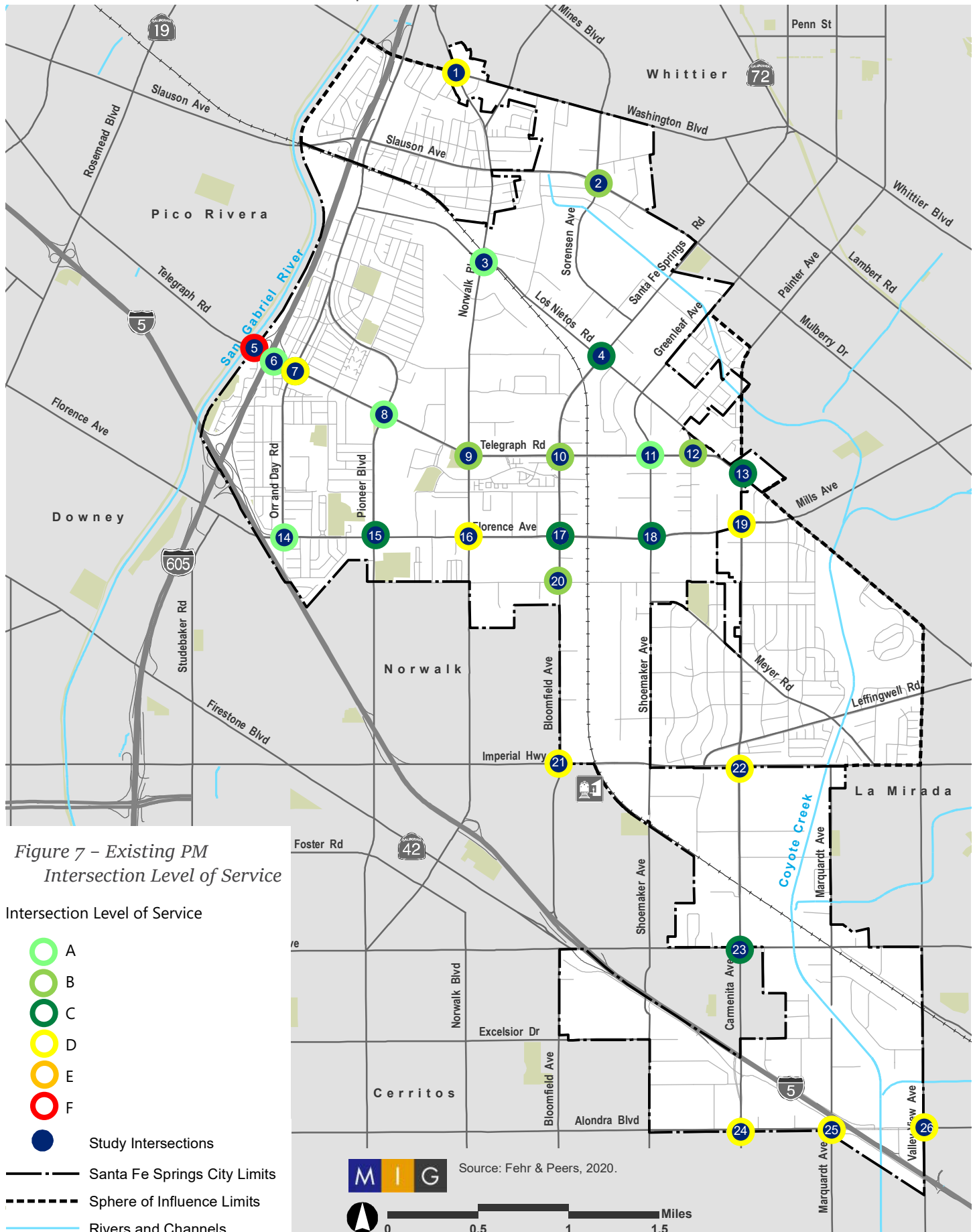
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# Existing PM Intersection LOS

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## Existing Roadway Level of Service Analysis

Roadway vehicle-to-capacity analysis was completed on selected segments within Santa Fe Springs. This evaluation shows the ratio of vehicle demand to available roadway space and is an indicator of congestion. Since transit and freight operate within the same travel lanes as general-purpose traffic, this analysis shows where transit and/or freight is potentially being delayed, and also where opportunities specific to transit and freight mobility may be present. As noted above, the City has adopted an LOS F standard for roadway segments. No segments in existing conditions meet this criterion.

**Table 11: Existing Segment Volumes and Level of Service**

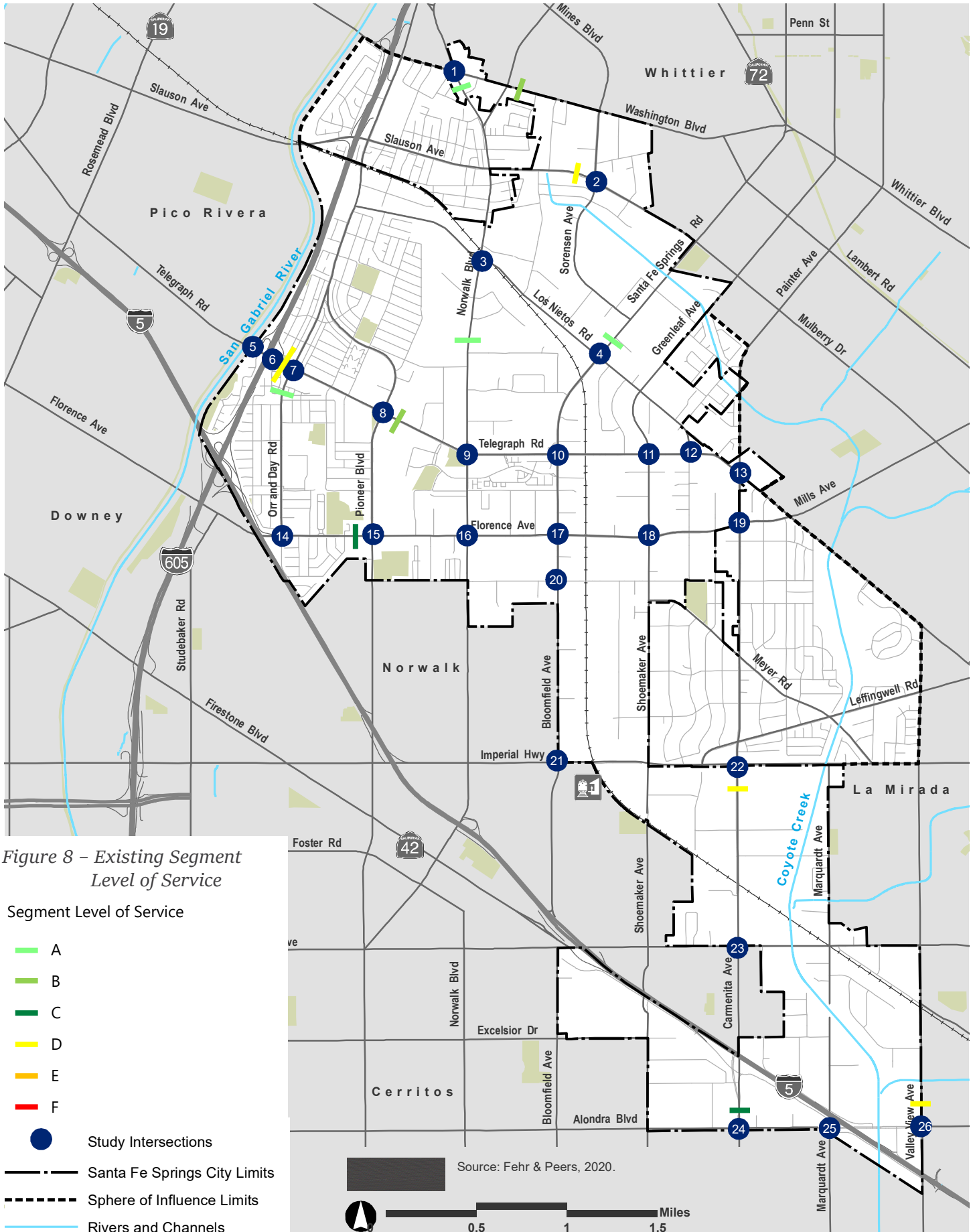
Roadway Segment	Capacity	Volume	V/C	LOS
Washington Blvd e/o Broadway	57,000	39,446	0.69	B
Norwalk Blvd s/o Washington Blvd	38,000	19,440	0.51	A
Slauson Ave w/o Sorensen Ave	38,000	32,965	0.87	D
Santa Fe Springs Rd n/o Los Nietos Rd	38,000	21,279	0.56	A
Telegraph Rd w/o Orr & Day Rd	57,000	51,390	0.90	D
Telegraph Rd e/o Pioneer Blvd	57,000	38,800	0.68	B
Orr & Day Rd s/o Telegraph Rd	38,000	11,635	0.31	A
Norwalk Blvd n/o Bell Ranch Rd	38,000	16,639	0.44	A
Florence Ave w/o Pioneer Blvd	57,000	41,795	0.73	C
Carmenita Ave s/o Imperial Hwy	38,000	32,402	0.85	D
Carmenita Ave n/o Alondra Blvd	38,000	28,784	0.76	C
Valley View Ave n/o Alondra Blvd	38,000	31,169	0.82	D

Source: Fehr & Peers, 2021



# Existing Segment LOS

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## Cumulative Intersection Level of Service Analysis

### Cumulative Base (2040) Conditions

The traffic volumes projected for Cumulative Base conditions take into account the expected changes in travel demand over existing conditions from ambient growth in existing traffic volumes due to the effects of overall regional growth and development outside the Plan Area. The annual growth for the Plan Area intersections was forecasted using the SCAG travel demand model, which can be used to forecast turning movement volumes at the study intersections.

The turning movement counts from both the existing year model and cumulative base model were compared, and the difference between the cumulative and existing model turning movements was added to the existing counts to obtain the forecast for cumulative base conditions. This calculation was done for each individual turning movement at each intersection. For turning movements where this calculation resulted in a negative number, the existing count was used.

This negative growth in some locations between the existing base and future year no project scenario is attributable to future regional transportation network improvements and transportation demand management (TDM) factors that SCAG has assumed for 2040, consistent with planned and programmed regional projects and the SCAG RTP/SCS:

- LA Metro's Eastside Transit Corridor Phase 2, an extension of the Metro L Line (Gold) further east, is planned to have two stations serving Santa Fe Springs and Whittier. This would result in a mode shift from autos to transit.
- SCAG's RTP/SCS assumes the implementation of several TDM factors, such as increased auto ownership costs, shifts to telecommuting, and further implementation of regional trip reduction strategies in the 2040 Base Model compared to the 2016 Base Model.

As shown in **Table 12**, no study roadway segments are expected to meet the LOS F standard.

As shown in **Table 13** and **Figure 9** and **Figure 10**, the following intersection is expected to exceed the City's current level of service standard of LOS D under cumulative conditions.

- Telegraph Rd & I-605 Southbound Ramps (LOS E in AM peak hour and LOS F in PM peak hour)





**Table 12: Cumulative Base Segment Volumes and Level of Service**

Roadway Segment	Capacity	Volume	V/C	LOS
Washington Blvd e/o Broadway	57,000	39,301	0.69	B
Norwalk Blvd s/o Washington Blvd	38,000	19,745	0.52	A
Slauson Ave w/o Sorensen Ave	38,000	33,047	0.87	D
Santa Fe Springs Rd n/o Los Nietos Rd	38,000	19,973	0.53	A
Telegraph Rd w/o Orr & Day Rd	57,000	52,226	0.92	E
Telegraph Rd e/o Pioneer Blvd	57,000	35,127	0.62	B
Orr & Day Rd s/o Telegraph Rd	38,000	11,893	0.31	A
Norwalk Blvd n/o Bell Ranch Rd	38,000	15,670	0.41	A
Florence Ave w/o Pioneer Blvd	57,000	41,527	0.73	C
Carmenita Ave s/o Imperial Hwy	38,000	30,413	0.80	C
Carmenita Ave n/o Alondra Blvd	38,000	25,078	0.66	B
Valley View Ave n/o Alondra Blvd	38,000	28,338	0.75	C

Source: Fehr & Peers, 2021



**Table 13: Existing, Cumulative Base, and Cumulative With-Project Level of Service**

Intersection		Peak Hour	Existing		Cumulative		Cumulative- Plus-Project		Compared to Cumulative Base	Compared to Existing
			V/C	LOS	V/C	LOS	V/C	LOS		
1	Washington Blvd & Norwalk Blvd	AM Weekday	0.675	B	0.732	C	0.724	C	-0.008	0.049
		PM Weekday	0.830	D	0.840	D	0.797	C	-0.043	-0.033
2	Slauson Ave & Sorensen Ave	AM Weekday	0.592	A	0.518	A	0.529	A	0.011	-0.063
		PM Weekday	0.661	B	0.668	B	0.664	B	-0.004	0.003
3	Los Nietos Rd & Norwalk Blvd	AM Weekday	0.428	A	0.442	A	0.489	A	0.047	0.061
		PM Weekday	0.562	A	0.514	A	0.528	A	0.014	-0.034
4	Los Nietos Rd & Santa Fe Springs Rd	AM Weekday	0.559	A	0.562	A	0.605	B	0.043	0.046
		PM Weekday	0.767	C	0.682	B	0.742	C	0.060	-0.025
5	Telegraph Rd & I-605 SB Ramps	AM Weekday	0.893	D	0.979	E	0.957	E	-0.022	0.064
		PM Weekday	1.030	F	1.041	F	1.041	F	0.000	0.011
6	Telegraph Rd & I-605 NB Ramps	AM Weekday	0.533	A	0.561	A	0.558	A	-0.003	0.025
		PM Weekday	0.587	A	0.685	B	0.665	B	-0.020	0.078
7	Telegraph Rd & Orr and Day Rd	AM Weekday	0.680	B	0.878	D	0.826	D	-0.052	0.146
		PM Weekday	0.807	D	0.838	D	0.838	D	0.000	0.031
8	Telegraph Rd & Pioneer Blvd	AM Weekday	0.538	A	0.511	A	0.550	A	0.039	0.012
		PM Weekday	0.559	A	0.549	A	0.602	B	0.053	0.043
9	Telegraph Rd & Norwalk Blvd	AM Weekday	0.659	B	0.632	B	0.720	C	0.088	0.061
		PM Weekday	0.640	B	0.665	B	0.615	B	-0.050	-0.025
10	Telegraph Rd & Santa Fe Springs Rd	AM Weekday	0.601	B	0.624	B	0.614	B	-0.010	0.013
		PM Weekday	0.619	B	0.606	B	0.630	B	0.024	-0.011
11	Telegraph Rd & Shoemaker Ave	AM Weekday	0.531	A	0.454	A	0.491	A	0.037	-0.040
		PM Weekday	0.551	A	0.497	A	0.510	A	0.013	-0.041



**Table 13: Existing, Cumulative Base, and Cumulative With-Project Level of Service**

Intersection		Peak Hour	Existing		Cumulative		Cumulative- Plus-Project		Compared to Cumulative Base	Compared to Existing
			V/C	LOS	V/C	LOS	V/C	LOS		
12	Telegraph Rd & Painter Ave	AM Weekday	0.522	A	0.479	A	0.494	A	0.015	-0.028
		PM Weekday	0.615	B	0.558	A	0.608	B	0.050	0.007
13	Telegraph Rd & Carmenita Rd	AM Weekday	0.571	A	0.557	A	0.548	A	-0.009	-0.023
		PM Weekday	0.736	C	0.617	B	0.676	B	0.059	-0.060
14	Florence Ave & Orr and Day Rd	AM Weekday	0.493	A	0.515	A	0.532	A	0.017	0.039
		PM Weekday	0.547	A	0.536	A	0.559	A	0.023	0.012
15	Florence Ave & Pioneer Blvd	AM Weekday	0.705	C	0.653	B	0.717	C	0.064	0.012
		PM Weekday	0.746	C	0.752	C	0.777	C	0.025	0.031
16	Florence Ave & Norwalk Blvd	AM Weekday	0.768	C	0.761	C	0.737	C	-0.024	-0.031
		PM Weekday	0.832	D	0.799	C	0.817	D	0.018	-0.015
17	Florence Ave & Bloomfield Ave	AM Weekday	0.738	C	0.684	B	0.752	C	0.068	0.014
		PM Weekday	0.761	C	0.730	C	0.766	C	0.036	0.005
18	Florence Ave & Shoemaker Ave	AM Weekday	0.724	C	0.672	B	0.710	C	0.038	-0.014
		PM Weekday	0.734	C	0.683	B	0.671	B	-0.012	-0.063
19	Florence Ave & Carmenita Rd	AM Weekday	0.743	C	0.767	C	0.728	C	-0.039	-0.015
		PM Weekday	0.827	D	0.846	D	0.833	D	-0.013	0.006
20	Lakeland Rd & Bloomfield Ave	AM Weekday	0.468	A	0.528	A	0.500	A	-0.028	0.032
		PM Weekday	0.604	B	0.610	B	0.600	A	-0.010	-0.004
21	Imperial Hwy & Bloomfield Ave	AM Weekday	0.746	C	0.688	B	0.711	C	0.023	-0.035
		PM Weekday	0.861	D	0.759	C	0.771	C	0.012	-0.090
22	Imperial Hwy & Carmenita Rd	AM Weekday	0.761	C	0.736	C	0.750	C	0.014	-0.011
		PM Weekday	0.810	D	0.732	C	0.764	C	0.032	-0.046



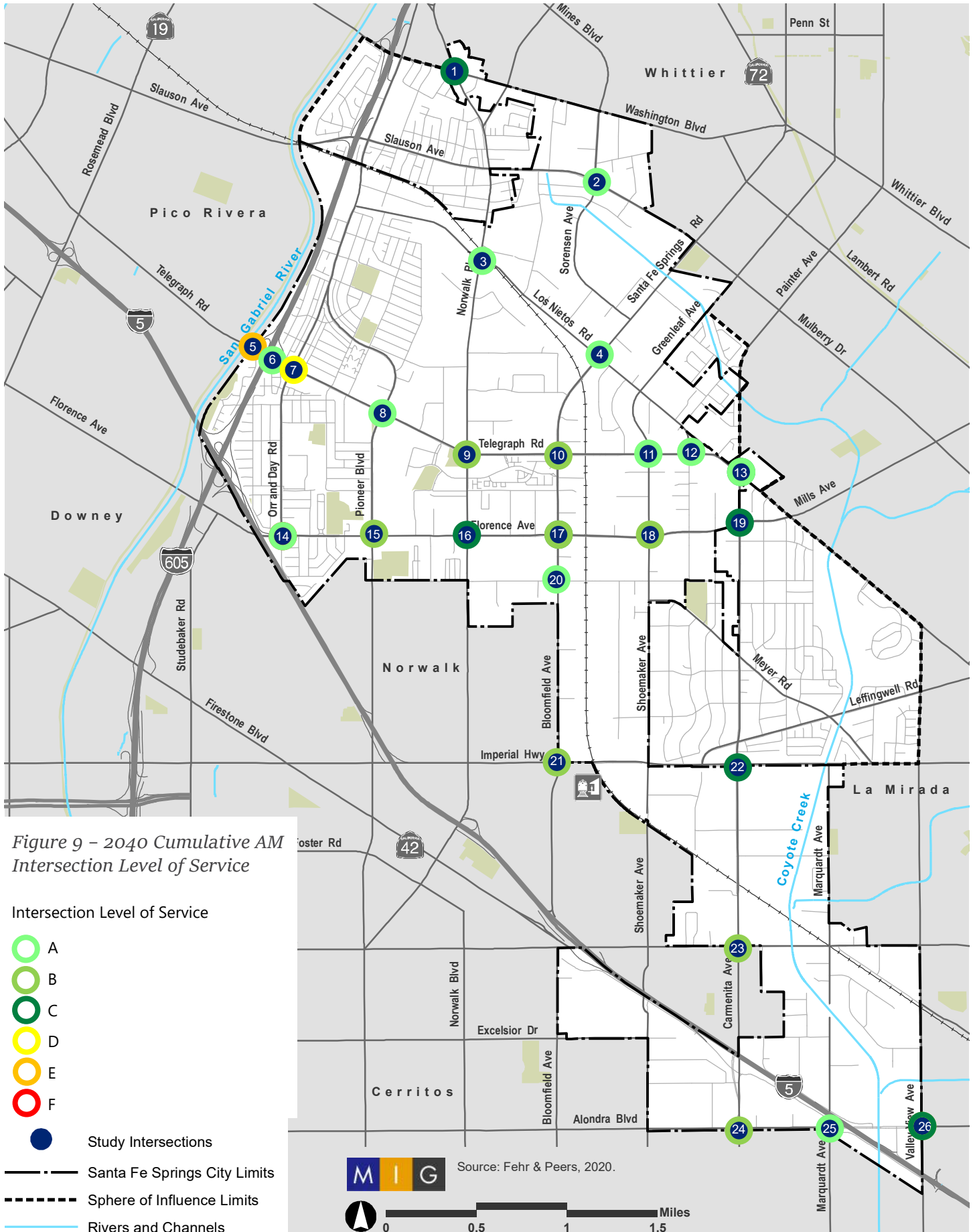
**Table 13: Existing, Cumulative Base, and Cumulative With-Project Level of Service**

Intersection		Peak Hour	Existing V/C	LOS	Cumulative V/C	LOS	Cumulative- Plus-Project V/C	LOS	Compared to Cumulative Base	Compared to Existing
23	Rosecrans Ave & Carmenita Rd	AM Weekday	0.707	C	0.675	B	0.711	C	0.036	0.004
		PM Weekday	0.744	C	0.730	C	0.746	C	0.016	0.002
24	Alondra Blvd & Carmenita Rd	AM Weekday	0.703	C	0.609	B	0.616	B	0.007	-0.087
		PM Weekday	0.810	D	0.734	C	0.902	E	0.168	0.092
25	Alondra Blvd & Marquardt Ave	AM Weekday	0.590	A	0.510	A	0.564	A	0.054	-0.026
		PM Weekday	0.812	D	0.698	B	0.770	C	0.072	-0.042
26	Alondra Blvd & Valley View Ave	AM Weekday	0.740	C	0.702	C	0.708	C	0.006	-0.032
		PM Weekday	0.850	D	0.796	C	0.828	D	0.032	-0.022



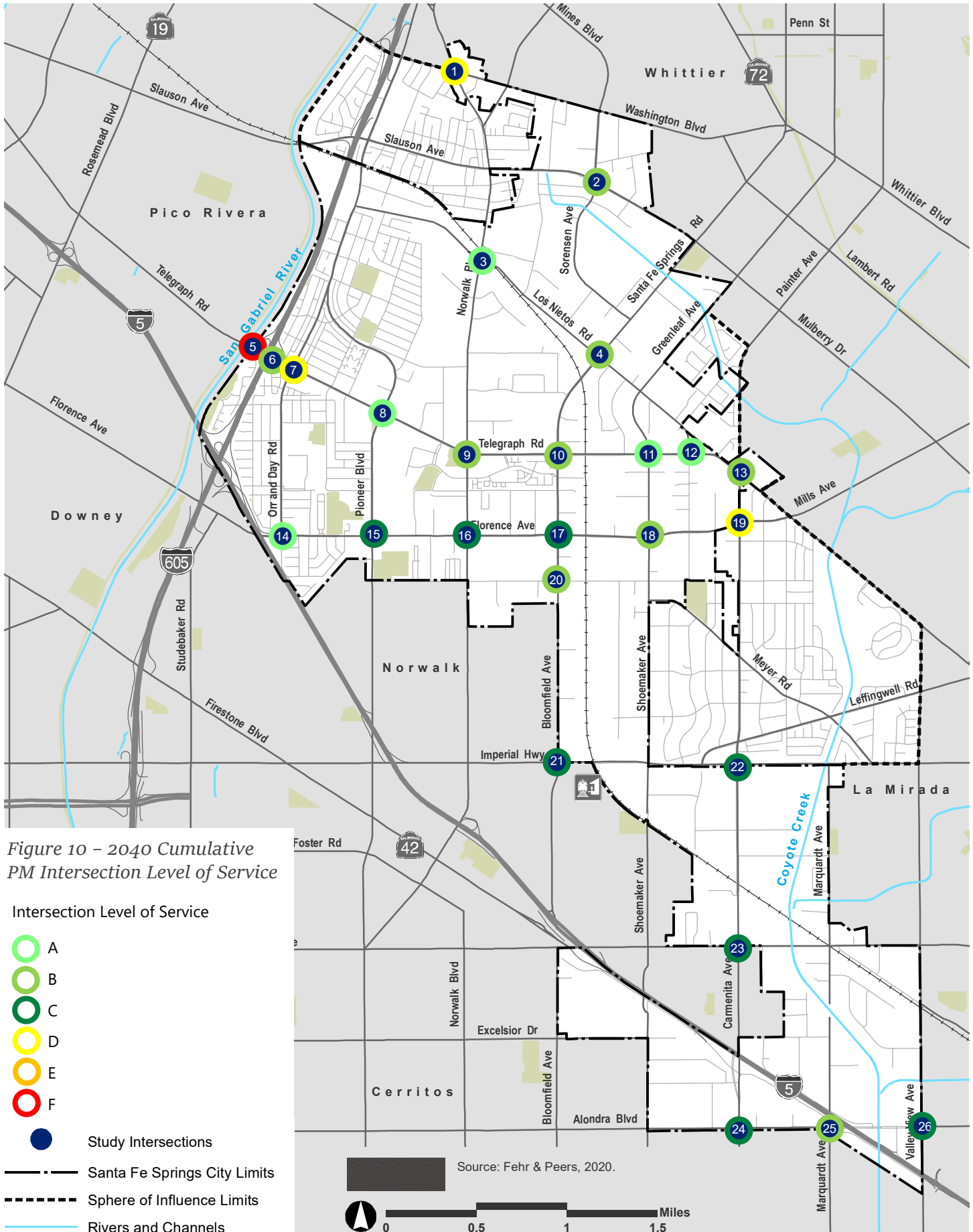
# 2040 Cumulative AM Intersection LOS

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



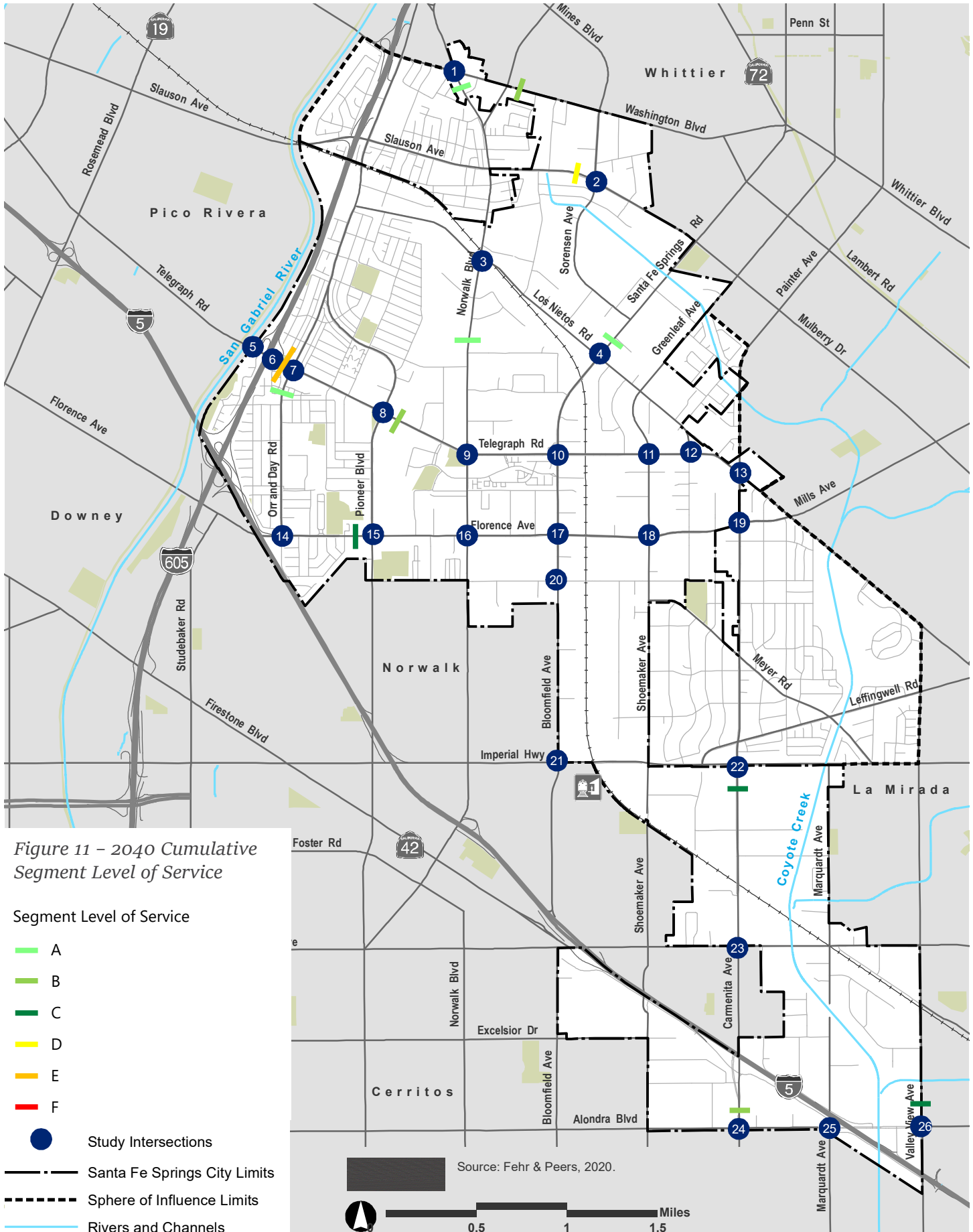
# 2040 Cumulative PM Intersection LOS

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



# 2040 Cumulative Segment LOS

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN





## Cumulative Plus-Project (2040) Conditions

The same method used to calculate Cumulative intersection volumes was used for the Cumulative Plus-Project volumes, except the output from the Cumulative Plus-Project model run was compared to the existing model run to obtain the travel volume growth. As with the Cumulative scenario, for turning movements where this calculation resulted in a negative number, the existing count was used. The Cumulative Plus-Project volumes were analyzed using ICU methodologies to determine change in V/C and LOS for the study intersections.

As shown in **Figure 12** and **Figure 13**, and Table 13, the following two intersections are expected to operate at LOS E or F during their AM or PM peak hours under Cumulative Plus-Project conditions.

- Telegraph Road & I-605 Southbound Ramps (LOS E in AM peak hour and LOS F in PM peak hour)
- Alondra Boulevard & Carmenita Road (LOS E in PM peak hour)

As shown in **Table 14** and **Figure 14**, no study roadway segments are expected to meet the LOS F standard.

**Table 14: Cumulative Plus-Project Segment Volumes and Level of Service**

Roadway Segment	Capacity	Volume	V/C	LOS
Washington Blvd e/o Broadway	57,000	39,716	0.70	B
Norwalk Blvd s/o Washington Blvd	38,000	20,243	0.53	A
Slauson Ave w/o Sorensen Ave	38,000	33,401	0.88	D
Santa Fe Springs Rd n/o Los Nietos Rd	38,000	20,638	0.54	A
Telegraph Rd w/o Orr & Day Rd	57,000	53,069	0.93	E
Telegraph Rd e/o Pioneer Blvd	57,000	36,796	0.65	B
Orr & Day Rd s/o Telegraph Rd	38,000	12,238	0.32	A
Norwalk Blvd n/o Bell Ranch Rd	38,000	16,757	0.44	A
Florence Ave w/o Pioneer Blvd	57,000	43,254	0.76	C
Carmenita Ave s/o Imperial Hwy	38,000	31,031	0.82	D
Carmenita Ave n/o Alondra Blvd	38,000	26,707	0.70	B
Valley View Ave n/o Alondra Blvd	38,000	28,550	0.75	C

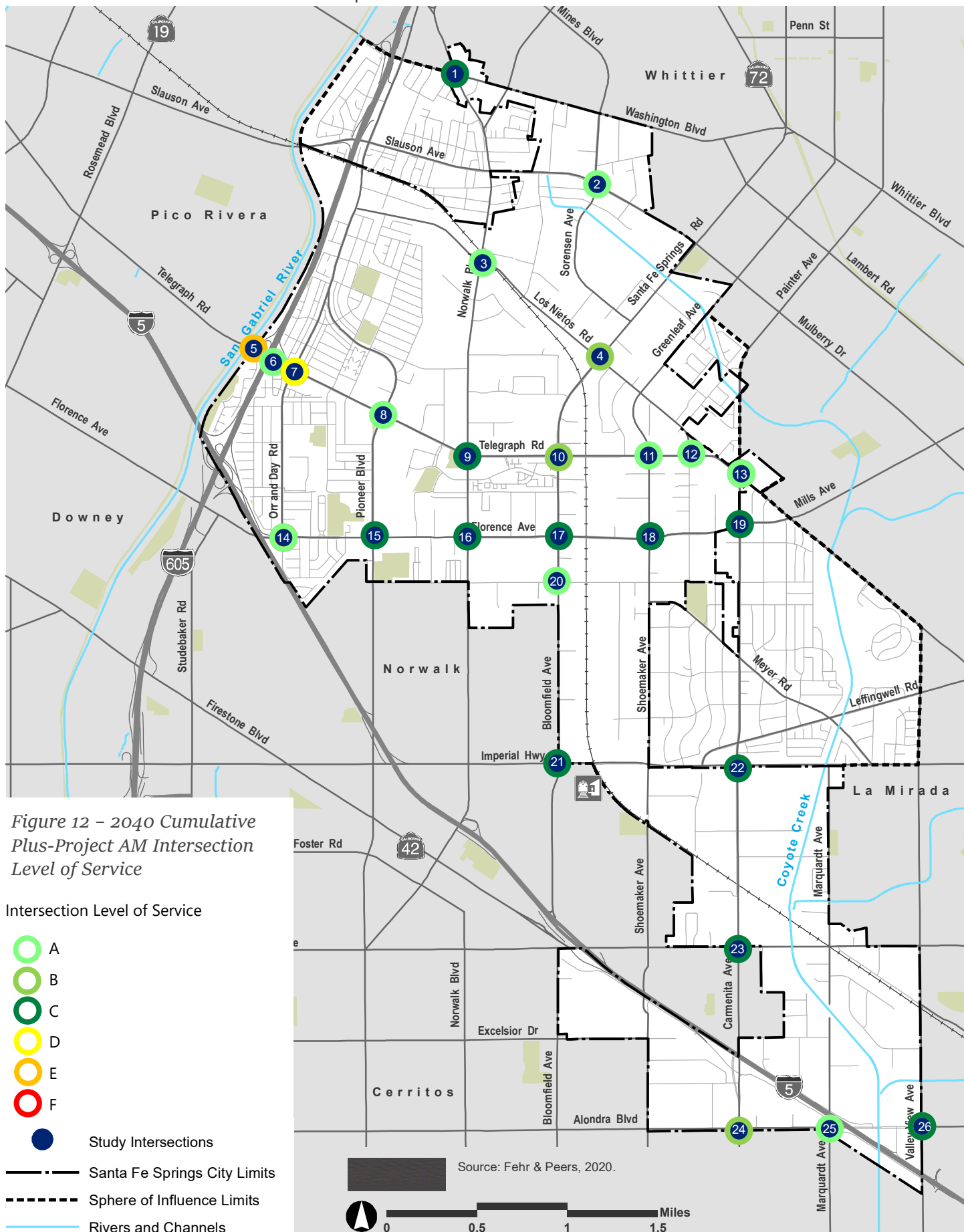
Source: Fehr & Peers, 2021





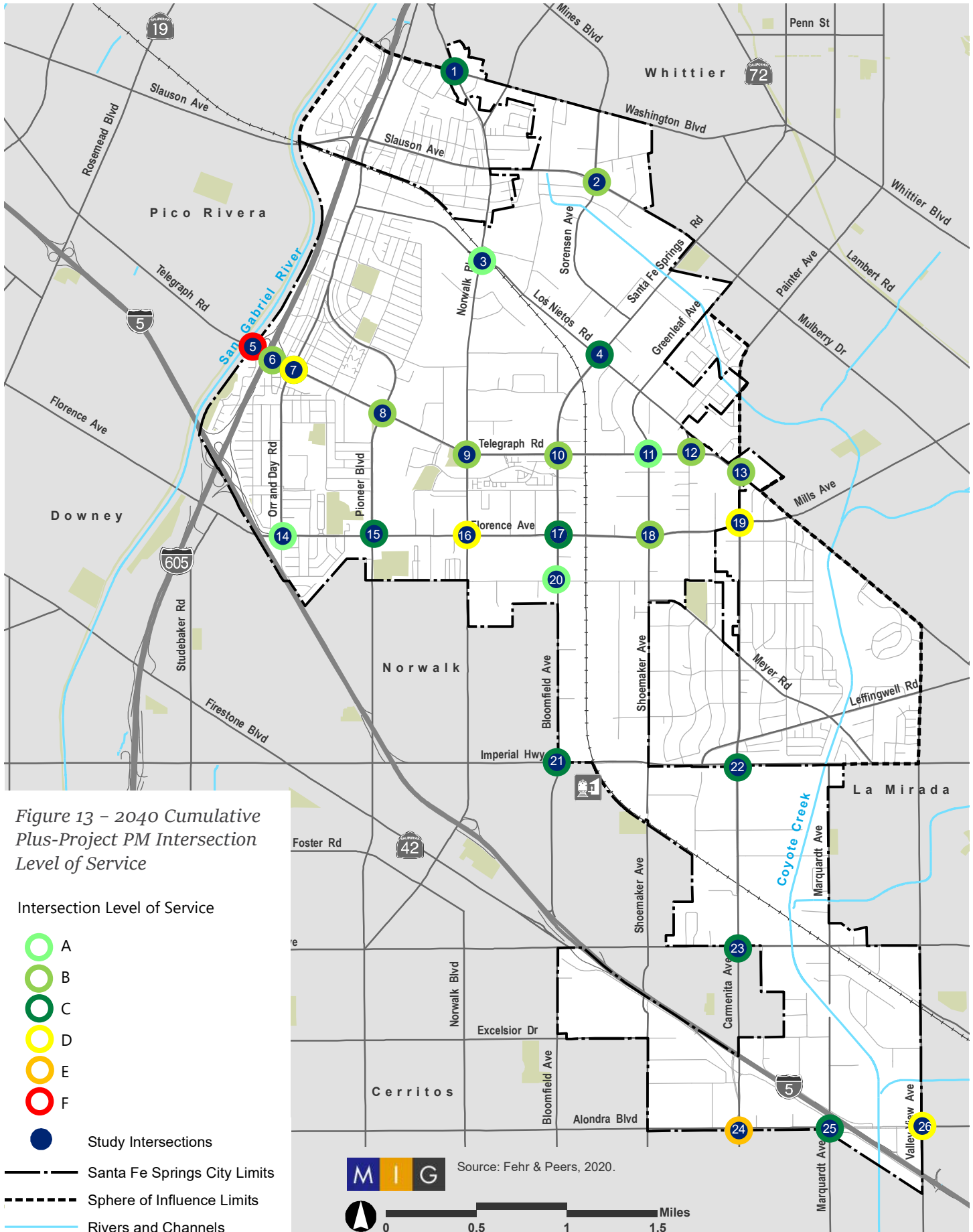
# 2040 Cumulative Plus-Project AM Intersection LOS

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



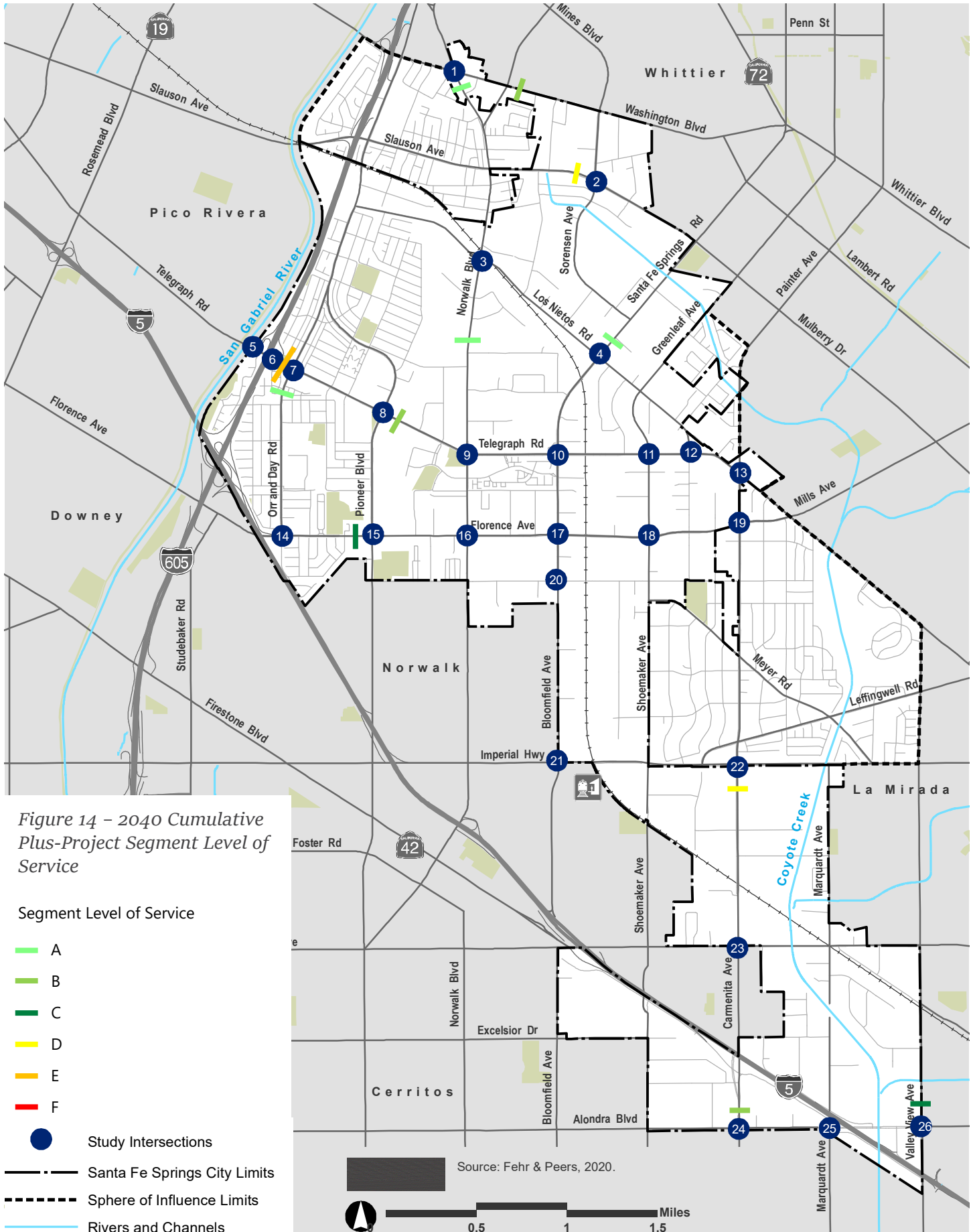
# 2040 Cumulative Plus-Project PM Intersection LOS

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



# 2040 Cumulative Plus-Project Segment LOS

RE-IMAGINE SANTA FE SPRINGS | 2040 GENERAL PLAN



# Mitigation

The proposed Santa Fe Springs General Plan will result in intersection level of service that will exceed the City's current adopted level of service standards at two study intersections. Several mitigation measures can be implemented in Santa Fe Springs in an effort to reduce the impacts of new development throughout the Plan Area, including a reduction in cumulative with-project traffic volumes due to the implementation of TDM strategies. These include improvements to pedestrian, bicycle, and transit infrastructure that will increase the safety and attractiveness of these modes. TDM strategies are found in **Appendix D**.

The City of Santa Fe Springs will evaluate updates to their adopted level of service standards at a later date which may change the number and location of any intersections noted as deficient. As noted previously, the City is currently using previously adopted Los Angeles County standards which are no longer used by Los Angeles County under their new guidelines which only specify performance thresholds for only VMT impacts. The two intersections noted as deficient will need physical improvements to meet adopted standards.

## Intersection Improvements

Based on Santa Fe Springs' level of service standards for intersections, two of the 26 intersections analyzed are projected to have operational deficiencies. Improvement measures were developed to alleviate the operational deficiencies through the following steps:

**Intersection 5 – Telegraph Road & I-605 SB Ramps** – This intersection exceeds the LOS standard during the AM peak period under existing and cumulative conditions. This interchange, including both the southbound and northbound ramps at Telegraph Road, is expected to be improved as part of LA Metro's I-605 Corridor Improvements Project, which is currently in the environmental and alternatives development phase. In addition, the City has had internal discussions regarding adding the bridge over the San Gabriel River, which would add additional roadway capacity, though this project is not currently funded.

**Intersection 24 – Carmenita Road & Alondra Boulevard** – This intersection exceeds the LOS standard during the PM peak period under cumulative conditions. This area is expected to experience an increase in employment in the next 20 years, contributing to the intersection deficiency. The City has had discussions regarding the addition of eastbound and westbound travel lanes on Alondra Boulevard between Shoemaker Avenue and Marquardt Avenue, which would add additional roadway capacity. Additional analysis is needed to determine if the additional capacity would mitigate the intersection deficiency. This project is not funded and is not currently programmed on any City project lists.



## Other Proposed Improvement Options

Other mitigation measures that can help reduce the impact of development from growth and the Land Use Plan are identified in the following paragraphs. As noted above, physical improvements have been identified for intersections that do not result in impacts below a level of significance. This analysis also includes an SB-743 compliant VMT analysis that finds less than significant impacts for the General Plan based on the project's VMT and impact on regional VMT. As such, these measures represent additional actions the City can take to minimize trips and VMT to achieve local, regional, and state goals.

### Bicycle Network

The City adopted an Active Transportation Plan in January 2021 that sets a vision for bicycle and pedestrian mobility and accessibility throughout the city. This mode shift results in people driving less and thus reduces VMT. Implementing the bicycle improvements identified through the City's recent planning efforts, including installing bicycle lanes and routes, will provide more opportunities for people to bike instead of drive for shorter distance trips in the City.

### Pedestrian Network

Crossings on many of the arterial roads can be challenging due to the distance between signalized intersections with a crosswalk, the number of lanes, and vehicle speeds. Parts of Telegraph Road, east of Norwalk Boulevard, have crossing distances of 1,000 feet and more which can lead people to jaywalk instead of backtracking and crossing at a signalized intersection. This situation is prevalent throughout the City on major arterials, where a majority of overall collisions involving injuries or fatalities occur.

Currently, pedestrian sidewalks are generally present on both sides of the roadway in residential areas in the western and eastern parts of the City. However, some areas may only have a concrete sidewalk on one side of the roadway, with a dirt path or no space for pedestrians to walk in some cases, like in the northern and southern parts of the City. Industrial areas generally do not provide sidewalks, or else they are located on only one side of the roadway.

As the City experiences growth over the next 20 years the number of vehicles on the road is also expected to increase, creating a challenging pedestrian environment. The City should continue to construct sidewalks on a regular basis and as part of new development and of redeveloping areas. Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive.

### Transit Expansion

The City of Santa Fe Springs has several bus transit lines that provide transit service in the City. Currently the headway of all these routes except Route 62 between Downtown LA and Hawaiian Gardens is more than 20 minutes. Reducing headway can increase demand for public transit. From existing Norwalk Transit routes, Route 1, Route 4, and route 7 with 25 to 40 minutes headways have the highest ridership across the City. These routes have relatively lower headways compared to the other routes. It is recommended to



conduct an origin-destination study and evaluate latent demand for various transit routes and reduce headways to attract more riders and increase the ridership.

Metro is considering a plan to build a rail station at the northern part of the City near Norwalk/Washington Boulevard as part of the Gold Line Extension. This line would connect the City directly to East Los Angeles and through Gold Line to Downtown Los Angeles. It provides significant opportunity for residents and workers to access transit.

This rail corridor is anticipated to serve commuters in a high travel demand corridor by providing relief to the constrained transportation systems currently available to these communities. The City should actively pursue and petition for this expansion of the Gold Line. The addition of a major transit stop at the Norwalk Station would provide additional choices for viable transportation and is likely to reduce the number of vehicle trips generated.

### **TDM Measures**

Transportation Demand Management (TDM) measures can be applied to reduce the number of vehicles using the road network. The local government and employers in Santa Fe Springs can develop programs and incentives to implement the TDM strategies located in **Appendix D**. More detailed TDM strategies can be found in the *Transportation Study Guidelines*.

### **Freight Network**

Freight mobility should be considered in all future projects, ensuring adequate turning space is provided during intersection reconstruction.

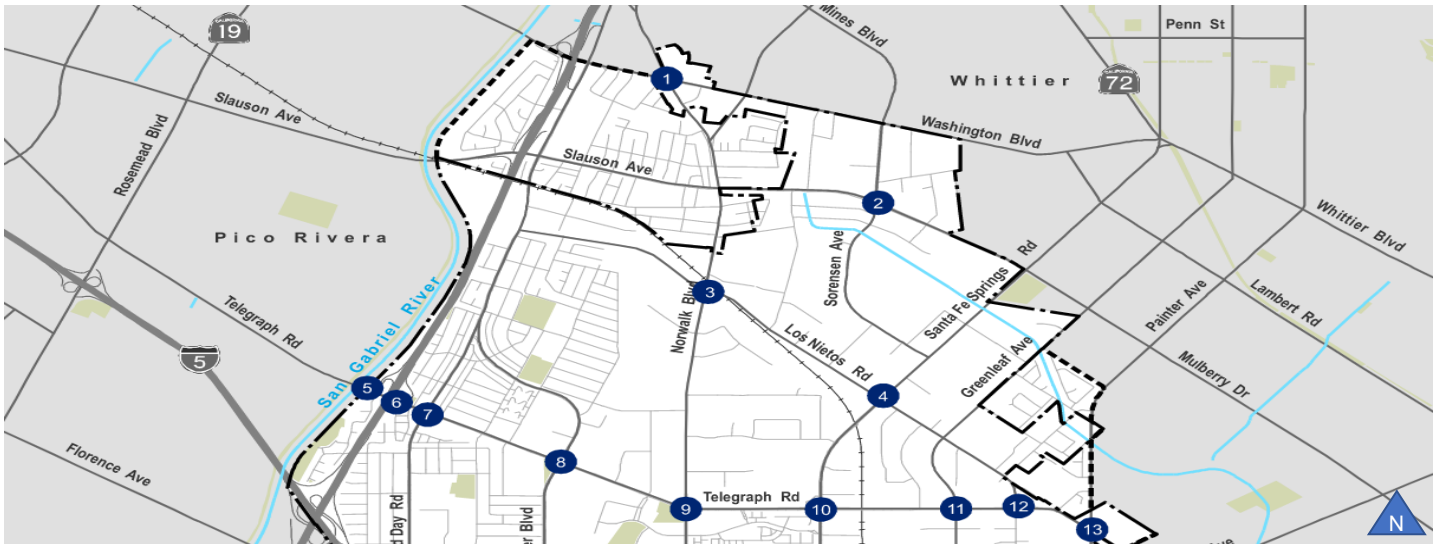
While TDM strategies usually focus on reducing passenger VMT and consequently reducing congestion and emission, there are strategies to reduce emissions, Green House Gas (GHG) and congestion impacts related truck traffic. Freight Greenhouse Gas Reduction Best Practices are Presented in **Appendix E**.



# Appendix A:

## Turning Movement Volume Figures





<p><b>1. Norwalk Blvd/ Washington Blvd</b></p>	<p><b>2. Sorensen Ave/Slauson Ave</b></p>	<p><b>3. Norwalk Ave/Los Nietos Rd</b></p>	<p><b>4. Santa Fe Springs Rd/Los Nietos Rd</b></p>
<p><b>5. I-605 SB Ramps/Telegraph Rd</b></p>	<p><b>6. I-605 NB Ramps/Telegraph Rd</b></p>	<p><b>7. Orr and Day Rd/Telegraph Rd</b></p>	<p><b>8. Pioneer Blvd/Telegraph Rd</b></p>
<p><b>9. Norwalk Blvd/Telegraph Rd</b></p>	<p><b>10. Santa Fe Springs Rd/Telegraph Rd</b></p>	<p><b>11. Shoemaker Ave/Telegraph Rd</b></p>	<p><b>12. Painter Ave/Telegraph Rd</b></p>

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume



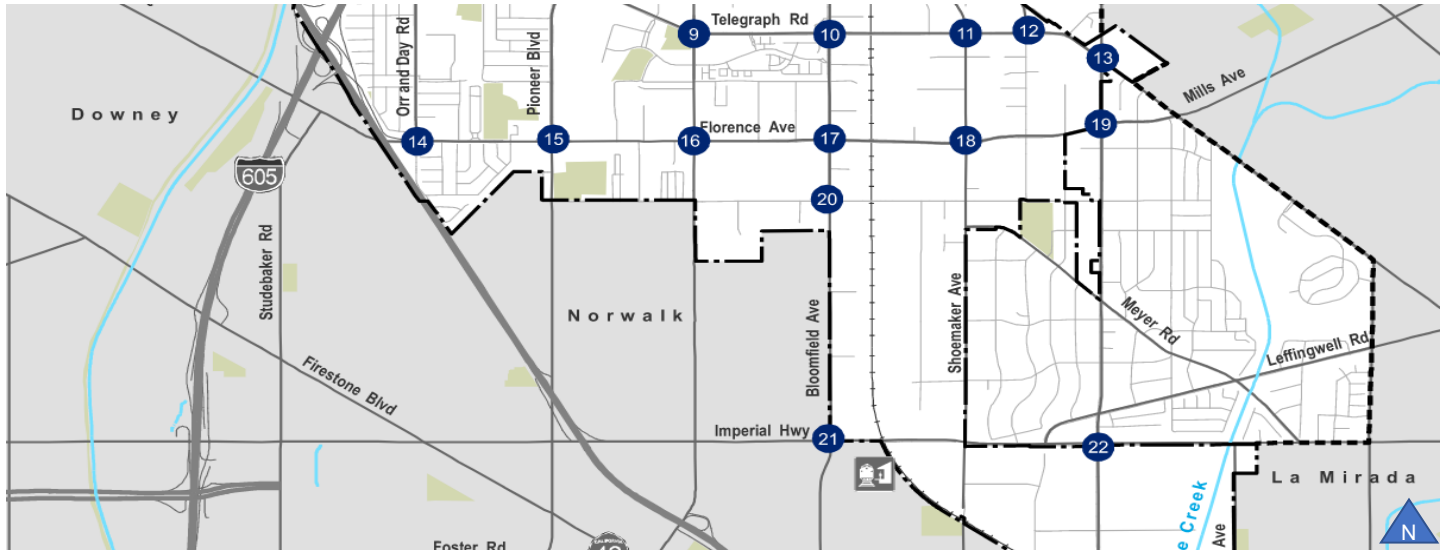
Lane Configuration

Appendix A1

## Peak Hour Traffic Volumes and Lane Configurations Existing Base Scenario Santa Fe Springs General Plan







<b>13. Carmenita Rd/Telegraph Rd</b> 	<b>14. Orr and Day Rd/Florence Rd</b> 	<b>15. Pioneer Blvd/Florence Ave</b> 	<b>16. Norwalk Blvd/Florence Ave</b> 
<b>17. Bloomfield Ave/Florence Ave</b> 	<b>18. Shoemaker Ave/Florence Ave</b> 	<b>19. Carmenita Rd/Florence Ave</b> 	<b>20. Bloomfield Ave/Lakeland Rd</b> 
<b>21. Bloomfield Ave/Imperial Highway</b> 	<b>22. Carmenita Rd/Imperial Highway</b> 		

#### Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume



Lane Configuration

Appendix A1

## Peak Hour Traffic Volumes and Lane Configurations Existing Base Scenario Santa Fe Springs General Plan





23. Carmenita Rd/Rosecrans Ave	24. Carmenita Rd/Alondra Blvd	25. Marquardt Ave/Alondra Blvd	26. Valley View Ave/Alondra Blvd
<p> <b>Northbound (Carmenita Rd):</b>            380 (414)            1,046 (1,006)            54 (43)         </p> <p> <b>Southbound (Carmenita Rd):</b>            26 (162)            600 (469)            119 (113)         </p> <p> <b>Eastbound (Rosecrans Ave):</b>            303 (333)            496 (524)            53 (65)         </p> <p> <b>Westbound (Rosecrans Ave):</b>            57 (98)            857 (1,162)            138 (133)         </p>	<p> <b>Northbound (Carmenita Rd):</b>            305 (291)            482 (637)            168 (131)         </p> <p> <b>Southbound (Carmenita Rd):</b>            179 (238)            504 (633)            183 (171)         </p> <p> <b>Eastbound (Alondra Blvd):</b>            248 (300)            366 (492)            38 (65)         </p> <p> <b>Westbound (Alondra Blvd):</b>            48 (52)            517 (659)            78 (118)         </p>	<p> <b>Northbound (Marquardt Ave):</b>            17 (21)            59 (71)            48 (73)         </p> <p> <b>Southbound (Marquardt Ave):</b>            72 (78)            752 (753)            329 (285)         </p> <p> <b>Eastbound (Alondra Blvd):</b>            8 (9)            422 (637)         </p> <p> <b>Westbound (Alondra Blvd):</b>            84 (146)            64 (93)            312 (563)         </p>	<p> <b>Northbound (Valley View Ave):</b>            497 (478)            659 (662)            74 (111)         </p> <p> <b>Southbound (Valley View Ave):</b>            57 (100)            766 (578)            331 (206)         </p> <p> <b>Eastbound (Alondra Blvd):</b>            207 (331)            471 (894)            66 (77)         </p> <p> <b>Westbound (Alondra Blvd):</b>            126 (84)            657 (830)            225 (235)         </p>

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume

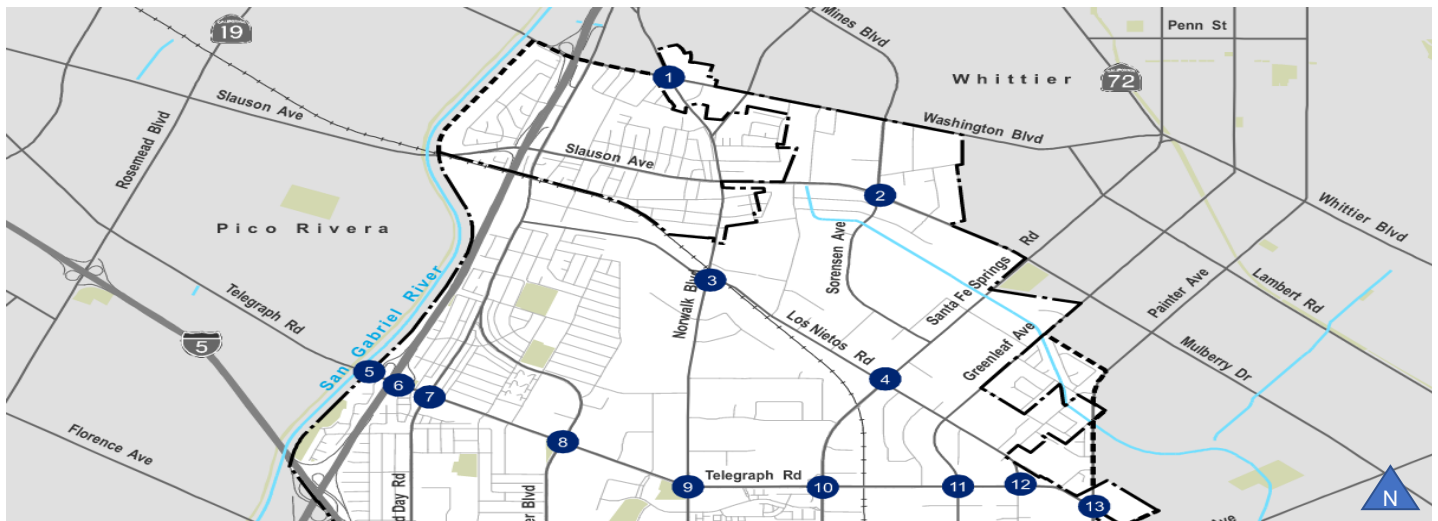


Lane Configuration

Appendix A1

## Peak Hour Traffic Volumes and Lane Configurations Existing Base Scenario Santa Fe Springs General Plan





1. Norwalk Blvd/ Washington Blvd	2. Sorensen Ave/Slauson Ave	3. Norwalk Ave/Los Nietos Rd	4. Santa Fe Springs Rd/Los Nietos Rd
<p>Washington Blvd</p> <p>Norwalk Blvd</p> <p>72 (122) 1,010 (1,114) 77 (201)</p> <p>87 (105) 530 (434) 173 (155)</p> <p>122 (263) 1,072 (1,169) 56 (71)</p> <p>184 (340) 261 (554) 33 (51)</p>	<p>Slauson Ave</p> <p>Sorensen Ave</p> <p>168 (203) 810 (897) 162 (79)</p> <p>104 (115) 296 (221) 65 (181)</p> <p>32 (52) 781 (845) 36 (53)</p> <p>82 (96) 177 (405) 15 (45)</p>	<p>Los Nietos Rd</p> <p>Norwalk Ave</p> <p>65 (59) 138 (79) 178 (80)</p> <p>44 (101) 546 (533) 58 (65)</p> <p>53 (77) 180 (603) 77 (78)</p>	<p>Los Nietos Rd</p> <p>Santa Fe Springs Rd</p> <p>33 (44) 204 (311) 165 (81)</p> <p>35 (73) 653 (646) 98 (138)</p> <p>109 (233) 265 (335) 119 (64)</p> <p>91 (138) 471 (827) 43 (62)</p>
5. I-605 SB Ramps/Telegraph Rd	6. I-605 NB Ramps/Telegraph Rd	7. Orr and Day Rd/Telegraph Rd	8. Pioneer Blvd/Telegraph Rd
<p>Telegraph Rd</p> <p>I-605 SB Ramps</p> <p>227 (208) 1,229 (931) 20 (72)</p> <p>34 (63) 10 (10) 140 (102)</p> <p>1,086 (1,224) 676 (1,050) 12 (11)</p> <p>31 (21) 42 (42) 21 (11)</p>	<p>Telegraph Rd</p> <p>I-605 NB Ramps</p> <p>102 (228) 1,828 (1,307) 42 (52)</p> <p>292 (228) 1,486 (1,885) 10 (11)</p> <p>53 (51) 52 (30) 15 (21)</p>	<p>Telegraph Rd</p> <p>Orr and Day Rd</p> <p>112 (163) 1,432 (983) 299 (112)</p> <p>590 (552) 64 (287) 32 (60)</p> <p>11 (12) 959 (1,217) 57 (81)</p> <p>138 (247) 106 (275) 106 (114)</p>	<p>Telegraph Rd</p> <p>Pioneer Blvd</p> <p>52 (35) 1,230 (843) 169 (167)</p> <p>25 (55) 227 (184) 32 (83)</p> <p>10 (10) 961 (1,176) 55 (138)</p> <p>22 (106) 126 (324) 77 (94)</p>
9. Norwalk Blvd/Telegraph Rd	10. Santa Fe Springs Rd/Telegraph Rd	11. Shoemaker Ave/Telegraph Rd	12. Painter Ave/Telegraph Rd
<p>Telegraph Rd</p> <p>Norwalk Blvd</p> <p>214 (105) 795 (796) 35 (184)</p> <p>171 (199) 618 (547) 73 (80)</p> <p>36 (57) 747 (729) 70 (202)</p> <p>68 (163) 402 (593) 122 (96)</p>	<p>Telegraph Rd</p> <p>Santa Fe Springs Rd</p> <p>186 (64) 623 (669) 11 (72)</p> <p>130 (259) 733 (608) 48 (85)</p> <p>131 (65) 677 (620) 65 (76)</p> <p>61 (101) 477 (856) 68 (95)</p>	<p>Telegraph Rd</p> <p>Shoemaker Ave</p> <p>76 (75) 456 (770) 104 (112)</p> <p>79 (56) 259 (311) 23 (30)</p> <p>34 (31) 648 (455) 52 (35)</p> <p>97 (122) 233 (402) 31 (67)</p>	<p>Telegraph Rd</p> <p>Painter Ave</p> <p>45 (66) 402 (766) 42 (44)</p> <p>34 (33) 111 (84) 184 (298)</p> <p>277 (293) 650 (449) 41 (33)</p> <p>38 (41) 120 (95) 20 (31)</p>

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume

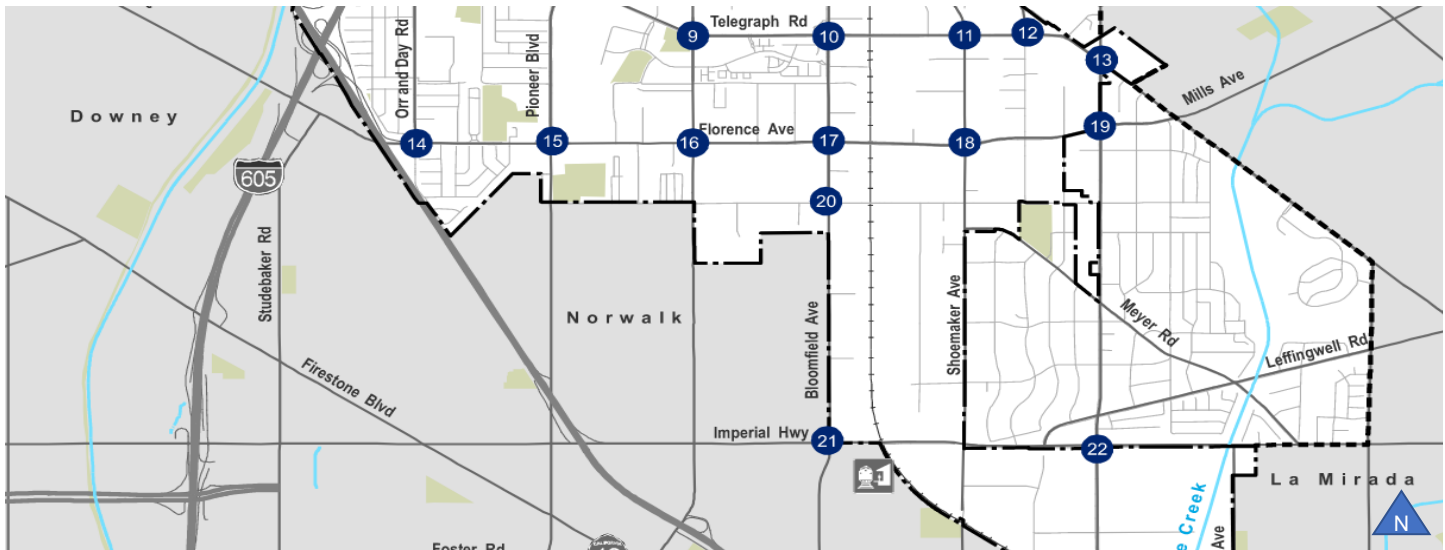


Lane Configuration

Appendix A2

Peak Hour Traffic Volumes and Lane Configurations  
Cumulative Base Scenario  
Santa Fe Springs General Plan





<div>13. Carmenita Rd/Telegraph Rd</div> <div><div><div>Telegraph Rd</div><div><div><div>75 (97)</div><div>483 (523)</div><div>44 (61)</div></div><div><div>67 (152)</div><div>396 (729)</div><div>109 (118)</div></div></div><div><div>Carmenita Rd</div><div><div><div>118 (153)</div><div>678 (458)</div><div>98 (155)</div></div><div><div>157 (129)</div><div>385 (653)</div><div>85 (175)</div></div></div></div></div></div>	<div>14. Orr and Day Rd/Florence Rd</div> <div><div><div>Florence Rd</div><div><div><div>351 (323)</div><div>10 (20)</div><div>63 (114)</div></div><div><div>166 (344)</div><div>1,261 (1,166)</div><div>12 (20)</div></div></div><div><div>Orr and Day Rd</div><div><div><div>125 (116)</div><div>1,125 (1,013)</div><div>10 (0)</div></div><div><div>36 (21)</div><div>20 (100)</div><div>12 (10)</div></div></div></div></div></div>	<div>15. Pioneer Blvd/Florence Ave</div> <div><div><div>Florence Ave</div><div><div><div>33 (82)</div><div>361 (418)</div><div>51 (83)</div></div><div><div>82 (113)</div><div>1,202 (1,002)</div><div>128 (112)</div></div></div><div><div>Pioneer Blvd</div><div><div><div>78 (82)</div><div>1,133 (1,207)</div><div>32 (101)</div></div><div><div>72 (30)</div><div>210 (299)</div><div>115 (186)</div></div></div></div></div></div>	<div>16. Norwalk Blvd/Florence Ave</div> <div><div><div>Florence Ave</div><div><div><div>167 (233)</div><div>373 (477)</div><div>104 (121)</div></div><div><div>250 (37)</div><div>966 (1,059)</div><div>155 (137)</div></div></div><div><div>Norwalk Blvd</div><div><div><div>46 (70)</div><div>995 (885)</div><div>141 (153)</div></div><div><div>123 (155)</div><div>302 (630)</div><div>133 (76)</div></div></div></div></div></div>
<div>17. Bloomfield Ave/Florence Ave</div> <div><div><div>Florence Ave</div><div><div><div>72 (63)</div><div>668 (610)</div><div>42 (80)</div></div><div><div>44 (193)</div><div>775 (821)</div><div>173 (167)</div></div></div><div><div>Bloomfield Ave</div><div><div><div>114 (60)</div><div>971 (786)</div><div>121 (131)</div></div><div><div>71 (116)</div><div>355 (570)</div><div>53 (143)</div></div></div></div></div></div>	<div>18. Shoemaker Ave/Florence Ave</div> <div><div><div>Florence Ave</div><div><div><div>62 (101)</div><div>263 (444)</div><div>25 (76)</div></div><div><div>97 (123)</div><div>541 (1,060)</div><div>145 (48)</div></div></div><div><div>Shoemaker Ave</div><div><div><div>63 (23)</div><div>1,109 (774)</div><div>108 (62)</div></div><div><div>102 (68)</div><div>316 (369)</div><div>56 (149)</div></div></div></div></div></div>	<div>19. Carmenita Rd/Florence Ave</div> <div><div><div>Florence Ave</div><div><div><div>96 (114)</div><div>587 (761)</div><div>33 (97)</div></div><div><div>88 (168)</div><div>411 (1,178)</div><div>91 (107)</div></div></div><div><div>Carmenita Rd</div><div><div><div>31 (52)</div><div>1,071 (506)</div><div>43 (123)</div></div><div><div>150 (97)</div><div>523 (771)</div><div>98 (215)</div></div></div></div></div></div>	<div>20. Bloomfield Ave/Lakeland Rd</div> <div><div><div>Lakeland Rd</div><div><div><div>129 (10)</div><div>685 (770)</div><div>96 (103)</div></div><div><div>52 (124)</div><div>137 (91)</div><div>72 (107)</div></div></div><div><div>Bloomfield Ave</div><div><div><div>53 (105)</div><div>34 (172)</div><div>152 (124)</div></div><div><div>55 (70)</div><div>376 (668)</div><div>32 (164)</div></div></div></div></div></div>
<div>21. Bloomfield Ave/Imperial Highway</div> <div><div><div>Imperial Highway</div><div><div><div>141 (240)</div><div>497 (719)</div><div>92 (158)</div></div><div><div>217 (176)</div><div>667 (1,064)</div><div>11 (30)</div></div></div><div><div>Bloomfield Ave</div><div><div><div>81 (77)</div><div>1,104 (1,000)</div><div>243 (226)</div></div><div><div>81 (113)</div><div>472 (445)</div><div>241 (385)</div></div></div></div></div></div>	<div>22. Carmenita Rd/Imperial Highway</div> <div><div><div>Imperial Highway</div><div><div><div>33 (70)</div><div>1,006 (754)</div><div>74 (53)</div></div><div><div>65 (122)</div><div>472 (745)</div><div>197 (158)</div></div></div><div><div>Carmenita Rd</div><div><div><div>73 (193)</div><div>726 (643)</div><div>119 (109)</div></div><div><div>173 (150)</div><div>623 (1,098)</div><div>78 (183)</div></div></div></div></div></div>		

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume

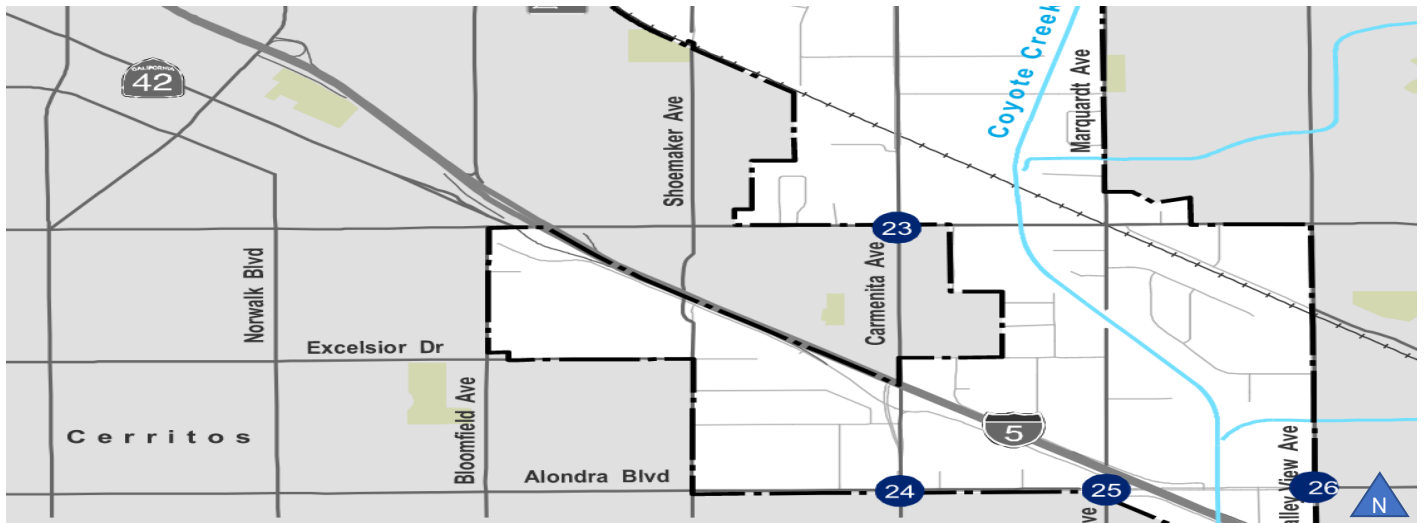


Lane Configuration

Appendix A2

## Peak Hour Traffic Volumes and Lane Configurations Cumulative Base Scenario Santa Fe Springs General Plan





23. Carmenita Rd/Rosecrans Ave	24. Carmenita Rd/Alondra Blvd	25. Marquardt Ave/Alondra Blvd	26. Valley View Ave/Alondra Blvd
<p>Rosecrans Ave</p> <p>Carmenita Rd</p> <p>394 (363) 1,043 (975) 60 (49)</p> <p>26 (162) 523 (431) 100 (96)</p> <p>274 (350) 427 (416) 56 (68)</p> <p>57 (107) 743 (1,132) 145 (121)</p>	<p>Alondra Blvd</p> <p>Carmenita Rd</p> <p>238 (137) 392 (570) 132 (83)</p> <p>174 (221) 416 (703) 190 (134)</p> <p>217 (216) 375 (564) 33 (55)</p> <p>43 (53) 439 (605) 77 (121)</p>	<p>Alondra Blvd</p> <p>Marquardt Ave</p> <p>26 (22) 62 (78) 51 (12)</p> <p>32 (13) 698 (785) 276 (153)</p> <p>13 (11) 417 (650)</p> <p>79 (114) 72 (103) 198 (487)</p>	<p>Alondra Blvd</p> <p>Valley View Ave</p> <p>504 (497) 614 (526) 77 (111)</p> <p>68 (107) 729 (444) 334 (226)</p> <p>200 (324) 285 (797) 12 (84)</p> <p>137 (93) 511 (800) 330 (166)</p>

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume

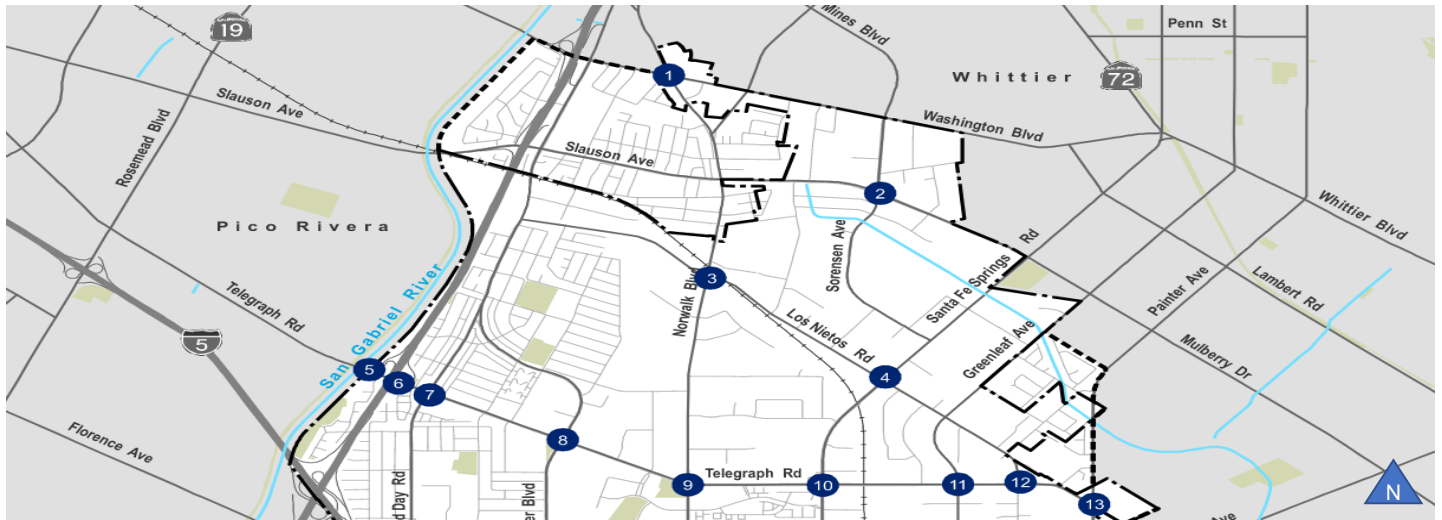


Lane Configuration



Appendix A2

## Peak Hour Traffic Volumes and Lane Configurations Cumulative Base Scenario Santa Fe Springs General Plan



1. Norwalk Blvd/ Washington Blvd	2. Sorensen Ave/Slauson Ave	3. Norwalk Ave/Los Nietos Rd	4. Santa Fe Springs Rd/Los Nietos Rd
<p>Washington Blvd</p> <p>Norwalk Blvd</p> <p>72 (133) 988 (1,114) 66 (212)</p> <p>122 (147) 1,094 (1,263) 56 (71)</p> <p>172 (241) 308 (687) 33 (51)</p>	<p>Slauson Ave</p> <p>Sorensen Ave</p> <p>81 (136) 307 (231) 151 (192)</p> <p>64 (165) 803 (845) 24 (53)</p> <p>156 (139) 876 (950) 174 (79)</p> <p>82 (96) 165 (426) 15 (45)</p>	<p>Los Nietos Rd</p> <p>Norwalk Ave</p> <p>44 (101) 593 (588) 58 (33)</p> <p>72 (32) 156 (409) 72 (84)</p> <p>65 (59) 150 (90) 202 (107)</p> <p>53 (110) 205 (690) 64 (78)</p>	<p>Los Nietos Rd</p> <p>Santa Fe Springs Rd</p> <p>23 (73) 697 (646) 120 (148)</p> <p>109 (222) 288 (368) 119 (64)</p> <p>33 (66) 249 (311) 139 (81)</p> <p>91 (159) 482 (891) 43 (62)</p>
5. I-605 SB Ramps/Telegraph Rd	6. I-605 NB Ramps/Telegraph Rd	7. Orr and Day Rd/Telegraph Rd	8. Pioneer Blvd/Telegraph Rd
<p>Telegraph Rd</p> <p>I-605 SB Ramps</p> <p>34 (63) 10 (10) 94 (91)</p> <p>1,029 (1,245) 687 (1,134) 12 (11)</p> <p>248 (187) 1,250 (953) 20 (72)</p> <p>31 (21) 42 (42) 21 (11)</p>	<p>Telegraph Rd</p> <p>I-605 NB Ramps</p> <p>317 (185) 1,497 (1,885) 10 (11)</p> <p>57 (195) 1,818 (1,339) 42 (52)</p> <p>53 (51) 52 (30) 15 (21)</p>	<p>Telegraph Rd</p> <p>Orr and Day Rd</p> <p>526 (593) 128 (276) 32 (60)</p> <p>11 (12) 1,042 (1,196) 57 (81)</p> <p>112 (163) 1,399 (1,114) 278 (112)</p> <p>138 (185) 106 (367) 106 (114)</p>	<p>Telegraph Rd</p> <p>Pioneer Blvd</p> <p>25 (55) 300 (215) 42 (83)</p> <p>73 (40) 1,045 (1,176) 55 (128)</p> <p>52 (35) 1,252 (963) 127 (188)</p> <p>56 (84) 126 (418) 77 (94)</p>
9. Norwalk Blvd/Telegraph Rd	10. Santa Fe Springs Rd/Telegraph Rd	11. Shoemaker Ave/Telegraph Rd	12. Painter Ave/Telegraph Rd
<p>Telegraph Rd</p> <p>Norwalk Blvd</p> <p>171 (199) 552 (593) 49 (80)</p> <p>48 (11) 769 (783) 117 (107)</p> <p>214 (105) 827 (838) 35 (108)</p> <p>231 (141) 402 (629) 49 (96)</p>	<p>Telegraph Rd</p> <p>Santa Fe Springs Rd</p> <p>177 (196) 700 (661) 48 (85)</p> <p>131 (65) 699 (641) 65 (76)</p> <p>153 (106) 623 (669) 85 (72)</p> <p>85 (34) 520 (887) 57 (11)</p>	<p>Telegraph Rd</p> <p>Shoemaker Ave</p> <p>68 (67) 376 (311) 23 (30)</p> <p>34 (31) 627 (529) 84 (35)</p> <p>87 (11) 477 (760) 128 (100)</p> <p>97 (110) 222 (540) 31 (67)</p>	<p>Telegraph Rd</p> <p>Painter Ave</p> <p>34 (33) 133 (84) 195 (298)</p> <p>288 (303) 671 (522) 41 (33)</p> <p>45 (55) 424 (817) 42 (44)</p> <p>38 (41) 109 (190) 20 (31)</p>

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume



Lane Configuration

Appendix A3

## Peak Hour Traffic Volumes and Lane Configurations Cumulative Plus-Project Scenario Santa Fe Springs General Plan





<b>13. Carmenita Rd/Telegraph Rd</b> 	<b>14. Orr and Day Rd/Florence Rd</b> 	<b>15. Pioneer Blvd/Florence Ave</b> 	<b>16. Norwalk Blvd/Florence Ave</b> 
<b>17. Bloomfield Ave/Florence Ave</b> 	<b>18. Shoemaker Ave/Florence Ave</b> 	<b>19. Carmenita Rd/Florence Ave</b> 	<b>20. Bloomfield Ave/Lakeland Rd</b> 
<b>21. Bloomfield Ave/Imperial Highway</b> 	<b>22. Carmenita Rd/Imperial Highway</b> 		

## Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume

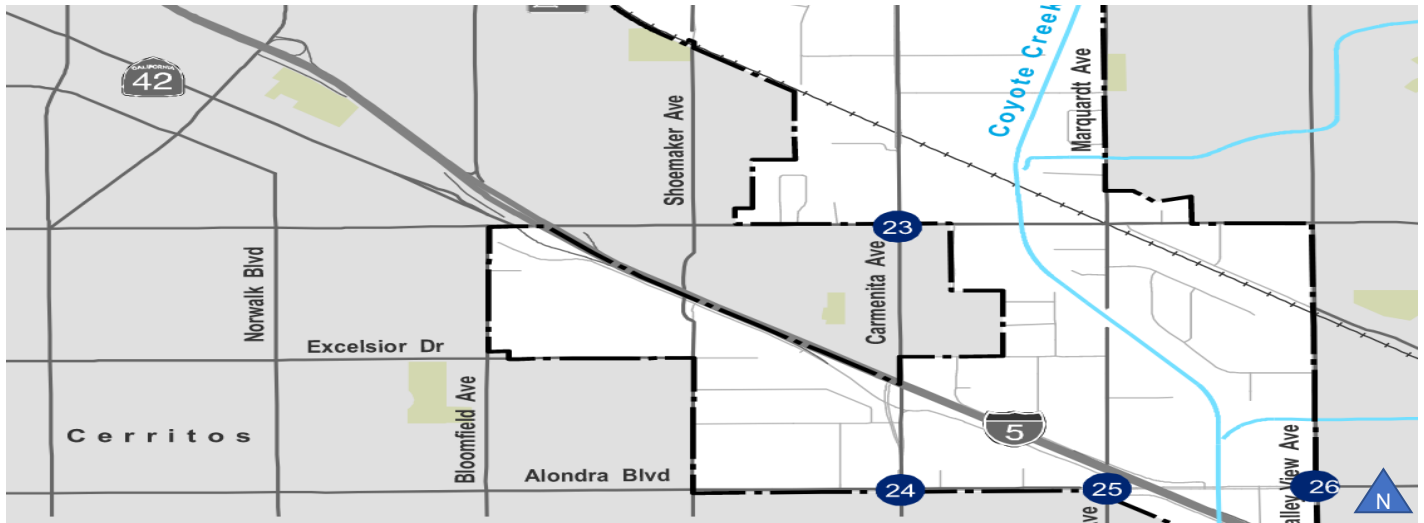


Lane Configuration

Appendix A3

## Peak Hour Traffic Volumes and Lane Configurations Cumulative Plus-Project Scenario Santa Fe Springs General Plan





23. Carmenita Rd/Rosecrans Ave	24. Carmenita Rd/Alondra Blvd	25. Marquardt Ave/Alondra Blvd	26. Valley View Ave/Alondra Blvd

Legend



Study Intersection

AM (PM) Peak Hour Traffic Volume



Lane Configuration





# Appendix B:

## Existing Traffic Counts

## **Intersection Turning Movement Counts**

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Washington

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
1  
SIGNAL

NOTES:

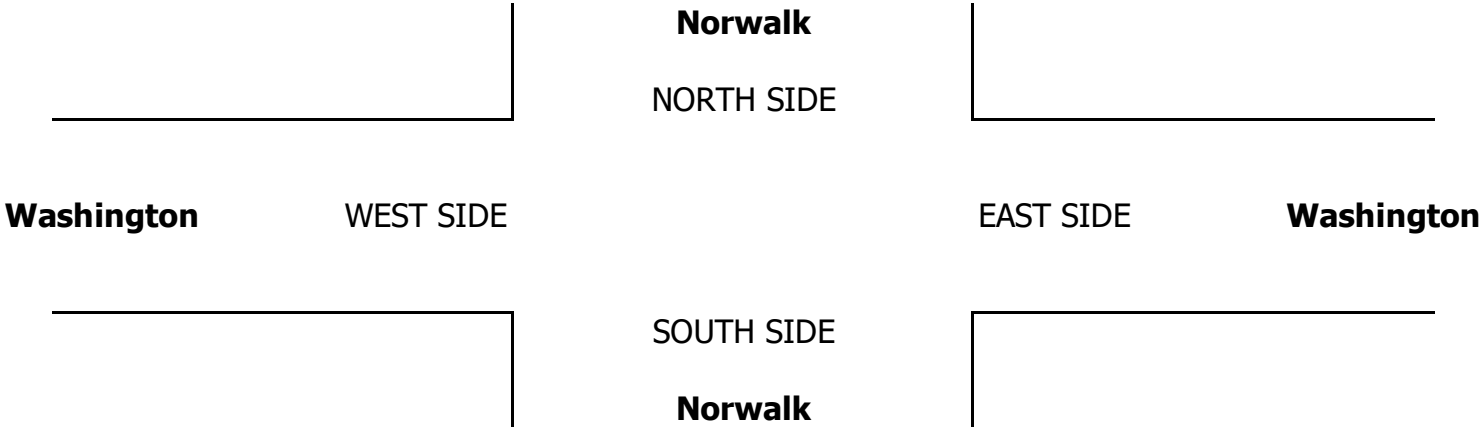
AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
▼

E ▶

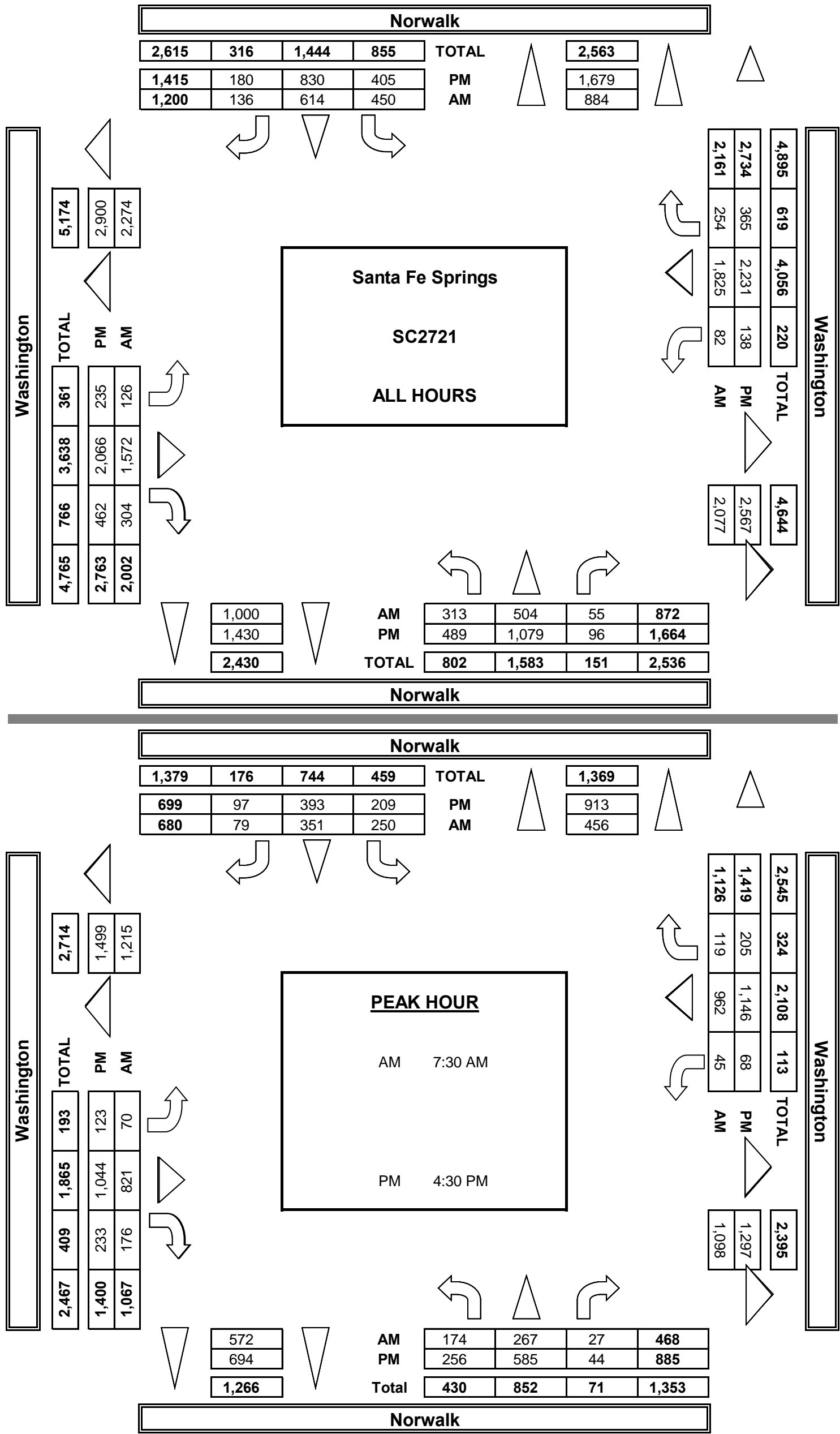
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Norwalk			Norwalk			Washington			Washington				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL	0	0	0	0	
AM	7:00 AM	31	54	4	36	51	10	11	163	34	3	248	31	676	0	0	0	0	0
	7:15 AM	41	51	6	45	90	16	15	169	41	12	220	39	745	0	0	0	0	0
	7:30 AM	43	66	10	51	93	24	17	196	58	12	268	28	866	0	0	0	0	0
	7:45 AM	40	67	7	69	102	22	18	226	49	7	219	31	857	0	0	0	0	0
	8:00 AM	41	73	2	73	82	18	18	187	28	12	245	24	803	0	0	0	0	0
	8:15 AM	50	61	8	57	74	15	17	212	41	14	230	36	815	0	0	0	0	0
	8:30 AM	34	70	10	53	57	17	9	210	24	10	203	32	729	0	0	0	0	0
	8:45 AM	33	62	8	66	65	14	21	209	29	12	192	33	744	0	0	0	0	0
	VOLUMES	313	504	55	450	614	136	126	1,572	304	82	1,825	254	6,235	0	0	0	0	0
	APPROACH %	36%	58%	6%	38%	51%	11%	6%	79%	15%	4%	84%	12%						
APP/DEPART	872	/	884	1,200	/	1,000	2,002	/	2,077	2,161	/	2,274	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	174	267	27	250	351	79	70	821	176	45	962	119	3,341						
APPROACH %	37%	57%	6%	37%	52%	12%	7%	77%	16%	4%	85%	11%							
PEAK HR FACTOR	0.983			0.881			0.910			0.914			0.964						
APP/DEPART	468	/	456	680	/	572	1,067	/	1,098	1,126	/	1,215	0						
PM	04:00 PM	60	145	14	51	99	15	23	273	53	9	268	48	1,058	0	0	0	0	0
	4:15 PM	56	118	10	46	114	18	29	229	57	16	293	36	1,022	0	0	0	0	0
	4:30 PM	61	168	13	53	99	20	31	255	50	19	283	44	1,096	0	0	0	0	0
	4:45 PM	62	124	9	51	104	27	26	274	60	14	288	48	1,087	0	0	0	0	0
	5:00 PM	68	154	14	55	99	19	36	260	67	20	274	54	1,120	0	0	0	0	0
	5:15 PM	65	139	8	50	91	31	30	255	56	15	301	59	1,100	0	0	0	0	0
	5:30 PM	63	130	15	47	122	31	31	247	66	18	280	34	1,084	0	0	0	0	0
	5:45 PM	54	101	13	52	102	19	29	273	53	27	244	42	1,009	0	0	0	0	0
	VOLUMES	489	1,079	96	405	830	180	235	2,066	462	138	2,231	365	8,576	0	0	0	0	0
	APPROACH %	29%	65%	6%	29%	59%	13%	9%	75%	17%	5%	82%	13%						
	APP/DEPART	1,664	/	1,679	1,415	/	1,430	2,763	/	2,567	2,734	/	2,900	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	256	585	44	209	393	97	123	1,044	233	68	1,146	205	4,403					
	APPROACH %	29%	66%	5%	30%	56%	14%	9%	75%	17%	5%	81%	14%						
	PEAK HR FACTOR	0.914			0.960			0.964			0.946			0.983					
APP/DEPART	885	/	913	699	/	694	1,400	/	1,297	1,419	/	1,499	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	0	1	0	2	3	0	1	0	2	3	0	0	0	0	0
	1	3	1	1	6	1	2	1	1	5	0	1	0	0	1
	1	4	8	1	14	1	4	8	1	14	0	0	0	0	0
	3	2	5	2	12	2	2	5	0	9	1	0	0	2	3
	4	3	6	2	15	4	3	6	2	15	0	0	0	0	0
	0	2	6	0	8	0	1	5	0	6	0	1	1	0	2
	2	4	8	1	15	2	4	7	1	14	0	0	1	0	1
PM	11	20	34	9	74	10	18	32	7	67	1	2	2	2	7
	0	1	4	1	6	0	1	4	1	6	0	0	0	0	0
	2	9	5	3	19	2	7	4	1	14	0	2	1	2	5
	2	0	4	1	7	2	0	3	1	6	0	0	1	0	1
	1	1	1	1	4	1	0	1	1	3	0	1	0	0	1
	2	3	2	2	9	2	2	2	2	8	0	1	0	0	1
	0	2	4	0	6	0	2	3	0	5	0	0	1	0	1
	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	2	0	3	1	6	1	0	2	1	4	1	0	1	0	2
TOTAL						8	12	20	7	47	1	4	4	2	11

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Washington	PROJECT #: LOCATION #: CONTROL:	SC2721 1 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Washington			Washington				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL					

AM	7:00 AM	40	71	4	40	60	10	11	187	37	4	263	39	764					0
	7:15 AM	49	61	7	51	96	19	16	190	47	12	233	45	823					0
	7:30 AM	52	82	11	58	102	26	18	215	61	14	293	31	960					0
	7:45 AM	49	80	8	71	118	23	19	244	56	9	236	34	944					0
	8:00 AM	51	85	2	78	89	19	19	199	31	14	275	27	886					0
	8:15 AM	62	71	9	64	89	18	17	225	47	14	249	41	904					0
	8:30 AM	41	86	10	60	64	18	10	223	28	10	234	34	817					0
	8:45 AM	42	81	8	72	75	15	21	219	35	12	211	37	826					0
	VOLUMES	384	616	59	493	690	147	129	1,700	340	88	1,993	286	6,923	0	0	0	0	0
	APPROACH %	36%	58%	6%	37%	52%	11%	6%	78%	16%	4%	84%	12%						
APP/DEPART	1,058	/	1,030	1,330	/	1,118	2,169	/	2,252	2,366	/	2,524	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	214	317	30	271	396	86	72	882	194	50	1,052	132	3,693						
APPROACH %	38%	57%	5%	36%	53%	11%	6%	77%	17%	4%	85%	11%							
PEAK HR FACTOR	0.968			0.889			0.902			0.915			0.962						
APP/DEPART	560	/	520	752	/	640	1,148	/	1,182	1,234	/	1,351	0						
PM	04:00 PM	68	155	15	54	121	16	25	284	58	10	280	51	1,133					0
	4:15 PM	66	130	10	49	129	19	30	240	60	16	303	36	1,085					0
	4:30 PM	66	184	13	58	119	21	32	269	52	20	293	46	1,170					0
	4:45 PM	67	144	10	58	116	27	26	286	68	14	296	51	1,160					0
	5:00 PM	74	170	15	65	111	21	38	271	70	20	289	56	1,197					0
	5:15 PM	75	151	8	51	104	34	30	262	57	15	310	64	1,159					0
	5:30 PM	66	136	15	49	135	32	31	254	71	19	289	37	1,131					0
	5:45 PM	55	116	14	54	112	20	30	283	55	28	252	45	1,060					0
	VOLUMES	534	1,184	99	436	944	187	240	2,146	490	141	2,310	384	9,093	0	0	0	0	0
	APPROACH %	29%	65%	5%	28%	60%	12%	8%	75%	17%	5%	81%	14%						
	APP/DEPART	1,817	/	1,808	1,567	/	1,575	2,876	/	2,680	2,834	/	3,031	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	281	648	45	231	449	102	126	1,087	247	69	1,186	216	4,684					
	APPROACH %	29%	67%	5%	30%	57%	13%	9%	74%	17%	5%	81%	15%						
PEAK HR FACTOR	0.929			0.977			0.961			0.947			0.979						
APP/DEPART	974	/	989	782	/	765	1,459	/	1,363	1,470	/	1,568	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Washington	PROJECT #: LOCATION #: CONTROL:	SC2721 1 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

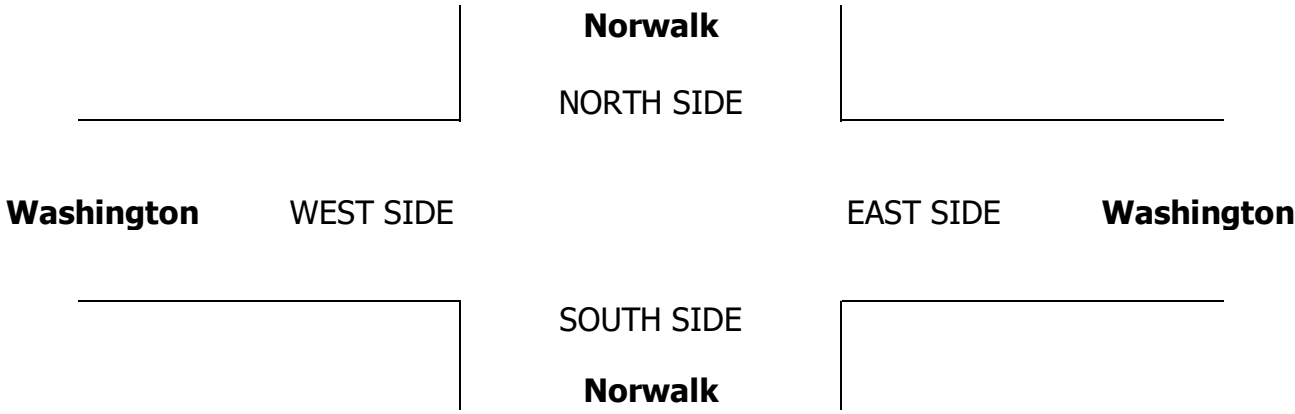
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Washington			Washington			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	21	39	4	31	42	10	11	136	32	2	223	23	574
	7:15 AM	33	39	5	40	81	14	14	148	37	12	201	28	652
	7:30 AM	33	51	9	44	79	21	16	176	55	9	237	23	753
	7:45 AM	31	52	5	65	88	20	17	206	43	6	197	26	756
	8:00 AM	30	58	2	66	75	17	17	170	26	9	214	21	705
	8:15 AM	36	50	7	50	62	13	17	198	36	14	206	30	719
	8:30 AM	24	49	10	45	49	15	8	189	19	10	171	28	617
	8:45 AM	27	48	8	60	53	13	21	197	24	12	165	28	656
	VOLUMES	235	386	50	401	529	123	121	1,420	272	74	1,614	207	5,432
	APPROACH %	35%	58%	7%	38%	50%	12%	7%	78%	15%	4%	85%	11%	
	APP/DEPART	671	/	714	1,053	/	875	1,813	/	1,871	1,895	/	1,972	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	130	211	23	225	304	71	67	750	160	38	854	100	2,933
	APPROACH %	36%	58%	6%	38%	51%	12%	7%	77%	16%	4%	86%	10%	
	PEAK HR FACTOR	0.978			0.867			0.918			0.922			0.970
	APP/DEPART	364	/	378	600	/	502	977	/	998	992	/	1,055	0
PM	4:00 PM	55	134	12	46	76	14	20	259	47	8	248	43	962
	4:15 PM	50	104	10	41	99	17	28	213	53	16	277	36	944
	4:30 PM	58	153	13	46	82	19	29	238	46	18	270	43	1,015
	4:45 PM	59	112	8	44	94	27	26	257	53	14	274	46	1,014
	5:00 PM	65	138	13	47	88	17	34	245	62	20	260	51	1,040
	5:15 PM	59	128	8	49	78	28	30	241	54	15	289	56	1,035
	5:30 PM	61	122	15	44	112	30	31	234	59	16	267	32	1,023
	5:45 PM	53	91	12	48	92	18	28	258	52	26	234	39	951
	VOLUMES	460	982	91	365	721	170	226	1,945	426	133	2,119	346	7,984
	APPROACH %	30%	64%	6%	29%	57%	14%	9%	75%	16%	5%	82%	13%	
	APP/DEPART	1,533	/	1,554	1,256	/	1,280	2,597	/	2,401	2,598	/	2,749	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	241	531	42	186	342	91	119	981	215	67	1,093	196	4,104
	APPROACH %	30%	65%	5%	30%	55%	15%	9%	75%	16%	5%	81%	14%	
	PEAK HR FACTOR	0.908			0.938			0.964			0.942			0.987
	APP/DEPART	814	/	846	619	/	624	1,315	/	1,209	1,356	/	1,425	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Washington

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
1  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Washington			Washington			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	7	8	0	4	4	0	0	18	1	1	22	5	70
	7:15 AM	5	8	0	3	7	0	1	14	1	0	16	11	66
	7:30 AM	6	9	0	5	13	2	1	13	2	3	22	5	81
	7:45 AM	6	11	2	4	7	2	1	14	3	0	17	5	72
	8:00 AM	7	10	0	6	5	1	1	14	0	3	21	2	70
	8:15 AM	10	7	1	4	5	0	0	9	3	0	16	4	59
	8:30 AM	6	16	0	6	6	2	1	19	4	0	22	4	86
	8:45 AM	1	6	0	4	9	1	0	9	2	0	23	4	59
	VOLUMES	48	75	3	36	56	8	5	110	16	7	159	40	563
	APPROACH %	38%	60%	2%	36%	56%	8%	4%	84%	12%	3%	77%	19%	
	APP/DEPART	126	/	120	100	/	79	131	/	149	206	/	215	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	29	37	3	19	30	5	3	50	8	6	76	16	282
PM	APPROACH %	42%	54%	4%	35%	56%	9%	5%	82%	13%	6%	78%	16%	
	PEAK HR FACTOR	0.908			0.675			0.847			0.817			0.870
	APP/DEPART	69	/	56	54	/	44	61	/	72	98	/	110	0
	04:00 PM	0	7	2	5	15	1	3	11	5	1	18	4	72
	4:15 PM	1	8	0	5	9	1	1	14	3	0	14	0	56
	4:30 PM	1	5	0	6	9	1	2	13	4	1	11	0	53
	4:45 PM	1	2	1	5	5	0	0	15	4	0	13	1	47
	5:00 PM	0	9	1	4	6	1	1	11	4	0	9	3	49
	5:15 PM	1	6	0	1	8	1	0	14	2	0	9	1	43
	5:30 PM	1	6	0	3	3	0	0	13	6	2	11	1	46
	5:45 PM	1	3	1	4	7	1	1	13	0	1	6	2	40
	VOLUMES	6	46	5	33	62	6	8	104	28	5	91	12	406
	APPROACH %	11%	81%	9%	33%	61%	6%	6%	74%	20%	5%	84%	11%	
	APP/DEPART	57	/	66	101	/	95	140	/	142	108	/	103	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	3	22	2	16	28	3	3	53	14	1	42	5	192
	APPROACH %	11%	81%	7%	34%	60%	6%	4%	76%	20%	2%	88%	10%	
	PEAK HR FACTOR	0.675			0.734			0.921			0.857			0.906
	APP/DEPART	27	/	30	47	/	43	70	/	71	48	/	48	0

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INTERSECTION TURNING MOVEMENT COUNTS

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DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Washington

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
1  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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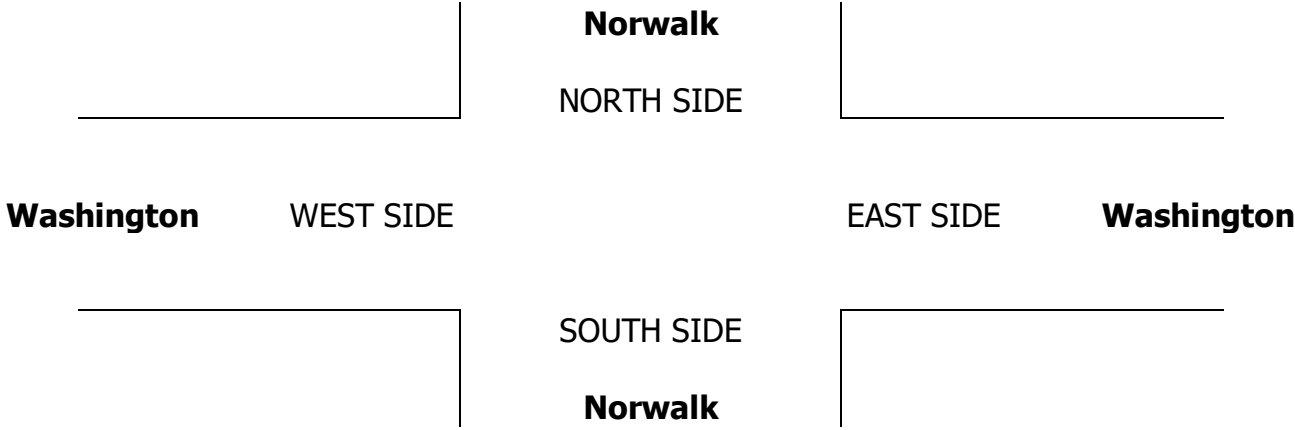
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Washington			Washington			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	0	0	2	0	0	2	0	0	1	1	7
	7:15 AM	1	1	1	0	2	1	0	0	1	0	1	0	8
	7:30 AM	2	0	1	0	0	1	0	1	0	0	3	0	8
	7:45 AM	0	1	0	0	1	0	0	1	1	0	2	0	6
	8:00 AM	2	1	0	0	0	0	0	0	1	0	0	0	4
	8:15 AM	0	2	0	1	1	1	0	1	0	0	4	1	11
	8:30 AM	2	1	0	0	0	0	1	0	0	0	0	0	4
	8:45 AM	2	0	0	0	0	0	1	1	0	1	0	0	5
	VOLUMES	10	6	2	1	6	3	0	7	4	0	12	2	53
	APPROACH %	56%	33%	11%	10%	60%	30%	0%	64%	36%	0%	86%	14%	
	APP/DEPART	18	/	8	10	/	10	11	/	10	14	/	25	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	4	4	1	1	2	2	0	3	2	0	9	1	29
	APPROACH %	44%	44%	11%	20%	40%	40%	0%	60%	40%	0%	90%	10%	
	PEAK HR FACTOR	0.750			0.417			0.625			0.500			0.659
	APP/DEPART	9	/	5	5	/	4	5	/	5	10	/	15	0
PM	04:00 PM	2	2	0	0	2	0	0	0	0	0	1	1	8
	4:15 PM	1	3	0	0	1	0	0	0	1	0	1	0	7
	4:30 PM	0	6	0	0	1	0	0	1	0	0	0	0	8
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	3	0	0	0	0	1	1	0	0	0	0	5
	5:15 PM	1	0	0	0	1	2	0	0	0	0	2	0	6
	5:30 PM	0	1	0	0	2	1	0	0	0	0	1	0	5
	5:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	VOLUMES	4	16	0	0	7	3	1	3	1	0	7	1	43
	APPROACH %	20%	80%	0%	0%	70%	30%	20%	60%	20%	0%	88%	13%	
	APP/DEPART	20	/	18	10	/	8	5	/	3	8	/	14	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	10	0	0	2	2	1	2	0	0	2	0	20
	APPROACH %	9%	91%	0%	0%	50%	50%	33%	67%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.458			0.333			0.375			0.250			0.625
	APP/DEPART	11	/	11	4	/	2	3	/	2	2	/	5	0

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INTERSECTION TURNING MOVEMENT COUNTS

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DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Washington

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
1  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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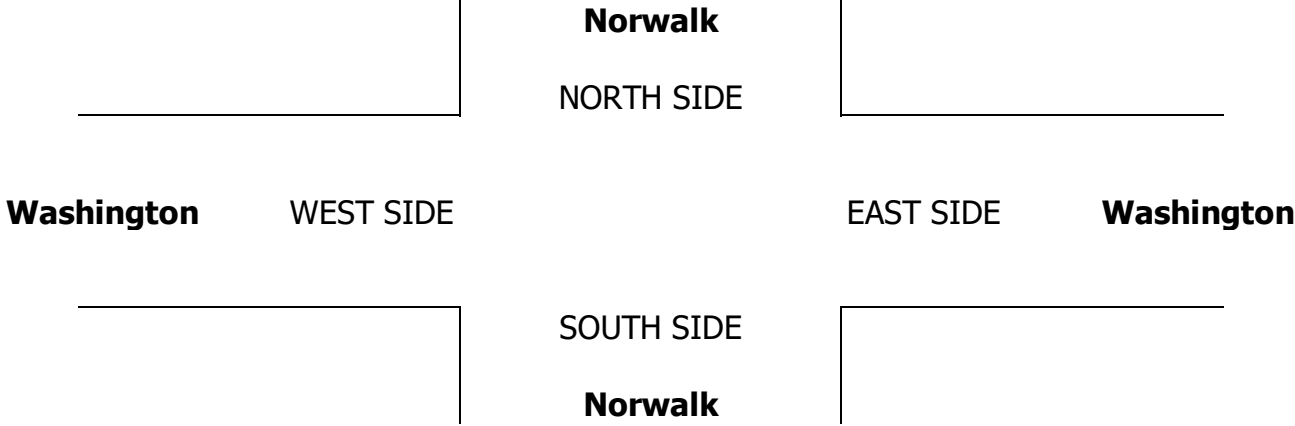
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Washington			Washington			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	6	0	1	2	0	0	6	1	0	1	2	21
	7:15 AM	2	2	0	2	0	1	0	7	2	0	2	0	18
	7:30 AM	2	5	0	2	1	0	0	5	1	0	5	0	21
	7:45 AM	3	3	0	0	5	0	0	5	2	1	3	0	22
	8:00 AM	2	2	0	1	2	0	0	2	1	0	9	1	20
	8:15 AM	3	2	0	2	5	1	0	3	2	0	3	1	22
	8:30 AM	0	3	0	2	2	0	0	1	1	0	10	0	19
	8:45 AM	3	8	0	2	2	0	0	2	2	0	3	1	23
	VOLUMES	17	31	0	12	19	2	0	31	12	1	36	5	166
	APPROACH %	35%	65%	0%	36%	58%	6%	0%	72%	28%	2%	86%	12%	
	APP/DEPART	48	/	36	33	/	32	43	/	43	42	/	55	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	10	12	0	5	13	1	0	15	6	1	20	2	85
PM	APPROACH %	45%	55%	0%	26%	68%	5%	0%	71%	29%	4%	87%	9%	
	PEAK HR FACTOR	0.786			0.594			0.750			0.575			0.966
	APP/DEPART	22	/	14	19	/	20	21	/	20	23	/	31	0
	04:00 PM	3	2	0	0	6	0	0	2	1	0	1	0	15
	4:15 PM	4	2	0	0	4	0	0	2	0	0	1	0	13
	4:30 PM	2	3	0	1	7	0	0	3	0	0	2	1	19
	4:45 PM	2	9	0	2	4	0	0	2	3	0	0	1	23
	5:00 PM	3	4	0	4	4	0	0	1	0	0	5	0	21
	5:15 PM	4	4	0	0	4	0	0	0	0	0	1	2	15
	5:30 PM	1	1	0	0	4	0	0	0	1	0	1	1	9
	5:45 PM	0	6	0	0	3	0	0	1	1	0	1	1	13
	VOLUMES	19	31	0	7	36	0	0	11	6	0	12	6	128
	APPROACH %	38%	62%	0%	16%	84%	0%	0%	65%	35%	0%	67%	33%	
	APP/DEPART	50	/	37	43	/	42	17	/	18	18	/	31	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	11	20	0	7	19	0	0	6	3	0	8	4	78
	APPROACH %	35%	65%	0%	27%	73%	0%	0%	67%	33%	0%	67%	33%	
	PEAK HR FACTOR	0.705			0.813			0.450			0.600			0.848
	APP/DEPART	31	/	24	26	/	22	9	/	13	12	/	19	0

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DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Washington

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
1  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
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OTHER  
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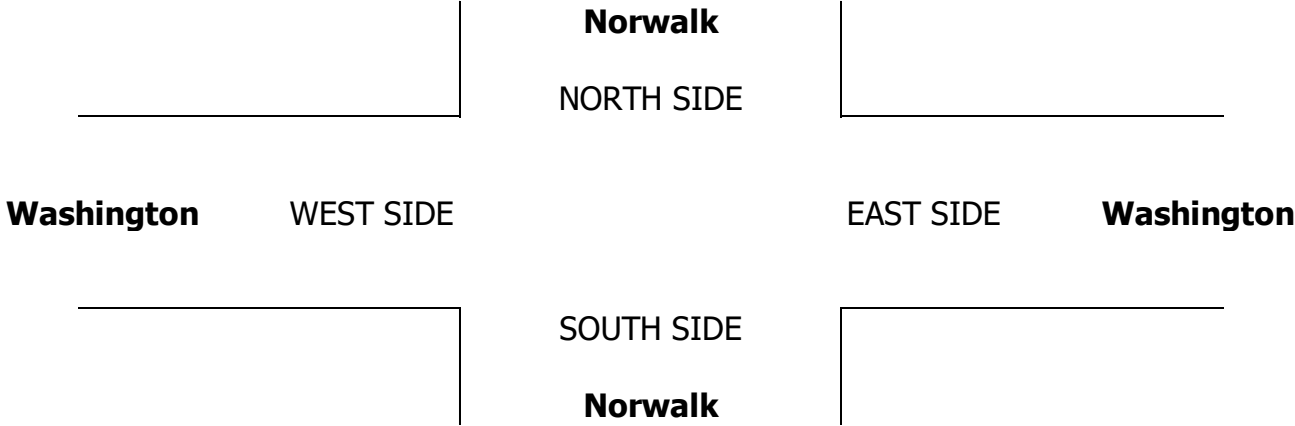
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Washington			Washington			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Washington

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
1  
SIGNAL

CLASS 6:

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Washington			Washington				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2.5	WR 0.5	TOTAL					
7:00 AM	0	1	0	0	1	0	0	1	0	0	1	0	4	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:00 AM	0	2	0	0	0	0	0	1	0	0	1	0	4	0	0	0	0	0
8:15 AM	1	0	0	0	1	0	0	1	0	0	1	0	4	0	0	0	0	0
8:30 AM	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
VOLUMES	3	6	0	0	4	0	0	4	0	0	4	0	21	0	0	0	0	0
APPROACH %	33%	67%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%						
APP/DEPART	9	/	6	4	/	4	4	/	4	4	/	7	0					
BEGIN PEAK HR	7:30 AM																	
VOLUMES	1	3	0	0	2	0	0	3	0	0	3	0	12					
APPROACH %	25%	75%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR	0.500			0.500			0.750			0.750			0.750					
APP/DEPART	4	/	3	2	/	2	3	/	3	3	/	4	0					
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0
5:00 PM	0	0	0	0	1	1	0	2	1	0	0	0	5	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
VOLUMES	0	4	0	0	4	1	0	3	1	0	2	0	15	0	0	0	0	0
APPROACH %	0%	100%	0%	0%	80%	20%	0%	75%	25%	0%	100%	0%						
APP/DEPART	4	/	4	5	/	5	4	/	3	2	/	3	0					
BEGIN PEAK HR	4:30 PM																	
VOLUMES	0	2	0	0	2	1	0	2	1	0	1	0	9					
APPROACH %	0%	100%	0%	0%	67%	33%	0%	67%	33%	0%	100%	0%						
PEAK HR FACTOR	0.500			0.375			0.250			0.250			0.450					
APP/DEPART	2	/	2	3	/	3	3	/	2	1	/	2	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Sorensen  
Slauson

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
2  
SIGNAL

NOTES:

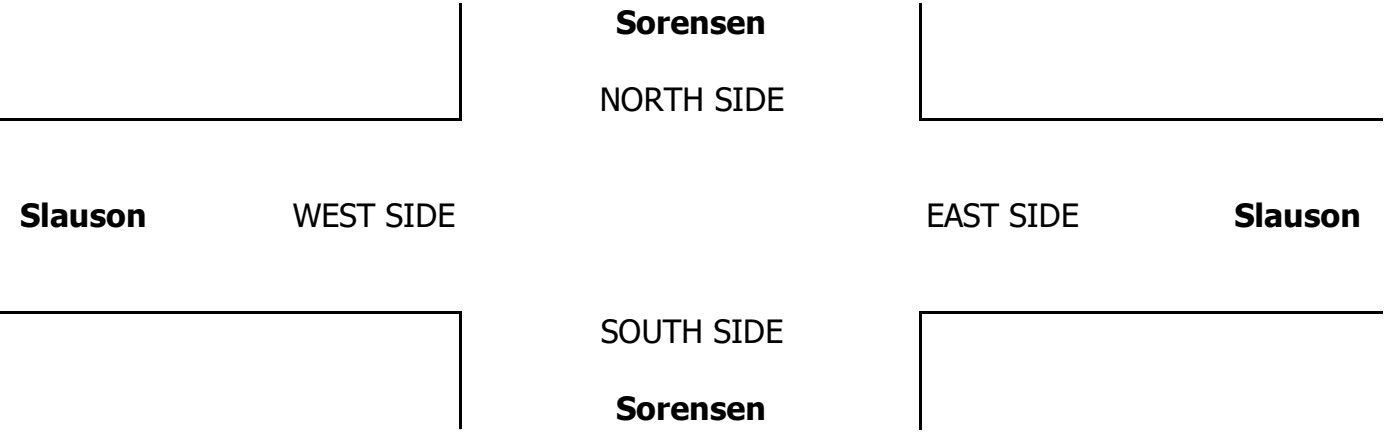
AM  
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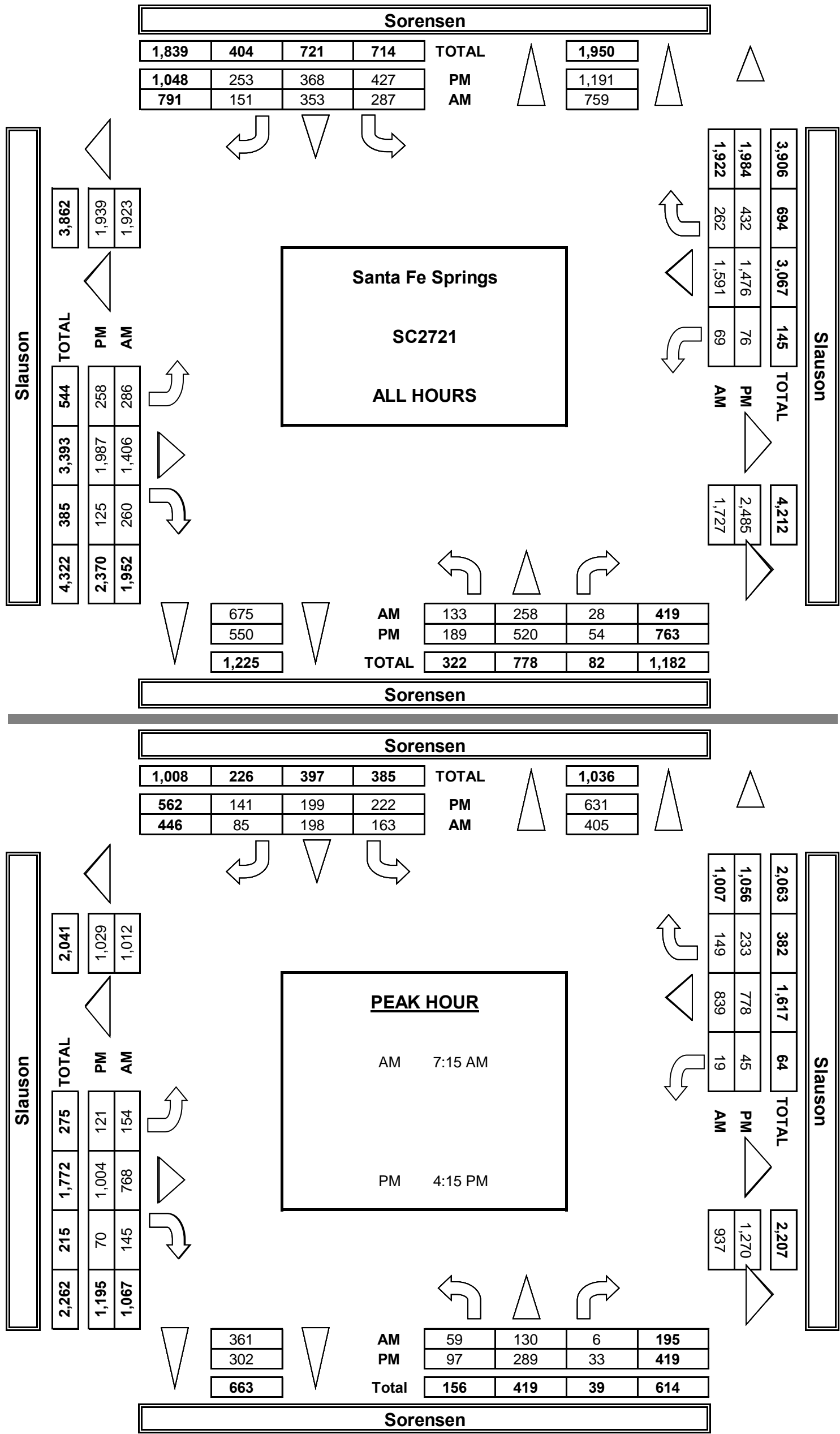
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Sorensen			Sorensen			Slauson			Slauson			TOTAL	NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0		0	0	0	0	
AM	7:00 AM	19	26	3	43	33	14	17	147	34	7	198	24	565	0	0	1	1	2
	7:15 AM	20	30	1	45	45	14	35	165	37	2	224	31	649	0	0	5	0	5
	7:30 AM	11	28	1	43	50	15	29	210	32	5	215	40	679	0	0	7	0	7
	7:45 AM	14	39	1	43	54	26	57	226	34	5	194	43	736	0	1	8	1	10
	8:00 AM	14	33	3	32	49	30	33	167	42	7	206	35	651	0	0	9	0	9
	8:15 AM	15	25	5	34	56	15	46	163	29	16	199	41	644	0	0	6	3	9
	8:30 AM	18	29	6	23	38	16	31	156	24	7	190	28	566	0	0	6	0	6
	8:45 AM	22	48	8	24	28	21	38	172	28	20	165	20	594	0	0	6	2	8
	VOLUMES	133	258	28	287	353	151	286	1,406	260	69	1,591	262	5,084	0	1	48	7	56
	APPROACH %	32%	62%	7%	36%	45%	19%	15%	72%	13%	4%	83%	14%						
APP/DEPART	419	/	759	791	/	675	1,952	/	1,727	1,922	/	1,923	0						
BEGIN PEAK HR																			
VOLUMES	59	130	6	163	198	85	154	768	145	19	839	149	2,715						
APPROACH %	30%	67%	3%	37%	44%	19%	14%	72%	14%	2%	83%	15%							
PEAK HR FACTOR	0.903			0.907			0.841			0.968			0.922						
APP/DEPART	195	/	405	446	/	361	1,067	/	937	1,007	/	1,012	0						
PM	04:00 PM	26	62	8	60	45	33	25	232	18	8	217	58	792	0	0	0	2	2
	4:15 PM	21	66	3	49	34	31	24	267	25	9	195	52	776	0	0	2	2	4
	4:30 PM	29	84	13	51	67	25	31	265	18	11	203	65	862	0	1	4	3	8
	4:45 PM	20	69	12	56	55	35	46	234	16	7	169	69	788	0	0	6	0	6
	5:00 PM	27	70	5	66	43	50	20	238	11	18	211	47	806	0	0	1	7	8
	5:15 PM	19	70	3	46	31	27	31	224	15	9	149	54	678	0	0	3	2	5
	5:30 PM	33	50	7	55	44	29	44	265	10	6	182	45	770	0	1	1	2	4
	5:45 PM	14	49	3	44	49	23	37	262	12	8	150	42	693	0	0	4	1	5
	VOLUMES	189	520	54	427	368	253	258	1,987	125	76	1,476	432	6,165	0	2	21	19	42
	APPROACH %	25%	68%	7%	41%	35%	24%	11%	84%	5%	4%	74%	22%						
APP/DEPART	763	/	1,191	1,048	/	550	2,370	/	2,485	1,984	/	1,939	0						
BEGIN PEAK HR																			
VOLUMES	97	289	33	222	199	141	121	1,004	70	45	778	233	3,232						
APPROACH %	23%	69%	8%	40%	35%	25%	10%	84%	6%	4%	74%	22%							
PEAK HR FACTOR	0.831			0.884			0.945			0.946			0.937						
APP/DEPART	419	/	631	562	/	302	1,195	/	1,270	1,056	/	1,029	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	0	0	1	2	1	0	0	0	1	0	0	0	1	1
	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	1	0	1	0	2	0	0	0	0	0	1	0	1	0	2
	0	0	2	0	2	0	0	1	0	1	0	0	1	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	0	1	0	1	2	0	1	0	0	1	0	0	0	1	1
TOTAL					12	3	2	1	1	7	1	0	2	2	5
PM	2	0	1	1	4	0	0	0	0	0	2	0	1	1	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	1	1	3	0	1	1	1	3	0	0	0	0	0
	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
	3	0	0	1	4	3	0	0	1	4	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0
	0	0	1	1	2	0	0	1	1	2	0	0	1	0	1
TOTAL					16	5	1	5	5	16	2	0	3	2	7

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

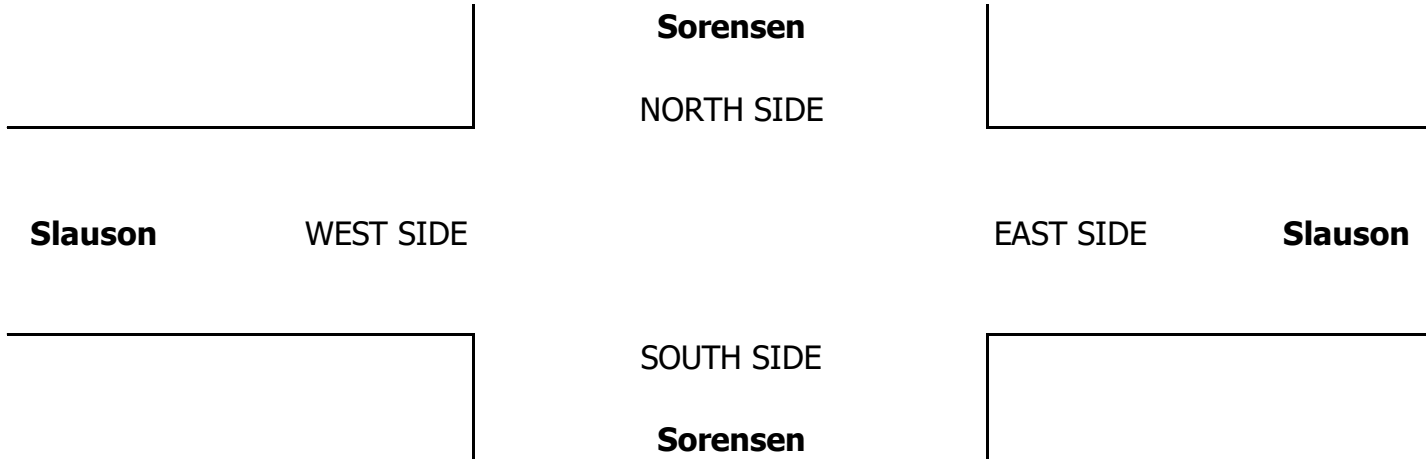
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Sorensen Slauson	PROJECT #: LOCATION #: CONTROL:	SC2721 2 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Sorensen			Sorensen			Slauson			Slauson								
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	28	32	4	47	35	17	18	165	36	9	210	26	624					0
	7:15 AM	37	36	3	47	47	17	38	183	43	3	244	32	727					0
	7:30 AM	16	36	2	50	52	19	34	237	41	7	225	43	759					0
	7:45 AM	24	46	1	46	55	30	63	252	42	5	211	46	818					0
	8:00 AM	20	35	4	34	56	34	38	181	56	8	232	40	735					0
	8:15 AM	27	30	5	36	61	16	49	186	39	20	212	46	725					0
	8:30 AM	31	41	7	25	42	22	35	178	31	8	204	31	652					0
	8:45 AM	32	61	13	26	32	28	42	192	37	22	179	20	681					0
	VOLUMES	214	316	37	308	379	181	315	1,573	322	81	1,715	282	5,720	0	0	0	0	0
	APPROACH %	38%	56%	6%	35%	44%	21%	14%	71%	15%	4%	83%	14%						
APP/DEPART	566	/	912	868	/	782	2,209	/	1,917	2,077	/	2,109	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	97	153	9	176	210	99	172	852	181	23	911	160	3,039						
APPROACH %	37%	59%	3%	36%	43%	20%	14%	71%	15%	2%	83%	15%							
PEAK HR FACTOR	0.850			0.926			0.846			0.977			0.929						
APP/DEPART	259	/	485	484	/	413	1,205	/	1,037	1,093	/	1,106	0						
PM	04:00 PM	33	65	9	61	51	36	26	243	22	8	233	60	844					0
	4:15 PM	23	70	3	52	34	33	26	281	41	11	204	56	831					0
	4:30 PM	32	91	15	53	71	26	33	279	26	12	223	67	924					0
	4:45 PM	22	76	14	62	60	35	50	250	26	7	180	71	850					0
	5:00 PM	28	73	5	72	45	55	21	252	18	18	226	48	858					0
	5:15 PM	20	72	3	49	35	28	34	241	19	11	158	58	724					0
	5:30 PM	44	55	7	56	47	30	45	282	15	6	189	50	823					0
	5:45 PM	18	51	3	47	51	24	38	277	15	8	152	47	729					0
	VOLUMES	217	550	59	450	393	265	270	2,102	180	81	1,563	455	6,582	0	0	0	0	0
	APPROACH %	26%	67%	7%	41%	35%	24%	11%	82%	7%	4%	74%	22%						
	APP/DEPART	825	/	1,275	1,107	/	653	2,552	/	2,610	2,098	/	2,045	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	103	308	37	237	209	148	129	1,060	110	48	832	241	3,462					
	APPROACH %	23%	69%	8%	40%	35%	25%	10%	82%	8%	4%	74%	22%						
	PEAK HR FACTOR	0.818			0.868			0.936			0.931			0.937					
APP/DEPART	448	/	678	594	/	367	1,299	/	1,334	1,121	/	1,083	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Sorensen  
Slauson

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
2  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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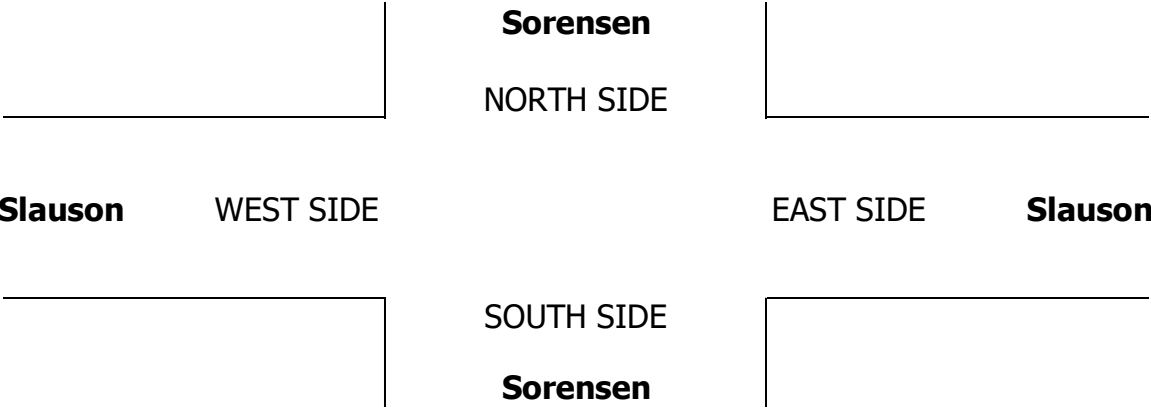
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Sorensen			Sorensen			Slauson			Slauson			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	6	21	2	38	30	11	16	129	31	4	182	20	490
	7:15 AM	3	18	0	42	42	9	33	149	31	1	196	30	554
	7:30 AM	2	18	0	37	46	11	21	176	23	4	199	36	573
	7:45 AM	5	31	1	39	52	19	48	200	29	5	175	39	643
	8:00 AM	5	29	2	28	42	26	28	150	31	5	179	29	554
	8:15 AM	4	18	5	32	50	13	42	143	21	13	180	33	554
	8:30 AM	7	19	5	20	32	11	27	132	20	5	176	25	479
	8:45 AM	12	32	5	21	24	13	33	148	20	17	152	20	497
	VOLUMES	44	186	20	257	318	113	248	1,227	206	54	1,439	232	4,344
	APPROACH %	18%	74%	8%	37%	46%	16%	15%	73%	12%	3%	83%	13%	
	APP/DEPART	250	/	627	688	/	572	1,681	/	1,509	1,725	/	1,636	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	15	96	3	145	182	65	108	675	114	14	749	134	2,324
	APPROACH %	13%	84%	3%	37%	46%	17%	12%	73%	12%	2%	83%	15%	
PM	PEAK HR FACTOR	0.770			0.893			0.829			0.939			0.904
	APP/DEPART	114	/	339	393	/	310	919	/	824	898	/	851	0
	04:00 PM	20	57	7	58	36	31	24	217	11	8	204	55	728
	4:15 PM	18	62	3	44	34	30	21	245	11	8	179	50	705
	4:30 PM	25	77	12	48	63	24	27	246	9	10	186	62	789
	4:45 PM	18	62	11	46	46	35	41	214	6	7	159	66	711
	5:00 PM	26	68	5	59	39	43	19	221	3	18	198	45	744
	5:15 PM	18	66	3	41	25	26	26	203	8	8	141	50	615
	5:30 PM	24	47	7	53	41	27	43	244	4	6	175	42	713
	5:45 PM	10	48	3	41	45	21	36	246	9	8	146	36	649
	VOLUMES	159	487	51	390	329	237	237	1,836	61	73	1,388	406	5,654
	APPROACH %	23%	70%	7%	41%	34%	25%	11%	86%	3%	4%	74%	22%	
	APP/DEPART	697	/	1,113	956	/	444	2,134	/	2,294	1,867	/	1,803	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	87	269	31	196	182	132	96	926	29	31	722	223	2,949
	APPROACH %	22%	70%	8%	38%	36%	26%	9%	87%	3%	3%	73%	23%	
	PEAK HR FACTOR	0.849			0.906			0.942			0.946			0.934
	APP/DEPART	387	/	589	511	/	242	1,063	/	1,165	988	/	953	0

0	0	1	1	2
0	0	5	0	5
0	0	3	0	3
0	1	7	1	9
0	0	7	0	7
0	0	6	3	9
0	0	5	0	5
0	0	6	1	7
0	1	40	6	47

0	0	0	2	2
0	0	2	2	4
0	1	4	3	8
0	0	5	0	5
0	0	1	7	8
0	0	2	2	4
0	1	1	2	4
0	0	4	1	5
0	2	19	19	40



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Sorensen Slauson	PROJECT #: LOCATION #: CONTROL:	SC2721 2 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div>▲ N ◀ W S ▼ E ▶</div>

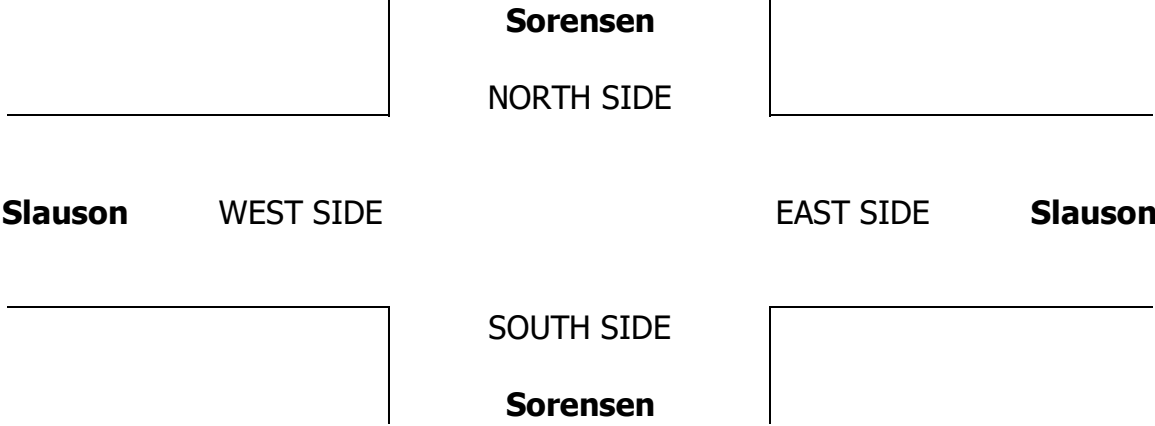
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Sorensen			Sorensen			Slauson			Slauson			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	11	3	1	4	3	2	1	12	3	2	13	4	59
	7:15 AM	10	12	0	3	2	5	1	9	4	1	22	1	70
	7:30 AM	8	8	1	3	4	3	6	24	5	0	15	3	80
	7:45 AM	5	6	0	3	2	6	8	13	1	0	13	3	60
	8:00 AM	8	4	1	4	5	3	3	10	5	2	17	4	66
	8:15 AM	6	6	0	1	4	2	3	9	4	1	16	7	59
	8:30 AM	6	5	1	3	4	3	3	16	1	2	9	2	55
	8:45 AM	7	13	1	3	2	6	4	18	5	3	8	0	70
	VOLUMES	61	57	5	24	26	30	29	111	28	11	113	24	519
	APPROACH %	50%	46%	4%	30%	33%	38%	17%	66%	17%	7%	76%	16%	
	APP/DEPART	123	/	103	80	/	64	168	/	141	148	/	211	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	31	30	2	13	13	17	12	56	15	3	67	11	276
	APPROACH %	49%	48%	3%	30%	30%	40%	13%	63%	17%	4%	83%	14%	
	PEAK HR FACTOR	0.716			0.896			0.636			0.844			0.863
	APP/DEPART	63	/	53	43	/	31	89	/	71	81	/	121	0
PM	04:00 PM	3	5	1	2	8	1	1	12	6	0	4	3	46
	4:15 PM	3	3	0	5	0	0	3	19	8	0	15	0	56
	4:30 PM	3	5	0	3	3	1	4	15	7	1	8	3	53
	4:45 PM	1	5	0	9	9	0	4	15	7	0	6	3	59
	5:00 PM	1	1	0	5	4	5	1	13	6	0	7	2	45
	5:15 PM	1	4	0	5	5	1	5	17	7	0	5	2	52
	5:30 PM	4	1	0	2	2	2	1	17	5	0	5	1	40
	5:45 PM	3	0	0	2	4	2	1	11	2	0	4	5	34
	VOLUMES	19	24	1	33	35	12	20	119	48	1	54	19	385
	APPROACH %	43%	55%	2%	41%	44%	15%	11%	64%	26%	1%	73%	26%	
	APP/DEPART	44	/	61	80	/	84	187	/	153	74	/	87	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	8	14	0	22	16	6	11	62	28	1	36	8	213
	APPROACH %	36%	64%	0%	50%	36%	14%	11%	61%	27%	2%	80%	18%	
	PEAK HR FACTOR	0.688			0.611			0.850			0.750			0.903
	APP/DEPART	22	/	33	44	/	45	102	/	84	45	/	51	0

0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	1	0	1
0	0	2	0	2
0	0	0	0	0
0	0	1	0	1
0	0	0	1	1
0	0	7	1	8

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Sorensen Slauson	PROJECT #: LOCATION #: CONTROL:	SC2721 2 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

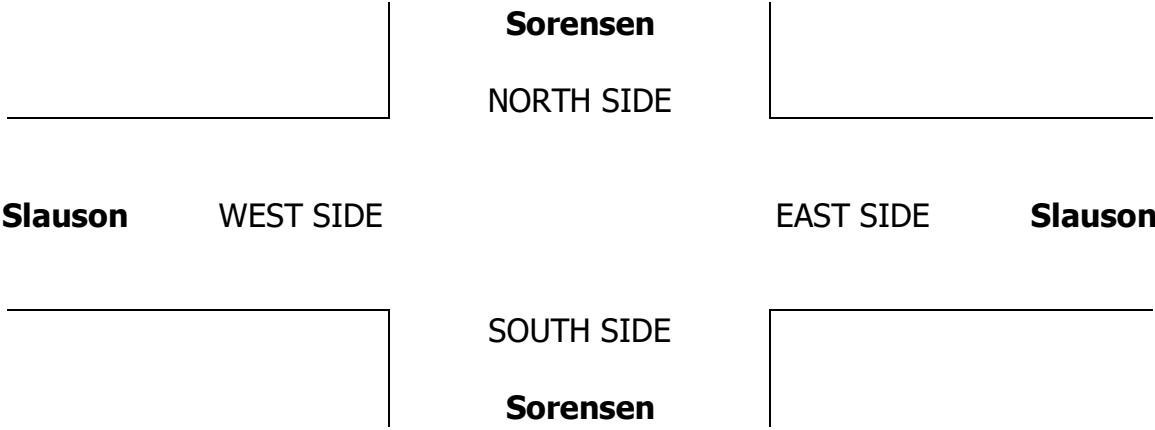
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Sorensen			Sorensen			Slauson			Slauson			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	0	0	0	0	0	0	1	0	0	2	
	7:15 AM	2	0	0	0	1	0	0	1	0	0	1	0	5
	7:30 AM	1	0	0	0	0	0	2	5	2	0	0	1	11
	7:45 AM	1	0	0	1	0	1	0	7	0	0	1	0	11
	8:00 AM	0	0	0	0	0	0	1	3	1	0	2	0	7
	8:15 AM	1	0	0	1	1	0	1	0	0	1	1	1	7
	8:30 AM	0	1	0	0	2	0	0	0	0	0	1	0	4
	8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
	VOLUMES	6	1	0	2	5	1	4	17	3	2	6	2	49
	APPROACH %	86%	14%	0%	25%	63%	13%	17%	71%	13%	20%	60%	20%	
APP/DEPART	7	/	6	8	/	10	24	/	19	10	/	14	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	4	0	0	1	1	1	2	16	3	0	4	1	34	
APPROACH %	100%	0%	0%	33%	33%	33%	9%	73%	14%	0%	80%	20%		
PEAK HR FACTOR	0.500			0.375			0.611			0.625			0.773	
APP/DEPART	4	/	3	3	/	4	22	/	17	5	/	10	0	
PM	04:00 PM	1	0	0	0	0	0	0	1	1	0	4	0	7
	4:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	4:30 PM	1	0	0	0	0	0	0	1	0	0	1	0	3
	4:45 PM	1	0	0	1	0	0	0	2	0	0	0	0	4
	5:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	3
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	4	0	0	1	1	2	0	7	1	0	7	1	24
	APPROACH %	100%	0%	0%	25%	25%	50%	0%	88%	13%	0%	88%	13%	
	APP/DEPART	4	/	1	4	/	2	8	/	8	8	/	13	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	2	0	0	1	0	2	0	5	0	0	3	0	13
	APPROACH %	100%	0%	0%	33%	0%	67%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.500			0.375			0.625			0.750			0.813	
APP/DEPART	2	/	0	3	/	0	5	/	6	3	/	7	0	

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Sorensen Slauson	PROJECT #: LOCATION #: CONTROL:	SC2721 2 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

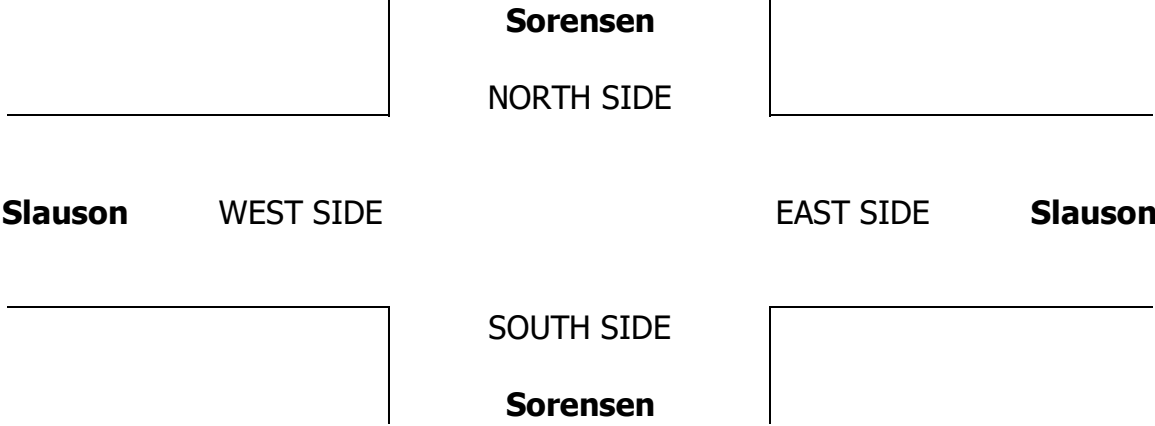
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Sorensen			Sorensen			Slauson			Slauson			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	2	0	1	0	1	0	6	0	0	2	0	13
	7:15 AM	5	0	1	0	0	0	1	6	2	0	3	0	18
	7:30 AM	0	2	0	2	0	1	0	5	2	1	1	0	14
	7:45 AM	3	2	0	0	0	0	1	6	3	0	4	0	19
	8:00 AM	1	0	0	0	2	1	1	2	5	0	7	1	20
	8:15 AM	4	1	0	0	1	0	0	7	4	1	2	0	20
	8:30 AM	5	4	0	0	0	2	1	6	3	0	4	1	26
	8:45 AM	3	3	2	0	1	2	1	5	3	0	5	0	25
	VOLUMES	22	14	3	3	4	7	5	43	22	2	28	2	155
	APPROACH %	56%	36%	8%	21%	29%	50%	7%	61%	31%	6%	88%	6%	
	APP/DEPART	39	/	21	14	/	28	70	/	49	32	/	57	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	9	4	1	2	2	2	3	19	12	1	15	1	71
	APPROACH %	64%	29%	7%	33%	33%	33%	9%	56%	35%	6%	88%	6%	
	PEAK HR FACTOR	0.583			0.500			0.850			0.531			0.888
	APP/DEPART	14	/	8	6	/	15	34	/	22	17	/	26	0
	04:00 PM	2	0	0	0	1	1	0	2	0	0	5	0	11
	4:15 PM	0	1	0	0	0	1	0	1	6	1	0	2	12
	4:30 PM	0	2	1	0	1	0	0	2	2	0	7	0	15
	4:45 PM	0	2	1	0	0	0	1	3	3	0	4	0	14
	5:00 PM	0	1	0	1	0	0	0	3	2	0	5	0	12
	5:15 PM	0	0	0	0	0	0	0	4	0	1	3	1	9
	5:30 PM	4	2	0	0	1	0	0	4	1	0	2	2	16
	5:45 PM	1	1	0	1	0	0	0	4	1	0	0	1	9
	VOLUMES	7	9	2	2	3	2	1	23	15	2	26	6	98
	APPROACH %	39%	50%	11%	29%	43%	29%	3%	59%	38%	6%	76%	18%	
	APP/DEPART	18	/	16	7	/	20	39	/	27	34	/	35	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	6	2	1	1	1	1	9	13	1	16	2	53
	APPROACH %	0%	75%	25%	33%	33%	33%	4%	39%	57%	5%	84%	11%	
	PEAK HR FACTOR	0.667			0.750			0.821			0.679			0.883
	APP/DEPART	8	/	9	3	/	15	23	/	12	19	/	17	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Sorensen  
Slauson

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
2  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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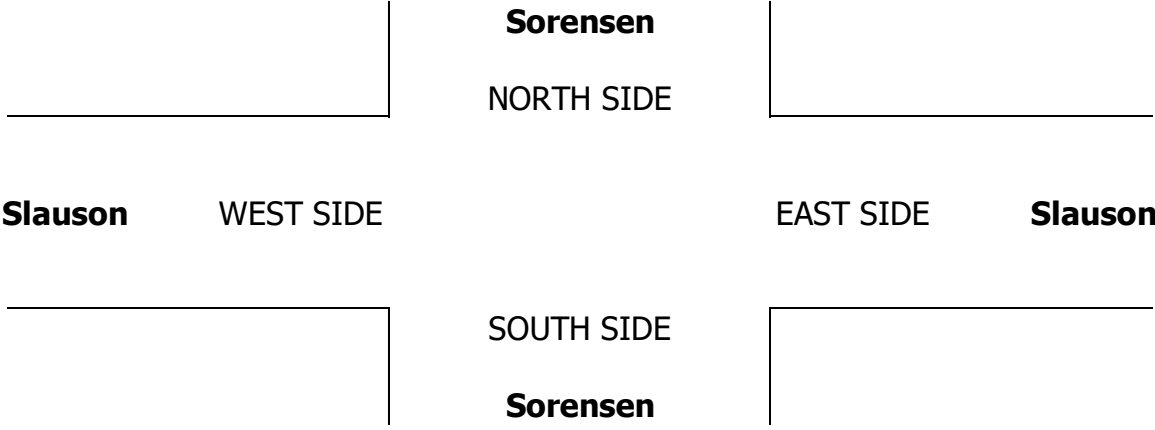
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Sorensen			Sorensen			Slauson			Slauson			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<div>DATE: 4/20/21 TUESDAY</div>	<div>LOCATION: NORTH &amp; SOUTH: EAST &amp; WEST:</div>	<div>Santa Fe Springs Sorensen Slauson</div>	<div>PROJECT #: LOCATION #: CONTROL:</div>	<div>SC2721 2 SIGNAL</div>		
<div>CLASS 6:</div>	<div>NOTES:</div>		<div>AM PM MD OTHER OTHER</div>	<div><div></div><div>◀ W</div><div></div></div>	<div><div>▲ N  S ▼</div></div>	<div><div></div><div>E ▶</div><div></div></div>
<div>BUSES</div>						

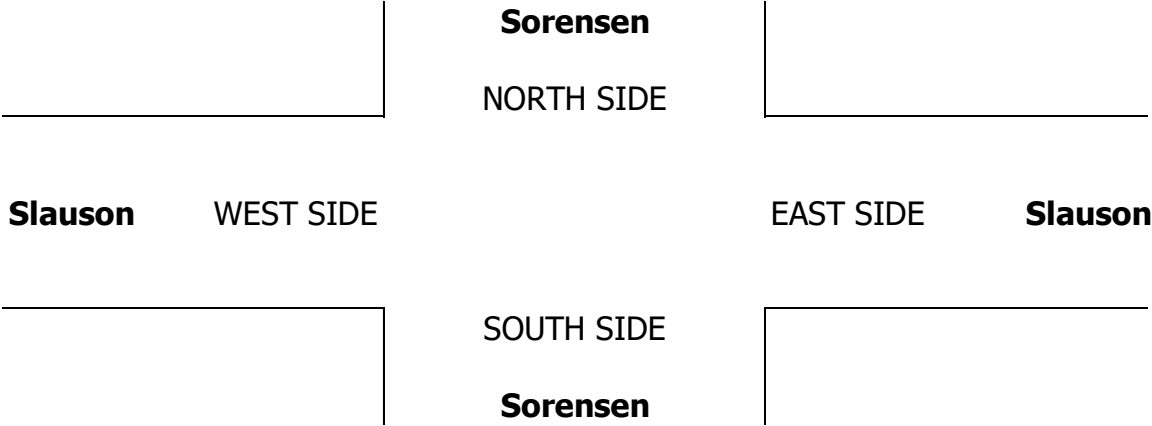
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Sorensen			Sorensen			Slauson			Slauson			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	
	7:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	
	7:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	
	7:45 AM	0	0	0	0	0	0	0	0	1	0	1	3	
	8:00 AM	0	0	0	0	0	0	0	2	0	0	1	4	
	8:15 AM	0	0	0	0	0	0	0	3	0	0	0	3	
	8:30 AM	0	0	0	0	0	0	0	2	0	0	0	2	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	VOLUMES	0	0	0	1	0	0	0	7	1	0	5	2	16
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	88%	13%	0%	71%	29%	
APP/DEPART	0	/	2	1	/	1	8	/	8	7	/	5	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	0	0	1	0	0	0	2	1	0	4	2	10	
APPROACH %	0%	0%	0%	100%	0%	0%	0%	67%	33%	0%	67%	33%		
PEAK HR FACTOR	0.000			0.250			0.375			0.750			0.625	
APP/DEPART	0	/	2	1	/	1	3	/	3	6	/	4	0	
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	VOLUMES	0	0	0	1	0	0	0	2	0	0	1	0	4
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	2	/	3	1	/	1	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	0	0	1	0	0	0	2	0	0	1	0	4
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.250			0.500			0.250			0.500	
APP/DEPART	0	/	0	1	/	0	2	/	3	1	/	1	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Los Nietos

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
3  
SIGNAL

NOTES:

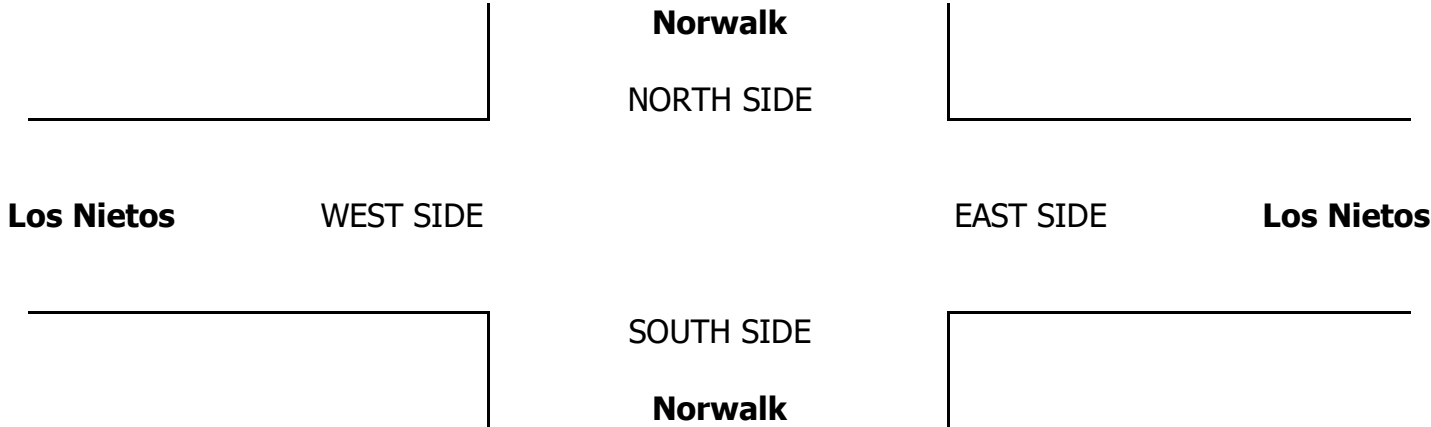
AM  
PM  
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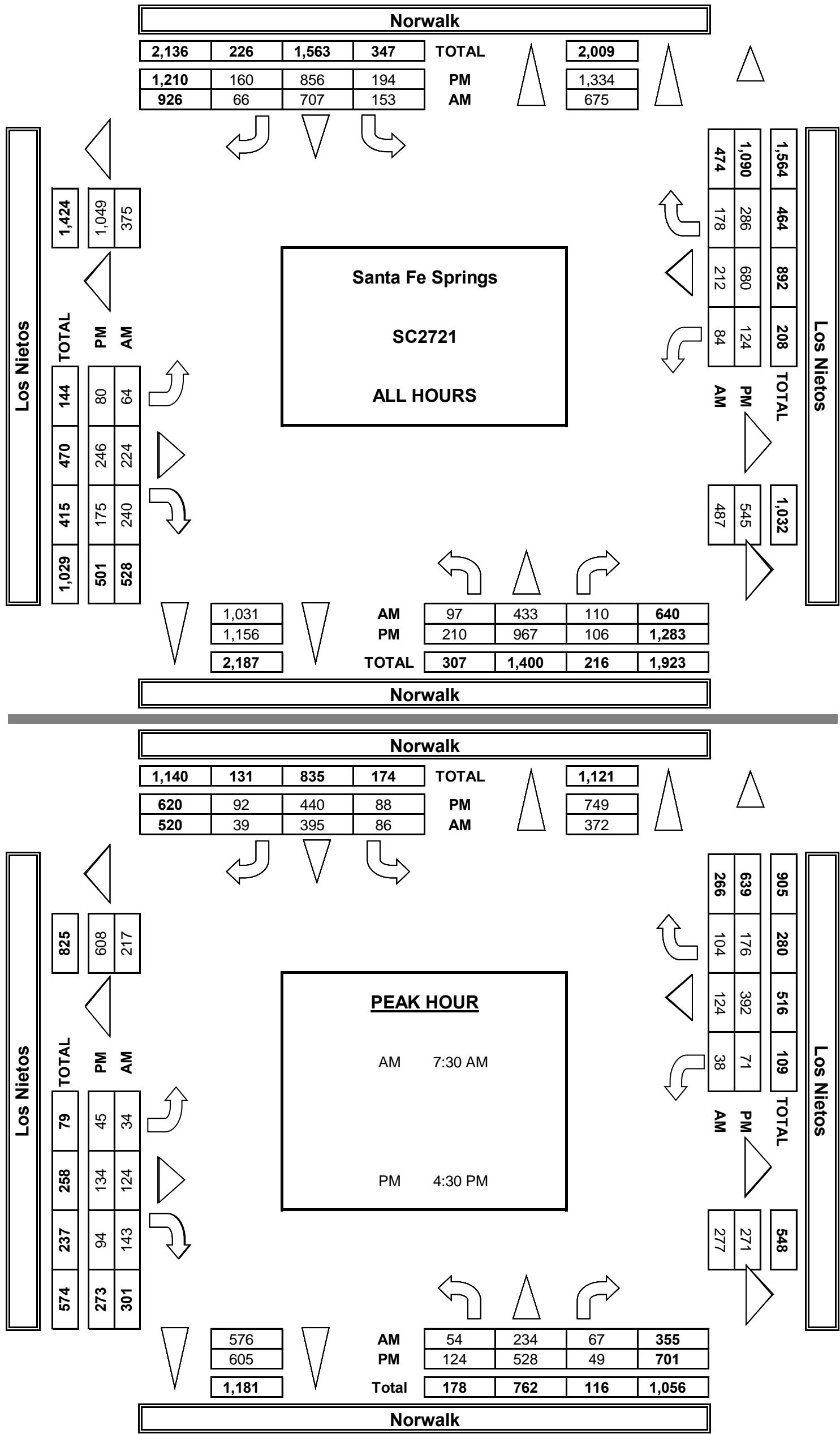
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Norwalk			Norwalk			Los Nietos			Los Nietos				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	0	0	0	0	
AM	7:00 AM	9	35	12	16	58	5	9	30	46	9	23	19	271	0	0	0	0	0
	7:15 AM	10	42	13	20	101	5	5	23	22	12	18	16	287	0	0	0	0	0
	7:30 AM	8	57	14	21	100	11	9	12	25	8	30	19	314	0	0	0	0	0
	7:45 AM	15	57	20	31	115	11	5	50	55	8	39	31	437	0	0	0	0	0
	8:00 AM	9	62	15	17	100	9	10	35	30	11	30	32	360	0	0	0	0	0
	8:15 AM	22	58	18	17	80	8	10	27	33	11	25	22	331	0	0	0	0	0
	8:30 AM	11	60	5	14	77	6	8	23	15	11	26	20	276	0	0	0	0	0
	8:45 AM	13	62	13	17	76	11	8	24	14	14	21	19	292	0	0	0	0	0
	VOLUMES	97	433	110	153	707	66	64	224	240	84	212	178	2,568	0	0	0	0	0
	APPROACH %	15%	68%	17%	17%	76%	7%	12%	42%	45%	18%	45%	38%						
APP/DEPART	640	/	675	926	/	1,031	528	/	487	474	/	375	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	54	234	67	86	395	39	34	124	143	38	124	104	1,442						
APPROACH %	15%	66%	19%	17%	76%	8%	11%	41%	48%	14%	47%	39%							
PEAK HR FACTOR	0.906			0.828			0.684			0.853			0.825						
APP/DEPART	355	/	372	520	/	576	301	/	277	266	/	217	0						
PM	04:00 PM	21	147	19	24	119	17	7	27	17	16	85	40	539	1	1	0	0	2
	4:15 PM	29	98	21	28	95	21	12	23	22	21	82	25	477	0	0	0	0	0
	4:30 PM	34	164	12	32	129	28	9	37	21	25	111	59	661	0	0	0	0	0
	4:45 PM	24	113	14	18	86	20	9	29	20	11	68	29	441	0	0	0	0	0
	5:00 PM	38	143	17	17	129	31	18	42	34	22	113	45	649	0	0	0	0	0
	5:15 PM	28	108	6	21	96	13	9	26	19	13	100	43	482	0	0	0	0	0
	5:30 PM	23	108	6	25	115	14	8	27	26	9	70	26	457	0	0	0	0	0
	5:45 PM	13	86	11	29	87	16	8	35	16	7	51	19	378	0	0	0	0	0
	VOLUMES	210	967	106	194	856	160	80	246	175	124	680	286	4,084	1	1	0	0	2
	APPROACH %	16%	75%	8%	16%	71%	13%	16%	49%	35%	11%	62%	26%						
APP/DEPART	1,283	/	1,334	1,210	/	1,156	501	/	545	1,090	/	1,049	0						
BEGIN PEAK HR	4:30 PM																		
VOLUMES	124	528	49	88	440	92	45	134	94	71	392	176	2,233						
APPROACH %	18%	75%	7%	14%	71%	15%	16%	49%	34%	11%	61%	28%							
PEAK HR FACTOR	0.835			0.820			0.726			0.819			0.845						
APP/DEPART	701	/	749	620	/	605	273	/	271	639	/	608	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	1	1	2	0	0	0	1	1	0	0	1	0	1
	8:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	8:15 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	8:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		1	0	2	3	6	0	0	1	2	3	1	0	1	1	3
PM	4:00 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	4:15 PM	0	1	3	3	7	0	1	2	3	6	0	0	1	0	1
	4:30 PM	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2
	4:45 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	2	1	0	3	0	1	1	0	2	0	1	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	1	2	0	0	0	1	1	1	0	0	0	1	
TOTAL		2	4	6	4	16	0	2	4	4	10	2	2	2	0	6

AimTD LLC  
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

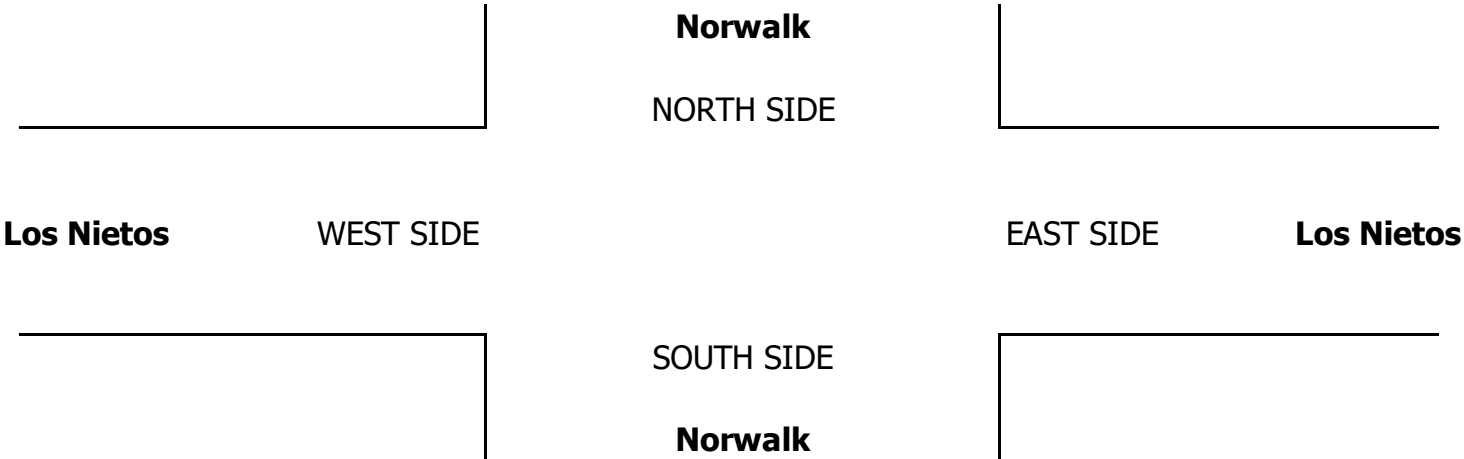
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 3 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Los Nietos			Los Nietos				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					

AM	7:00 AM	15	50	17	19	60	6	14	37	65	13	27	21	341					0
	7:15 AM	14	49	16	23	110	8	9	25	22	16	21	22	332					0
	7:30 AM	9	65	19	22	115	14	18	14	32	10	37	20	373					0
	7:45 AM	18	72	25	39	133	11	9	56	69	13	50	39	530					0
	8:00 AM	16	73	21	21	121	10	12	40	37	15	34	39	436					0
	8:15 AM	30	72	22	20	91	8	17	34	33	18	29	28	400					0
	8:30 AM	18	80	8	21	91	6	14	26	21	12	33	23	351					0
	8:45 AM	15	75	17	21	91	12	12	26	20	21	29	29	364					0
	VOLUMES	133	534	143	184	811	73	104	256	297	116	259	219	3,126	0	0	0	0	0
	APPROACH %	16%	66%	18%	17%	76%	7%	16%	39%	45%	19%	44%	37%						
	APP/DEPART	809	/	857	1,067	/	1,223	657	/	582	593	/	464	0					
	BEGIN PEAK HR	7:30 AM																	
	VOLUMES	72	282	86	101	459	43	56	143	170	55	149	125	1,739					
	APPROACH %	16%	64%	20%	17%	76%	7%	15%	39%	46%	17%	45%	38%						
PM	PEAK HR FACTOR	0.890			0.827			0.692			0.814			0.820					
	APP/DEPART	440	/	462	602	/	684	368	/	330	329	/	264	0					
	04:00 PM	25	162	25	30	134	18	9	30	25	25	92	48	620					0
	4:15 PM	33	112	26	37	110	21	13	25	32	25	89	31	552					0
	4:30 PM	39	185	13	36	147	28	12	43	31	32	121	63	746					0
	4:45 PM	27	122	16	20	98	20	13	31	26	12	72	32	487					0
	5:00 PM	42	159	20	18	143	32	20	50	47	27	115	49	720					0
	5:15 PM	29	114	6	23	102	13	9	28	23	15	104	46	511					0
	5:30 PM	28	115	6	28	126	14	8	31	32	11	73	31	501					0
	5:45 PM	14	97	13	31	89	16	8	40	33	11	58	22	430					0
	VOLUMES	235	1,063	124	221	947	161	91	277	248	157	722	321	4,565	0	0	0	0	0
	APPROACH %	16%	75%	9%	17%	71%	12%	15%	45%	40%	13%	60%	27%						
	APP/DEPART	1,422	/	1,475	1,329	/	1,351	616	/	622	1,199	/	1,118	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	136	579	55	96	489	93	54	151	126	85	412	190	2,463					
	APPROACH %	18%	75%	7%	14%	72%	14%	16%	46%	38%	12%	60%	28%						
	PEAK HR FACTOR	0.815			0.806			0.706			0.798			0.826					
	APP/DEPART	769	/	822	677	/	700	331	/	302	686	/	640	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 3 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

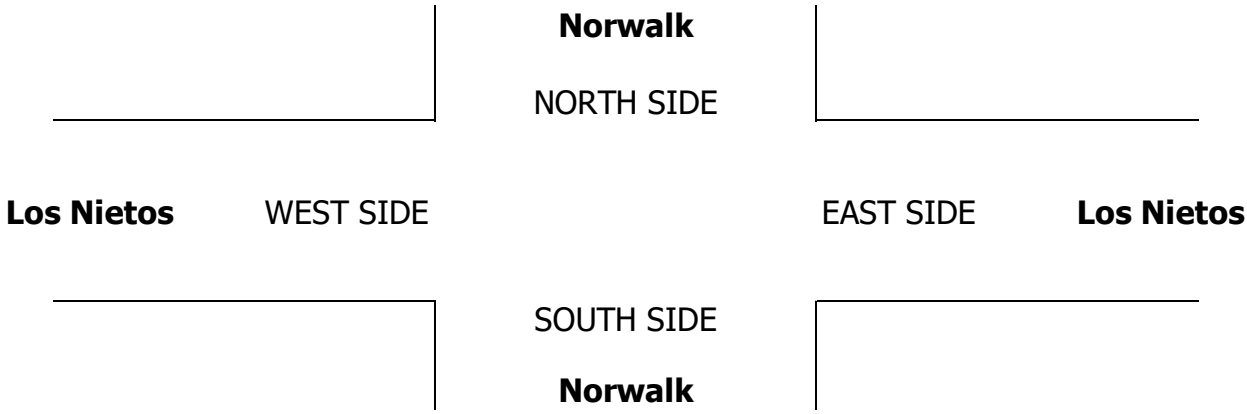
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	5	22	9	13	56	4	6	21	33	6	16	15	206
	7:15 AM	7	34	10	18	90	3	3	21	22	7	13	11	239
	7:30 AM	7	47	9	19	83	9	4	8	19	4	23	17	249
	7:45 AM	12	40	16	24	99	11	3	45	44	4	30	22	350
	8:00 AM	5	48	11	13	80	7	9	30	26	9	25	26	289
	8:15 AM	16	45	15	15	69	8	6	22	33	6	19	16	270
	8:30 AM	5	40	3	9	60	6	4	20	11	10	18	16	202
	8:45 AM	11	48	7	13	59	10	5	21	8	9	14	11	216
	VOLUMES	68	324	80	124	596	58	40	188	196	55	158	134	2,021
	APPROACH %	14%	69%	17%	16%	77%	7%	9%	44%	46%	16%	46%	39%	
	APP/DEPART	472	/	498	778	/	847	424	/	392	347	/	284	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	40	180	51	71	331	35	22	105	122	23	97	81	1,158
	APPROACH %	15%	66%	19%	16%	76%	8%	9%	42%	49%	11%	48%	40%	
	PEAK HR FACTOR	0.891			0.815			0.677			0.838			0.827
	APP/DEPART	271	/	283	437	/	476	249	/	227	201	/	172	0
PM	04:00 PM	17	133	16	19	105	16	5	22	8	11	78	33	463
	4:15 PM	26	84	18	21	79	21	11	19	14	17	74	19	403
	4:30 PM	31	144	10	26	113	28	7	28	14	19	99	55	574
	4:45 PM	21	105	13	17	77	20	7	26	14	10	65	26	401
	5:00 PM	35	130	15	16	118	30	17	34	26	19	109	40	589
	5:15 PM	27	102	6	20	89	13	9	24	16	12	95	40	453
	5:30 PM	20	104	6	22	104	14	8	23	21	8	68	23	421
	5:45 PM	12	79	10	26	83	16	8	31	7	4	44	17	337
	VOLUMES	189	881	94	167	768	158	72	207	120	100	632	253	3,641
	APPROACH %	16%	76%	8%	15%	70%	14%	18%	52%	30%	10%	64%	26%	
	APP/DEPART	1,164	/	1,207	1,093	/	989	399	/	467	985	/	978	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	114	481	44	79	397	91	40	112	70	60	368	161	2,017
	APPROACH %	18%	75%	7%	14%	70%	16%	18%	50%	32%	10%	62%	27%	
	PEAK HR FACTOR	0.864			0.849			0.721			0.851			0.856
	APP/DEPART	639	/	682	567	/	527	222	/	235	589	/	573	0

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1	1	0	0	2
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0	0	0	0	0
1	1	0	0	2





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 3 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

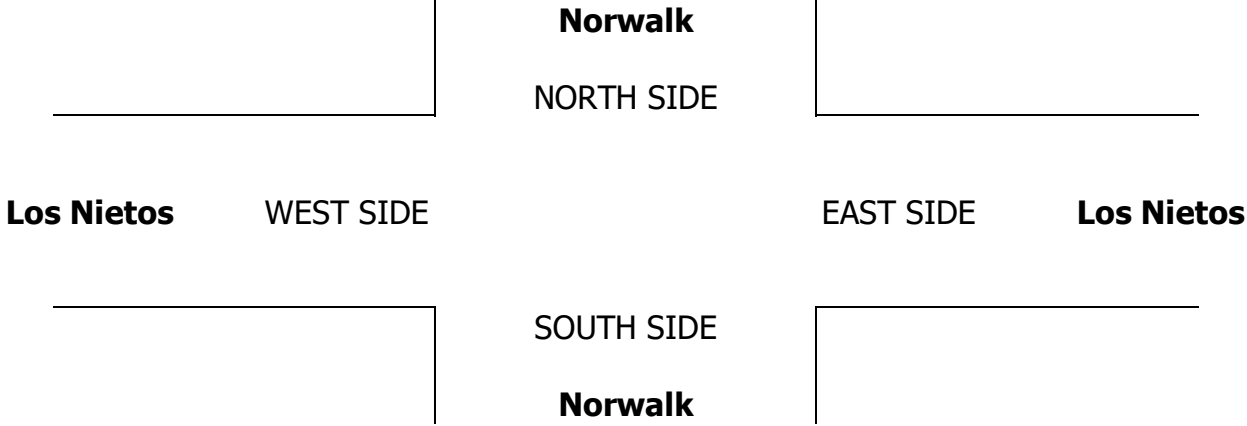
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	7	1	2	1	1	0	6	2	1	7	4	33
	7:15 AM	1	5	2	1	8	1	0	1	0	4	4	3	30
	7:30 AM	0	6	2	2	11	1	1	4	1	4	5	2	39
	7:45 AM	1	11	2	3	9	0	0	3	5	1	3	4	42
	8:00 AM	1	10	1	3	10	2	0	3	1	0	4	3	38
	8:15 AM	2	6	1	1	6	0	0	2	0	1	4	3	26
	8:30 AM	2	11	1	2	12	0	1	2	1	1	6	2	41
	8:45 AM	1	9	5	3	12	1	0	3	4	1	4	3	46
	VOLUMES	9	65	15	17	69	6	2	24	14	13	37	24	295
	APPROACH %	10%	73%	17%	18%	75%	7%	5%	60%	35%	18%	50%	32%	
	APP/DEPART	89	/	91	92	/	96	40	/	56	74	/	52	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	4	33	6	9	36	3	1	12	7	6	16	12	145
	APPROACH %	9%	77%	14%	19%	75%	6%	5%	60%	35%	18%	47%	35%	
	PEAK HR FACTOR	0.768			0.800			0.625			0.773			0.863
	APP/DEPART	43	/	46	48	/	49	20	/	27	34	/	23	0
PM	04:00 PM	3	7	0	3	9	1	1	4	4	0	5	2	39
	4:15 PM	1	9	1	3	10	0	0	4	4	2	6	2	42
	4:30 PM	1	11	2	5	9	0	1	7	3	3	8	1	51
	4:45 PM	2	4	0	0	3	0	0	2	3	1	1	2	18
	5:00 PM	1	5	1	1	4	1	0	4	2	0	4	4	27
	5:15 PM	0	3	0	0	5	0	0	1	0	0	4	2	15
	5:30 PM	0	1	0	2	7	0	0	2	2	0	1	1	16
	5:45 PM	1	2	0	2	4	0	0	2	1	1	5	1	19
	VOLUMES	9	42	4	16	51	2	2	26	19	7	34	15	227
	APPROACH %	16%	76%	7%	23%	74%	3%	4%	55%	40%	13%	61%	27%	
	APP/DEPART	55	/	59	69	/	77	47	/	46	56	/	45	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	4	23	3	6	21	1	1	14	8	4	17	9	111
	APPROACH %	13%	77%	10%	21%	75%	4%	4%	61%	35%	13%	57%	30%	
	PEAK HR FACTOR	0.536			0.500			0.523			0.625			0.544
	APP/DEPART	30	/	33	28	/	33	23	/	23	30	/	22	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

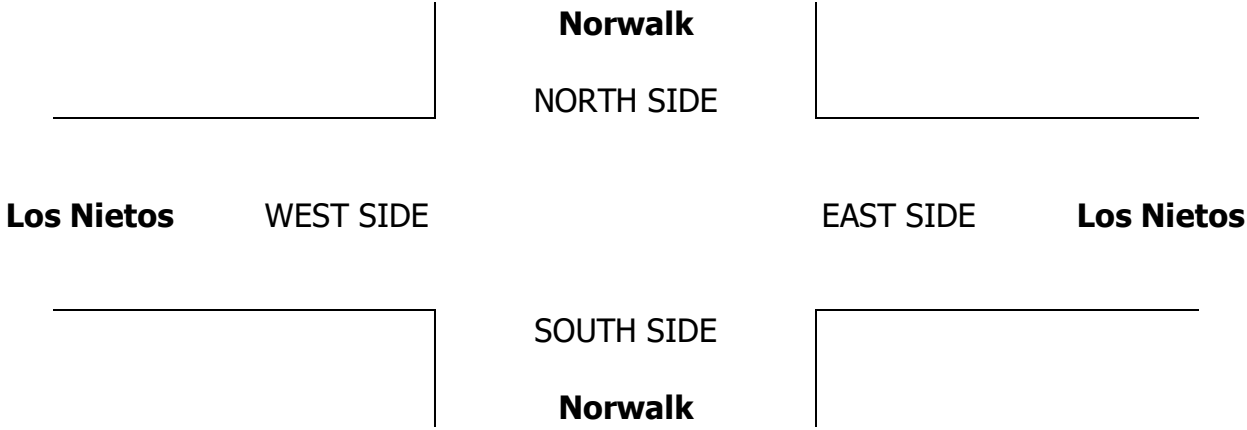
DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 3 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

AM	7:00 AM	1	1	0	0	1	0	1	2	4	1	0	0	11
	7:15 AM	1	2	0	0	1	0	0	1	0	0	1	0	6
	7:30 AM	1	3	1	0	3	0	0	0	4	0	0	0	12
	7:45 AM	2	3	0	2	1	0	0	0	1	2	3	4	18
	8:00 AM	0	2	1	0	4	0	0	1	0	0	0	1	9
	8:15 AM	1	3	1	0	2	0	1	0	0	2	2	2	14
	8:30 AM	2	4	0	0	2	0	1	0	1	0	0	2	12
	8:45 AM	1	2	1	0	1	0	2	0	0	2	0	2	11
	VOLUMES	9	20	4	2	15	0	5	4	10	7	6	11	93
	APPROACH %	27%	61%	12%	12%	88%	0%	26%	21%	53%	29%	25%	46%	
	APP/DEPART	33	/	36	17	/	32	19	/	10	24	/	15	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	4	11	3	2	10	0	1	1	5	4	5	7	53
	APPROACH %	22%	61%	17%	17%	83%	0%	14%	14%	71%	25%	31%	44%	
	PEAK HR FACTOR	0.900			0.750			0.438			0.444			0.736
	APP/DEPART	18	/	19	12	/	19	7	/	6	16	/	9	0
	04:00 PM	0	3	0	0	0	0	1	1	4	1	0	3	13
	4:15 PM	1	1	0	1	2	0	1	0	0	1	0	3	10
	4:30 PM	0	3	0	1	1	0	0	2	0	1	2	3	13
PM	4:45 PM	0	1	0	0	2	0	0	1	2	0	1	0	7
	5:00 PM	1	3	0	0	2	0	0	2	0	1	0	0	9
	5:15 PM	1	2	0	0	1	0	0	1	2	0	0	0	7
	5:30 PM	1	0	0	0	1	0	0	1	1	0	0	0	4
	5:45 PM	0	0	0	1	0	0	0	0	0	1	0	0	2
	VOLUMES	4	13	0	3	9	0	2	8	9	5	3	9	65
	APPROACH %	24%	76%	0%	25%	75%	0%	11%	42%	47%	29%	18%	53%	
	APP/DEPART	17	/	24	12	/	23	19	/	11	17	/	7	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	2	9	0	1	6	0	0	6	4	2	3	3	36
	APPROACH %	18%	82%	0%	14%	86%	0%	0%	60%	40%	25%	38%	38%	
	PEAK HR FACTOR	0.688			0.875			0.833			0.333			0.692
	APP/DEPART	11	/	12	7	/	12	10	/	7	8	/	5	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 3 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

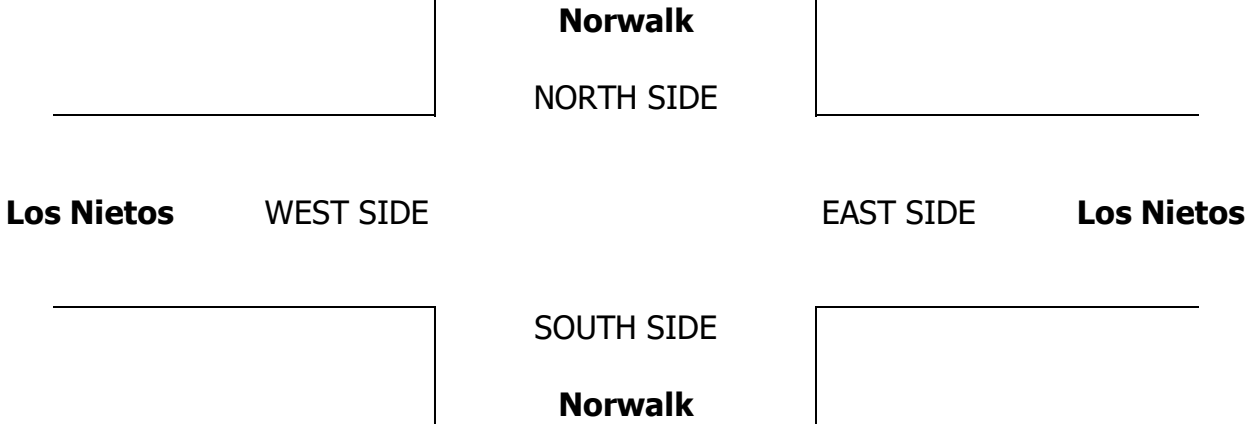
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	5	2	1	0	0	2	1	7	1	0	0	21
	7:15 AM	1	1	1	1	2	1	2	0	0	1	0	2	12
	7:30 AM	0	1	1	0	3	1	4	0	1	0	2	0	13
	7:45 AM	0	3	2	2	6	0	2	2	5	1	3	1	27
	8:00 AM	3	2	2	1	6	0	1	1	3	2	1	2	24
	8:15 AM	3	4	1	1	3	0	3	3	0	2	0	1	21
	8:30 AM	2	5	1	3	3	0	2	1	2	0	2	0	21
	8:45 AM	0	3	0	1	4	0	1	0	2	2	3	3	19
	VOLUMES	11	24	10	10	27	2	17	8	20	9	11	9	158
	APPROACH %	24%	53%	22%	26%	69%	5%	38%	18%	44%	31%	38%	31%	
	APP/DEPART	45	/	50	39	/	56	45	/	28	29	/	24	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	6	10	6	4	18	1	10	6	9	5	6	4	85
PM	APPROACH %	27%	45%	27%	17%	78%	4%	40%	24%	36%	33%	40%	27%	
	PEAK HR FACTOR	0.688			0.719			0.694			0.750			0.787
	APP/DEPART	22	/	24	23	/	32	25	/	16	15	/	13	0
	04:00 PM	1	4	3	2	5	0	0	0	1	4	2	2	24
	4:15 PM	1	4	2	3	4	0	0	0	4	1	2	1	22
	4:30 PM	2	6	0	0	6	0	1	0	4	2	2	0	23
	4:45 PM	1	3	1	1	4	0	2	0	1	0	1	1	15
	5:00 PM	1	5	1	0	5	0	1	2	6	2	0	1	24
	5:15 PM	0	1	0	1	1	0	0	0	1	1	1	1	7
	5:30 PM	2	3	0	1	3	0	0	1	2	1	1	2	16
	5:45 PM	0	5	1	0	0	0	0	2	8	1	2	1	20
	VOLUMES	8	31	8	8	28	0	4	5	27	12	11	9	151
	APPROACH %	17%	66%	17%	22%	78%	0%	11%	14%	75%	38%	34%	28%	
	APP/DEPART	47	/	44	36	/	67	36	/	21	32	/	19	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	4	15	2	2	16	0	4	2	12	5	4	3	69
	APPROACH %	19%	71%	10%	11%	89%	0%	22%	11%	67%	42%	33%	25%	
	PEAK HR FACTOR	0.656			0.750			0.500			0.750			0.719
	APP/DEPART	21	/	22	18	/	33	18	/	6	12	/	8	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Los Nietos

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
3  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
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OTHER

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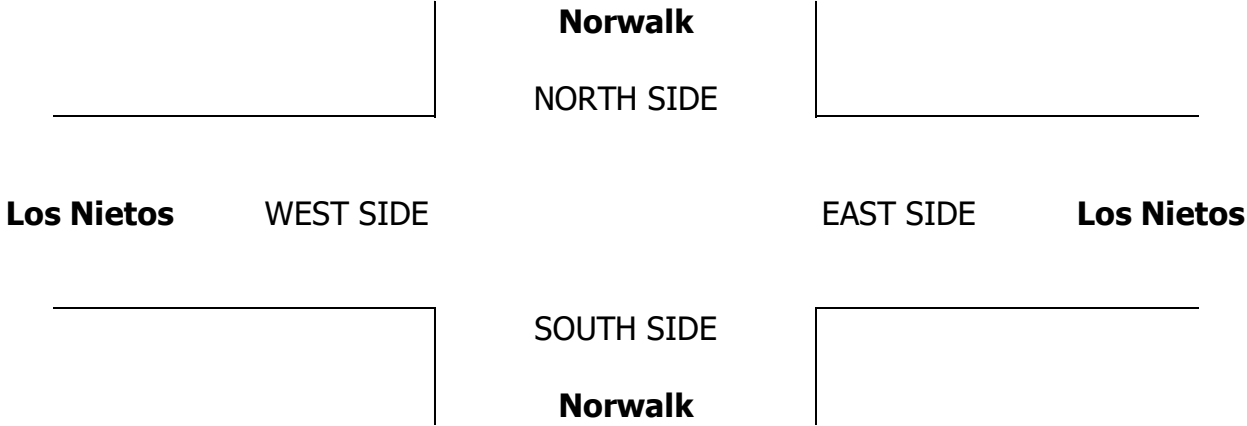
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	1
PM	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.000		
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Los Nietos

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
3  
SIGNAL

CLASS 6:

NOTES:

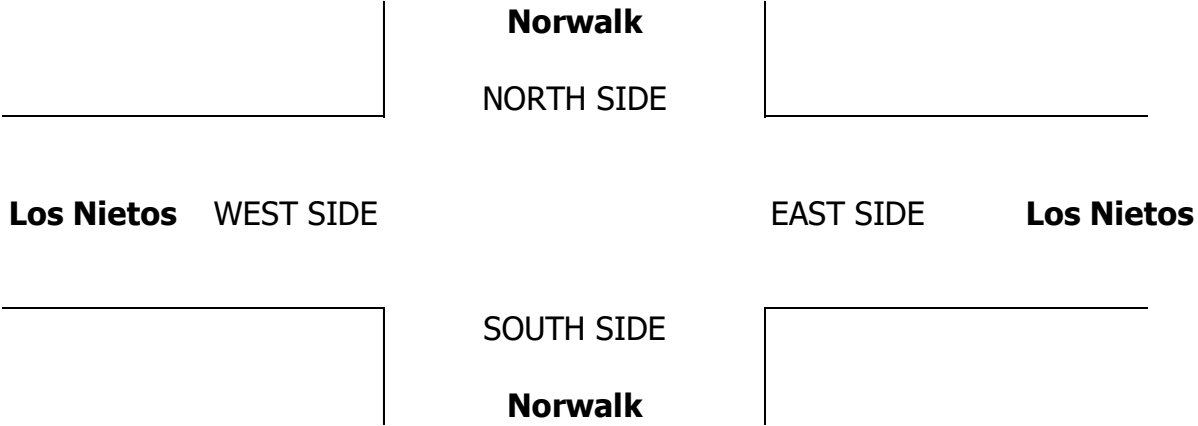
AM  
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OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Los Nietos			Los Nietos				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0	0	0	0	0
	BEGIN PEAK HR	7:30 AM																
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0	0	0	0	0
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000				
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0	0	0	0	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0	0	0	0	0
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000				
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Santa Fe Springs  
Los Nietos

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
4  
SIGNAL

NOTES:

AM  
PM  
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OTHER

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☒ Add U-Turns to Left Turns

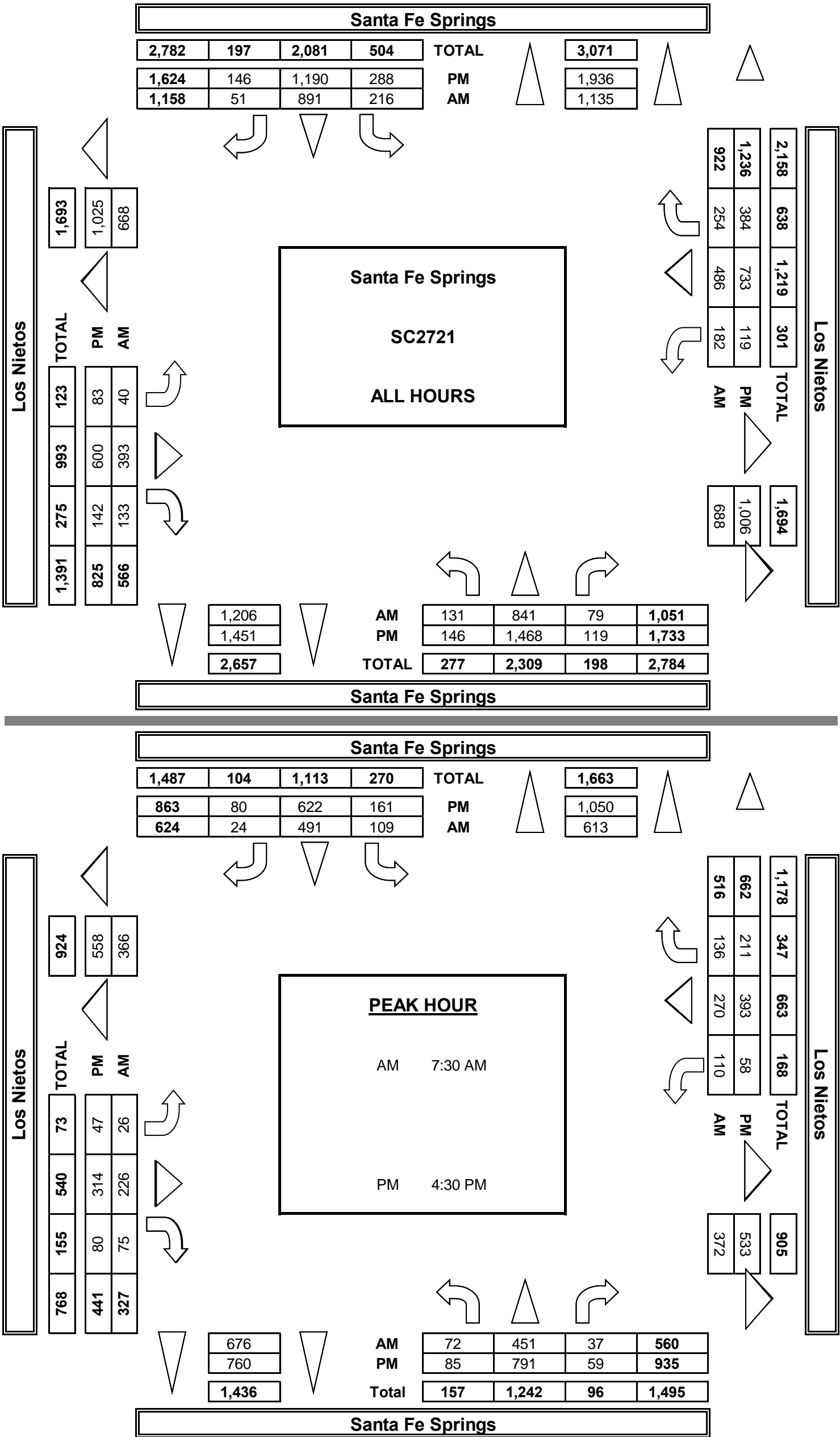
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Santa Fe Springs			Santa Fe Springs			Los Nietos			Los Nietos				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL	0	0	0	0	
AM	7:00 AM	13	87	7	18	128	8	2	39	18	19	62	28	429	0	0	0	0	0
	7:15 AM	17	82	16	26	133	9	3	42	21	20	56	25	450	0	0	0	0	0
	7:30 AM	18	95	1	20	136	5	5	48	21	20	64	24	457	0	0	0	0	0
	7:45 AM	27	122	12	38	162	8	7	89	20	26	68	37	616	0	0	0	0	0
	8:00 AM	13	128	10	21	113	8	8	43	15	25	80	37	501	0	0	0	0	0
	8:15 AM	14	106	14	30	80	3	6	46	19	39	58	38	453	0	0	0	0	0
	8:30 AM	13	106	7	31	98	7	5	37	7	11	53	27	402	0	0	0	0	0
	8:45 AM	16	115	12	32	41	3	4	49	12	22	45	38	389	0	0	0	0	0
	VOLUMES	131	841	79	216	891	51	40	393	133	182	486	254	3,697	0	0	0	0	0
	APPROACH %	12%	80%	8%	19%	77%	4%	7%	69%	23%	20%	53%	28%						
APP/DEPART	1,051	/	1,135	1,158	/	1,206	566	/	688	922	/	668	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	72	451	37	109	491	24	26	226	75	110	270	136	2,027						
APPROACH %	13%	81%	7%	17%	79%	4%	8%	69%	23%	21%	52%	26%							
PEAK HR FACTOR	0.870			0.750			0.705			0.908			0.823						
APP/DEPART	560	/	613	624	/	676	327	/	372	516	/	366	0						
PM	04:00 PM	20	180	15	36	148	21	9	75	11	16	102	55	688	0	0	0	0	0
	4:15 PM	15	181	17	30	132	19	8	75	12	13	87	45	634	0	0	0	0	0
	4:30 PM	23	205	20	46	162	18	16	80	28	14	116	58	786	0	1	0	0	1
	4:45 PM	17	195	8	45	130	15	11	70	17	9	76	54	647	0	0	0	0	0
	5:00 PM	19	209	20	33	184	25	15	89	31	16	106	56	803	0	0	0	0	0
	5:15 PM	26	182	11	37	146	22	5	75	4	19	95	43	665	0	0	0	0	0
	5:30 PM	16	191	14	31	153	12	9	56	18	23	79	36	638	0	0	0	0	0
	5:45 PM	10	125	14	30	135	14	10	80	21	9	72	37	557	0	0	0	0	0
	VOLUMES	146	1,468	119	288	1,190	146	83	600	142	119	733	384	5,418	0	1	0	0	1
	APPROACH %	8%	85%	7%	18%	73%	9%	10%	73%	17%	10%	59%	31%						
APP/DEPART	1,733	/	1,936	1,624	/	1,451	825	/	1,006	1,236	/	1,025	0						
BEGIN PEAK HR	4:30 PM																		
VOLUMES	85	791	59	161	622	80	47	314	80	58	393	211	2,901						
APPROACH %	9%	85%	6%	19%	72%	9%	11%	71%	18%	9%	59%	32%							
PEAK HR FACTOR	0.943			0.892			0.817			0.880			0.903						
APP/DEPART	935	/	1,050	863	/	760	441	/	533	662	/	558	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	2	1	0	3	0	2	1	0	3	0	0	0	0	0
	7:15 AM	1	0	0	1	2	0	0	0	1	1	1	0	0	0	1
	7:30 AM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:30 AM	1	0	1	0	2	0	0	0	0	0	1	0	1	0	2
	8:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
TOTAL		4	5	3	1	13	1	5	2	1	9	3	0	1	0	4
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	2	1	0	3	0	1	0	0	1	0	1	1	0	2
	4:30 PM	2	1	2	3	8	1	0	1	2	4	1	1	1	1	4
	4:45 PM	0	1	1	1	3	0	1	1	1	3	0	0	0	0	0
	5:00 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:30 PM	1	1	0	1	3	1	0	0	1	2	0	1	0	0	1
5:45 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	
TOTAL		4	6	6	5	21	2	2	4	4	12	2	4	2	1	9



**AimTD LLC**  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 4 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Santa Fe Springs			Santa Fe Springs			Los Nietos			Los Nietos				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL					

AM	7:00 AM	14	90	9	26	138	9	3	46	25	24	72	30	484					0
	7:15 AM	21	86	18	30	149	10	5	46	26	21	69	31	508					0
	7:30 AM	20	100	1	22	147	5	5	55	26	20	81	25	505					0
	7:45 AM	32	131	13	39	177	9	9	103	27	28	82	41	689					0
	8:00 AM	13	140	10	24	123	10	8	45	17	26	85	40	540					0
	8:15 AM	17	113	16	35	97	4	7	54	26	45	65	44	520					0
	8:30 AM	16	117	8	38	109	7	6	45	10	11	61	28	454					0
	8:45 AM	24	131	14	35	55	5	4	59	16	23	54	43	462					0
	VOLUMES	155	907	88	247	994	59	46	451	171	197	567	280	4,160	0	0	0	0	0
	APPROACH %	13%	79%	8%	19%	76%	5%	7%	67%	26%	19%	54%	27%						
APP/DEPART	1,150	/	1,233	1,299	/	1,362	668	/	786	1,044	/	780	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	82	483	40	119	544	28	29	256	95	119	311	149	2,253						
APPROACH %	13%	80%	7%	17%	79%	4%	8%	67%	25%	21%	54%	26%							
PEAK HR FACTOR	0.860			0.767			0.686			0.945			0.817						
APP/DEPART	604	/	661	691	/	758	380	/	415	579	/	421	0						
PM	04:00 PM	22	198	17	38	154	24	13	85	11	17	119	61	757					0
	4:15 PM	18	192	19	35	148	21	9	84	17	14	101	47	702					0
	4:30 PM	25	220	21	48	170	19	17	88	29	15	133	63	844					0
	4:45 PM	17	211	9	48	141	16	12	77	17	10	84	56	697					0
	5:00 PM	20	218	20	34	196	26	18	99	31	17	111	59	846					0
	5:15 PM	29	191	11	41	153	23	6	85	4	21	98	46	707					0
	5:30 PM	18	201	15	32	157	12	9	64	18	25	81	42	672					0
	5:45 PM	11	130	15	31	148	15	11	85	23	11	83	41	603					0
	VOLUMES	159	1,560	126	306	1,264	156	93	666	149	129	808	414	5,827	0	0	0	0	0
	APPROACH %	9%	85%	7%	18%	73%	9%	10%	73%	16%	10%	60%	31%						
	APP/DEPART	1,845	/	2,067	1,725	/	1,542	907	/	1,097	1,350	/	1,122	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	90	839	61	171	659	84	52	349	81	62	425	224	3,093					
	APPROACH %	9%	85%	6%	19%	72%	9%	11%	73%	17%	9%	60%	31%						
PEAK HR FACTOR	0.935			0.895			0.814			0.844			0.914						
APP/DEPART	990	/	1,114	913	/	801	481	/	580	711	/	599	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 4 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

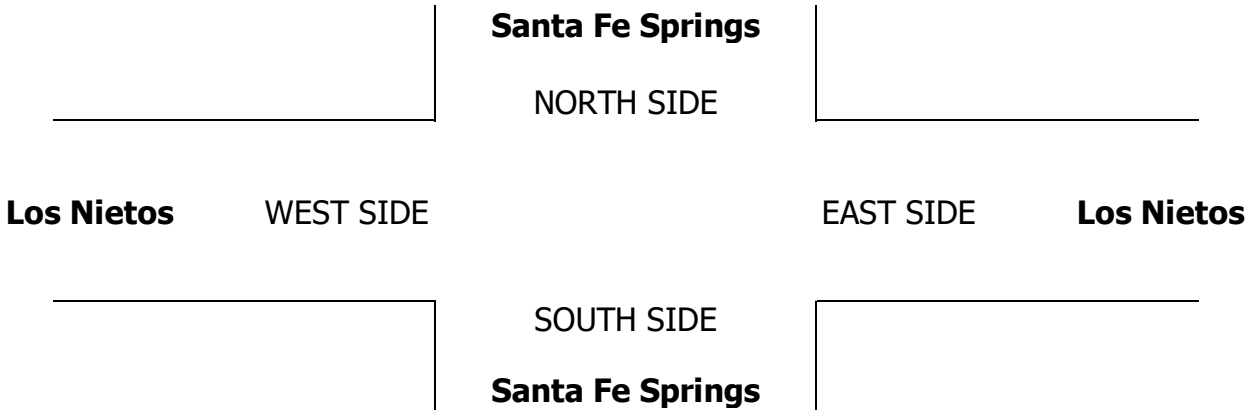
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Santa Fe Springs			Santa Fe Springs			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	12	82	6	12	115	6	1	32	11	14	51	24	366
	7:15 AM	13	78	12	21	113	8	1	38	18	19	42	20	383
	7:30 AM	16	89	1	17	125	5	5	39	18	20	44	22	401
	7:45 AM	21	111	10	37	143	6	6	72	15	22	54	33	530
	8:00 AM	13	117	10	18	102	7	8	40	11	23	72	32	453
	8:15 AM	10	96	12	25	63	2	5	37	15	34	48	27	374
	8:30 AM	11	95	6	19	85	7	4	31	4	11	42	25	340
	8:45 AM	12	100	10	27	27	2	4	35	8	21	37	31	314
	VOLUMES	108	768	67	176	773	43	34	324	100	164	390	214	3,161
	APPROACH %	11%	81%	7%	18%	78%	4%	7%	71%	22%	21%	51%	28%	
	APP/DEPART	943	/	1,016	992	/	1,037	458	/	567	768	/	541	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	60	413	33	97	433	20	24	188	59	99	218	114	1,758
	APPROACH %	12%	82%	7%	18%	79%	4%	9%	69%	22%	23%	51%	26%	
PM	PEAK HR FACTOR	0.891			0.739			0.728			0.848			0.829
	APP/DEPART	506	/	551	550	/	591	271	/	318	431	/	298	0
	04:00 PM	17	161	14	33	136	18	7	66	11	15	90	49	617
	4:15 PM	13	168	14	24	119	18	7	67	7	11	70	42	560
	4:30 PM	20	183	19	44	151	17	15	69	27	13	103	52	713
	4:45 PM	17	172	6	42	118	14	10	63	17	7	68	50	584
	5:00 PM	17	194	20	31	170	24	13	76	31	15	100	51	742
	5:15 PM	24	167	11	33	135	20	4	68	4	18	89	37	610
	5:30 PM	15	180	12	30	149	12	9	49	18	22	76	31	603
	5:45 PM	8	120	13	28	126	12	9	74	20	8	63	35	516
	VOLUMES	131	1,345	109	265	1,104	135	74	532	135	109	659	347	4,945
	APPROACH %	8%	85%	7%	18%	73%	9%	10%	72%	18%	10%	59%	31%	
	APP/DEPART	1,585	/	1,767	1,504	/	1,348	741	/	905	1,115	/	925	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	78	716	56	149	574	75	42	276	79	53	360	190	2,649
	APPROACH %	9%	84%	7%	19%	72%	9%	11%	70%	20%	9%	60%	32%	
	PEAK HR FACTOR	0.920			0.888			0.827			0.897			0.893
	APP/DEPART	850	/	949	799	/	706	397	/	481	603	/	513	0

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0	0	0	0	0
0	0	0	0	0
0	1	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 4 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

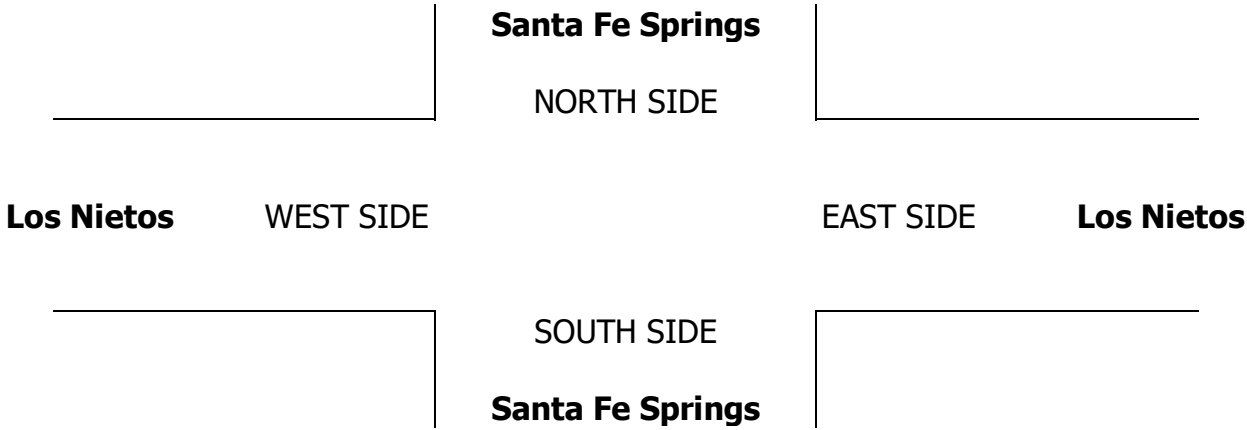
	NORTHBOUND Santa Fe Springs			SOUTHBOUND Santa Fe Springs			EASTBOUND Los Nietos			WESTBOUND Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	4	0	3	11	2	1	4	4	3	8	4	45
	7:15 AM	3	2	4	4	16	1	1	3	1	1	9	3	48
	7:30 AM	0	4	0	3	7	0	0	6	1	0	15	2	38
	7:45 AM	4	9	2	0	14	2	0	11	2	4	7	3	58
	8:00 AM	0	6	0	2	8	0	0	3	4	2	7	5	37
	8:15 AM	3	9	1	3	10	0	0	6	1	2	7	11	53
	8:30 AM	1	7	1	11	10	0	0	3	2	0	8	2	45
	8:45 AM	0	8	0	4	9	0	0	11	3	0	4	6	45
	VOLUMES	12	49	8	30	85	5	2	47	18	12	65	36	369
	APPROACH %	17%	71%	12%	25%	71%	4%	3%	70%	27%	11%	58%	32%	
	APP/DEPART	69	/	87	120	/	115	67	/	85	113	/	82	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	7	28	3	8	39	2	0	26	8	8	36	21	186
	APPROACH %	18%	74%	8%	16%	80%	4%	0%	76%	24%	12%	55%	32%	
	PEAK HR FACTOR	0.633			0.766			0.654			0.813			0.802
	APP/DEPART	38	/	49	49	/	55	34	/	37	65	/	45	0
PM	04:00 PM	2	12	0	3	12	2	0	5	0	1	3	4	44
	4:15 PM	1	10	3	4	7	0	1	4	3	2	11	3	49
	4:30 PM	3	19	1	1	9	0	1	8	1	1	4	4	52
	4:45 PM	0	19	2	2	8	0	1	4	0	2	5	4	47
	5:00 PM	2	14	0	2	11	1	1	8	0	1	5	5	50
	5:15 PM	1	14	0	2	9	2	0	3	0	0	6	6	43
	5:30 PM	0	8	2	1	3	0	0	3	0	0	3	2	22
	5:45 PM	2	2	0	2	3	2	1	4	0	0	4	0	20
	VOLUMES	11	98	8	17	62	7	5	39	4	7	41	28	327
	APPROACH %	9%	84%	7%	20%	72%	8%	10%	81%	8%	9%	54%	37%	
	APP/DEPART	117	/	131	86	/	73	48	/	64	76	/	59	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	6	66	3	7	37	3	3	23	1	4	20	19	192
	APPROACH %	8%	88%	4%	15%	79%	6%	11%	85%	4%	9%	47%	44%	
	PEAK HR FACTOR	0.815			0.839			0.675			0.896			0.923
	APP/DEPART	75	/	88	47	/	42	27	/	33	43	/	29	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 4 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

	NORTHBOUND <small>Santa Fe Springs</small>			SOUTHBOUND <small>Santa Fe Springs</small>			EASTBOUND <small>Los Nietos</small>			WESTBOUND <small>Los Nietos</small>			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL

AM	7:00 AM	0	0	0	0	0	0	1	1	1	0	0	3	
	7:15 AM	0	1	0	0	0	0	1	0	0	0	2	0	4
	7:30 AM	2	1	0	0	1	0	0	2	0	0	1	0	7
	7:45 AM	1	0	0	1	0	0	0	4	0	0	4	0	10
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	1	0	1	1	2	1	1	1	0	1	3	0	12
	8:30 AM	0	1	0	1	0	0	1	0	0	0	2	0	5
	8:45 AM	0	1	0	1	1	0	0	2	0	1	1	0	7
	VOLUMES	4	4	1	4	4	1	3	10	1	3	14	0	49
	APPROACH %	44%	44%	11%	44%	44%	11%	21%	71%	7%	18%	82%	0%	
	APP/DEPART	9	/	7	9	/	8	14	/	15	17	/	19	0
PM	BEGIN PEAK HR	7:30 AM												
	VOLUMES	4	1	1	2	3	1	1	7	0	1	9	0	30
	APPROACH %	67%	17%	17%	33%	50%	17%	13%	88%	0%	10%	90%	0%	
	PEAK HR FACTOR	0.500			0.375			0.500			0.625			0.625
	APP/DEPART	6	/	2	6	/	4	8	/	10	10	/	14	0
	04:00 PM	1	1	0	0	0	0	0	1	0	0	3	0	6
	4:15 PM	0	0	0	1	0	0	0	1	1	0	4	0	7
4:30 PM	0	0	0	1	1	1	0	2	0	0	3	1	9	
4:45 PM	0	1	0	0	0	1	0	1	0	0	1	0	4	
5:00 PM	0	0	0	0	0	0	0	4	0	0	0	0	4	
5:15 PM	0	0	0	1	2	0	1	0	0	0	0	0	4	
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	1	3	
5:45 PM	0	1	1	0	0	0	0	1	0	0	1	0	4	
VOLUMES	1	3	1	3	3	2	1	12	1	0	12	2	41	
APPROACH %	20%	60%	20%	38%	38%	25%	7%	86%	7%	0%	86%	14%		
APP/DEPART	5	/	6	8	/	4	14	/	16	14	/	15	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	0	1	0	2	3	2	1	7	0	0	4	1	21	
APPROACH %	0%	100%	0%	29%	43%	29%	13%	88%	0%	0%	80%	20%		
PEAK HR FACTOR	0.250			0.583			0.500			0.313			0.583	
APP/DEPART	1	/	3	7	/	3	8	/	9	5	/	6	0	

U-TURNS				
NB	SB	EB	WB	TTL

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Los Nietos	PROJECT #: LOCATION #: CONTROL:	SC2721 4 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

	NORTHBOUND Santa Fe Springs			SOUTHBOUND Santa Fe Springs			EASTBOUND Los Nietos			WESTBOUND Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	1	3	2	0	0	2	2	1	3	0	14
	7:15 AM	1	1	0	1	4	0	0	1	2	0	3	2	15
	7:30 AM	0	1	0	0	3	0	0	1	2	0	4	0	11
	7:45 AM	1	2	0	0	3	0	1	2	3	0	3	1	16
	8:00 AM	0	4	0	1	3	1	0	0	0	0	0	0	9
	8:15 AM	0	1	0	1	5	0	0	2	3	2	0	0	14
	8:30 AM	1	3	0	0	3	0	0	3	1	0	1	0	12
	8:45 AM	4	5	0	0	4	1	0	1	1	0	3	1	20
	VOLUMES	7	17	1	6	27	2	1	12	14	3	17	4	111
	APPROACH %	28%	68%	4%	17%	77%	6%	4%	44%	52%	13%	71%	17%	
	APP/DEPART	25	/	22	35	/	44	27	/	19	24	/	26	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	1	8	0	2	14	1	1	5	8	2	7	1	50
	APPROACH %	11%	89%	0%	12%	82%	6%	7%	36%	57%	20%	70%	10%	
	PEAK HR FACTOR	0.563			0.708			0.583			0.625			0.781
	APP/DEPART	9	/	10	17	/	24	14	/	7	10	/	9	0
	04:00 PM	0	5	1	0	0	1	2	3	0	0	6	2	20
	4:15 PM	1	3	0	1	6	1	0	3	1	0	2	0	18
	4:30 PM	0	2	0	0	1	0	0	1	0	0	6	1	11
	4:45 PM	0	2	0	1	3	0	0	2	0	0	2	0	10
	5:00 PM	0	1	0	0	3	0	1	1	0	0	1	0	7
	5:15 PM	1	1	0	1	0	0	0	4	0	1	0	0	8
	5:30 PM	1	3	0	0	1	0	0	2	0	1	0	2	10
	5:45 PM	0	1	0	0	5	0	0	1	1	1	4	2	15
	VOLUMES	3	18	1	3	19	2	3	17	2	3	21	7	99
	APPROACH %	14%	82%	5%	13%	79%	8%	14%	77%	9%	10%	68%	23%	
	APP/DEPART	22	/	28	24	/	24	22	/	21	31	/	26	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	6	0	2	7	0	1	8	0	1	9	1	36
	APPROACH %	14%	86%	0%	22%	78%	0%	11%	89%	0%	9%	82%	9%	
	PEAK HR FACTOR	0.875			0.563			0.563			0.393			0.818
	APP/DEPART	7	/	8	9	/	8	9	/	10	11	/	10	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Santa Fe Springs  
Los Nietos

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
4  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
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OTHER  
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Santa Fe Springs			Santa Fe Springs			Los Nietos			Los Nietos			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	0	0	0	0	0	0	0	0	1
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Santa Fe Springs  
Los Nietos

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
4  
SIGNAL

CLASS 6:

NOTES:

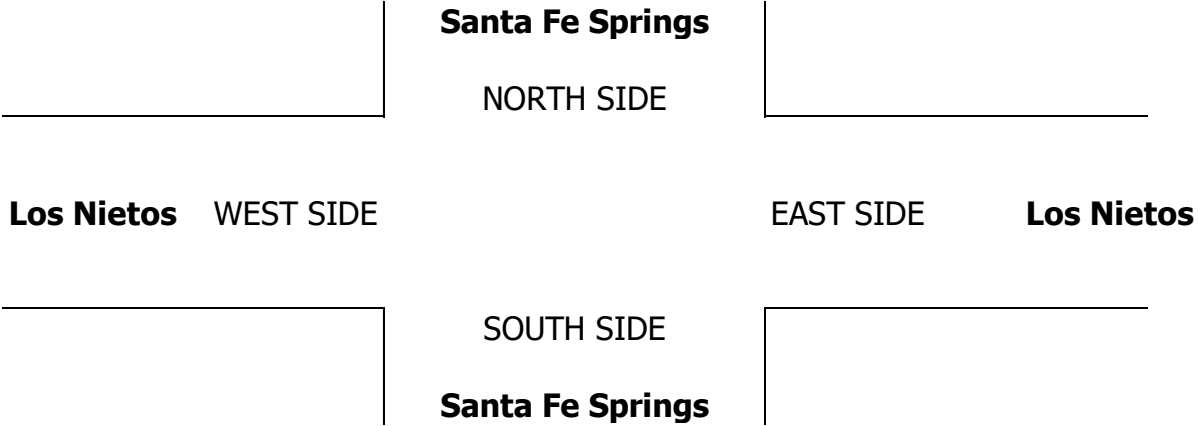
AM  
PM  
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OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Santa Fe Springs			Santa Fe Springs			Los Nietos			Los Nietos				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL					
AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	VOLUMES	0	3	1	0	2	0	0	0	0	0	0	6					
	APPROACH %	0%	75%	25%	0%	100%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	4	/	3	2	/	2	0	/	1	0	/	0					
	BEGIN PEAK HR	7:30 AM																
PM	VOLUMES	0	1	0	0	2	0	0	0	0	0	0	3					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR	0.250			0.250			0.000			0.000							
	APP/DEPART	1	/	1	2	/	2	0	/	0	0	/	0					
	04:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
	VOLUMES	0	4	0	0	2	0	0	0	0	0	0	6					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	4	/	4	2	/	2	0	/	0	0	/	0					
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	2	0	0	1	0	0	0	0	0	0	3					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR	0.500			0.250			0.000			0.000							
	APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0					





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
I-605 SB Ramps  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
5  
SIGNAL

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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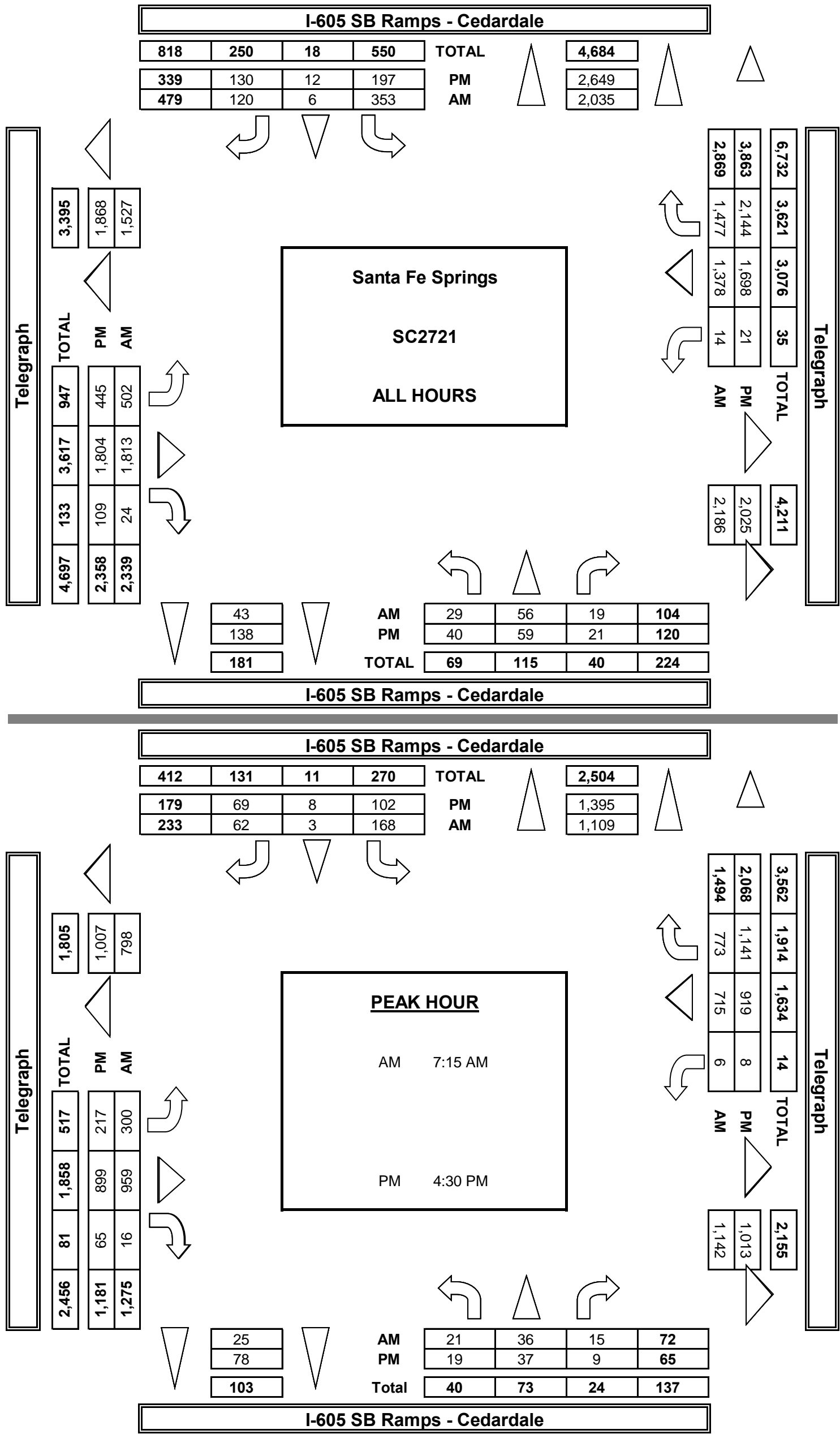
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		I-605 SB Ramps - Cedardale			I-605 SB Ramps - Cedardale			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	0	0	0	0	
AM	7:00 AM	3	6	0	51	2	13	46	216	1	2	141	200	681	0	0	0	1	1
	7:15 AM	3	12	4	46	0	14	96	256	3	3	132	191	760	0	0	0	0	0
	7:30 AM	7	9	4	37	1	13	75	248	1	1	223	219	838	0	0	0	0	0
	7:45 AM	4	11	3	35	0	16	78	251	4	1	172	179	754	0	0	0	0	0
	8:00 AM	7	4	4	50	2	19	51	204	8	1	188	184	722	0	0	0	0	0
	8:15 AM	2	3	1	42	0	14	51	234	1	0	208	188	744	0	0	0	0	0
	8:30 AM	1	8	2	44	1	13	65	220	3	2	157	143	659	0	0	0	0	0
	8:45 AM	2	3	1	48	0	18	40	184	3	4	157	173	633	0	0	0	0	0
	VOLUMES	29	56	19	353	6	120	502	1,813	24	14	1,378	1,477	5,791	0	0	0	1	1
	APPROACH %	28%	54%	18%	74%	1%	25%	21%	78%	1%	0%	48%	51%						
	APP/DEPART	104	/	2,035	479	/	43	2,339	/	2,186	2,869	/	1,527	0					
	BEGIN PEAK HR	7:15 AM																	
VOLUMES	21	36	15	168	3	62	300	959	16	6	715	773	3,074						
APPROACH %	29%	50%	21%	72%	1%	27%	24%	75%	1%	0%	48%	52%							
PEAK HR FACTOR	0.900			0.820			0.898			0.843			0.917						
APP/DEPART	72	/	1,109	233	/	25	1,275	/	1,142	1,494	/	798	0						
PM	04:00 PM	9	7	7	23	1	16	50	237	9	6	186	264	815	0	0	0	0	0
	4:15 PM	3	6	1	27	1	13	52	229	12	3	202	270	819	0	0	0	1	1
	4:30 PM	7	14	2	30	4	12	61	239	21	4	222	277	893	0	0	0	1	1
	4:45 PM	6	13	3	22	2	19	41	213	15	1	248	289	872	0	0	0	1	1
	5:00 PM	4	6	2	22	1	20	59	221	12	1	217	282	847	0	0	0	0	0
	5:15 PM	2	4	2	28	1	18	56	226	17	2	232	293	881	0	0	0	1	1
	5:30 PM	6	3	1	21	1	15	73	225	15	3	208	233	804	0	0	0	0	0
	5:45 PM	3	6	3	24	1	17	53	214	8	1	183	236	749	0	1	0	0	1
	VOLUMES	40	59	21	197	12	130	445	1,804	109	21	1,698	2,144	6,680	0	1	0	4	5
	APPROACH %	33%	49%	18%	58%	4%	38%	19%	77%	5%	1%	44%	56%						
	APP/DEPART	120	/	2,649	339	/	138	2,358	/	2,025	3,863	/	1,868	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	19	37	9	102	8	69	217	899	65	8	919	1,141	3,493					
	APPROACH %	29%	57%	14%	57%	4%	39%	18%	76%	6%	0%	44%	55%						
	PEAK HR FACTOR	0.707			0.952			0.920			0.961			0.978					
	APP/DEPART	65	/	1,395	179	/	78	1,181	/	1,013	2,068	/	1,007	0					



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	7:30 AM	4	0	0	0	4	1	0	0	0	1	3	0	0	0	3
	7:45 AM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	8:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	8:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:45 AM	1	1	0	0	2	0	1	0	0	1	1	0	0	0	1
	TOTAL	9	4	0	0	13	5	4	0	0	9	4	0	0	0	4
PM	4:00 PM	4	2	0	0	6	0	0	0	0	0	4	2	0	0	6
	4:15 PM	2	2	0	0	4	2	0	0	0	2	0	2	0	0	2
	4:30 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	1	2	0	0	3	0	0	0	0	0	1	2	0	0	3
	5:15 PM	3	3	0	0	6	0	0	0	0	0	3	3	0	0	6
	5:30 PM	0	4	0	0	4	0	1	0	0	1	0	3	0	0	3
	5:45 PM	2	2	0	0	4	1	2	0	0	3	1	0	0	0	1
	TOTAL	12	17	0	0	29	3	3	0	0	6	9	14	0	0	23

AimTD LLC  
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 SB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 5 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 0	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL					

AM	7:00 AM	3	7	0	58	2	17	47	224	1	3	150	220	729					0				
	7:15 AM	3	13	5	54	0	17	102	269	3	4	143	215	826					0				
	7:30 AM	7	10	4	41	1	14	78	264	1	1	239	258	916					0				
	7:45 AM	4	12	3	44	0	18	80	264	4	1	182	201	812					0				
	8:00 AM	8	4	5	58	2	22	52	210	8	2	204	210	783					0				
	8:15 AM	2	3	1	53	0	15	56	247	1	0	235	210	821					0				
	8:30 AM	1	9	3	52	3	14	69	236	3	3	186	162	739					0				
	8:45 AM	2	3	1	54	0	18	42	197	3	5	170	201	695					0				
	VOLUMES	30	59	21	413	8	134	523	1,910	24	17	1,507	1,675	6,318	0	0	0	0	0				
	APPROACH %	27%	54%	19%	74%	1%	24%	21%	78%	1%	1%	47%	52%										
APP/DEPART	109	/	2,256	555	/	49	2,457	/	2,344	3,199	/	1,670	0										
BEGIN PEAK HR	7:15 AM																						
VOLUMES	22	38	16	197	3	71	310	1,007	16	7	767	884	3,336										
APPROACH %	29%	50%	21%	73%	1%	26%	23%	76%	1%	0%	46%	53%											
PEAK HR FACTOR	0.915			0.828			0.892			0.833			0.910										
APP/DEPART	75	/	1,231	270	/	26	1,333	/	1,220	1,658	/	859	0										
04:00 PM	9	7	8	25	1	20	52	261	9	6	195	278	870										0
4:15 PM	3	6	2	33	1	18	56	254	13	3	212	290	889										0
4:30 PM	7	14	2	34	4	12	65	257	22	5	229	291	941										0
4:45 PM	7	14	3	25	2	19	44	224	16	1	262	310	925										0
5:00 PM	5	7	2	29	1	20	61	232	13	1	232	292	893					0					
5:15 PM	2	4	3	29	1	21	57	239	17	2	243	302	918					0					
5:30 PM	6	3	1	28	1	18	76	233	15	3	219	241	842					0					
5:45 PM	3	7	3	28	1	20	55	231	8	1	190	246	791					0					
VOLUMES	41	61	23	229	12	147	465	1,929	111	22	1,781	2,248	7,067	0	0	0	0	0					
APPROACH %	33%	49%	18%	59%	3%	38%	19%	77%	4%	1%	44%	55%											
APP/DEPART	125	/	2,774	388	/	145	2,505	/	2,180	4,050	/	1,969	0										
BEGIN PEAK HR	4:30 PM																						
VOLUMES	20	39	10	116	8	72	226	952	67	9	965	1,194	3,676										
APPROACH %	29%	57%	14%	59%	4%	37%	18%	76%	5%	0%	45%	55%											
PEAK HR FACTOR	0.723			0.970			0.907			0.947			0.977										
APP/DEPART	68	/	1,459	196	/	84	1,244	/	1,077	2,168	/	1,057	0										
																							0
																							0
																							0
																							0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

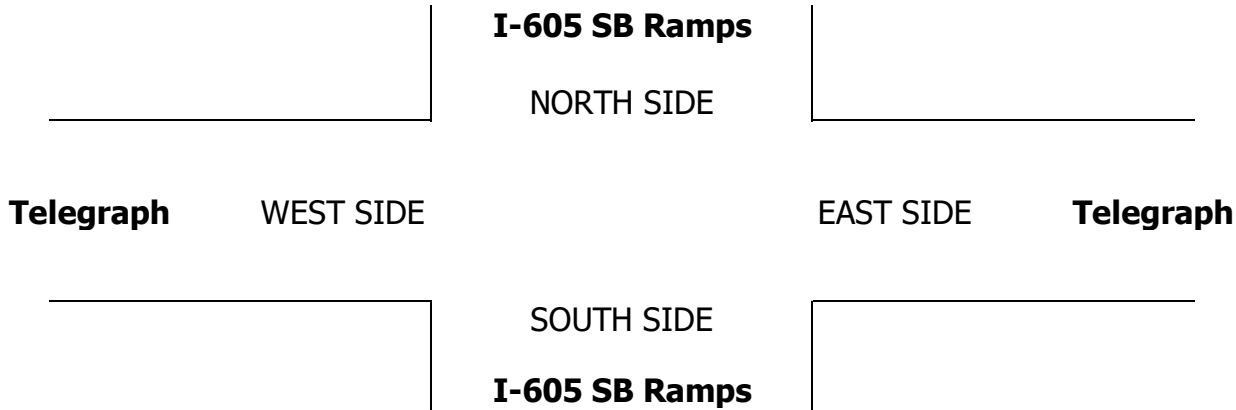
DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 SB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 5 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	1.5	0.5	1	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

AM	7:00 AM	3	5	0	43	2	9	45	204	1	1	131	173	617
	7:15 AM	3	11	3	39	0	11	89	234	3	2	116	163	674
	7:30 AM	7	8	4	32	1	12	73	227	1	1	195	174	735
	7:45 AM	4	10	3	29	0	15	75	233	4	1	157	157	688
	8:00 AM	6	4	3	44	2	16	50	193	8	0	168	155	649
	8:15 AM	2	3	1	30	0	13	45	218	1	0	171	159	643
	8:30 AM	1	7	1	37	0	11	58	202	3	0	133	123	576
	8:45 AM	2	3	1	40	0	18	38	164	3	3	137	134	543
	VOLUMES	28	51	16	294	5	105	473	1,675	24	8	1,208	1,238	5,125
	APPROACH %	29%	54%	17%	73%	1%	26%	22%	77%	1%	0%	49%	50%	
	APP/DEPART	95	/	1,762	404	/	36	2,172	/	1,986	2,454	/	1,341	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	20	33	13	144	3	54	287	887	16	4	636	649	2,746
	APPROACH %	30%	50%	20%	72%	1%	27%	24%	75%	1%	0%	49%	50%	
PM	PEAK HR FACTOR	0.868			0.810			0.913			0.871			0.934
	APP/DEPART	66	/	969	201	/	23	1,190	/	1,044	1,289	/	710	0
	04:00 PM	9	7	6	19	1	14	47	206	9	6	171	246	741
	4:15 PM	3	6	0	19	1	6	45	200	11	3	192	243	729
	4:30 PM	7	14	2	25	4	12	58	215	20	2	212	256	827
	4:45 PM	5	11	3	19	2	19	37	194	14	1	227	264	796
	5:00 PM	3	5	2	15	1	20	58	209	11	1	202	269	796
	5:15 PM	2	4	1	27	1	15	54	209	17	2	222	282	836
	5:30 PM	6	3	1	17	1	13	70	216	15	3	200	227	772
	5:45 PM	3	5	3	20	1	15	52	197	8	1	174	226	705
	VOLUMES	38	55	18	161	12	114	421	1,646	105	19	1,600	2,013	6,202
	APPROACH %	34%	50%	16%	56%	4%	40%	19%	76%	5%	1%	44%	55%	
	APP/DEPART	111	/	2,490	287	/	133	2,172	/	1,827	3,632	/	1,752	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	17	34	8	86	8	66	207	827	62	4	863	1,071	3,255
	APPROACH %	29%	58%	14%	54%	5%	41%	19%	75%	6%	0%	44%	55%	
	PEAK HR FACTOR	0.641			0.930			0.935			0.958			0.973
	APP/DEPART	59	/	1,312	160	/	74	1,096	/	923	1,940	/	946	0

0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	1	0	0	1
0	1	0	3	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 SB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 5 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div>▲ N ◀ W S ▼ E ▶</div>

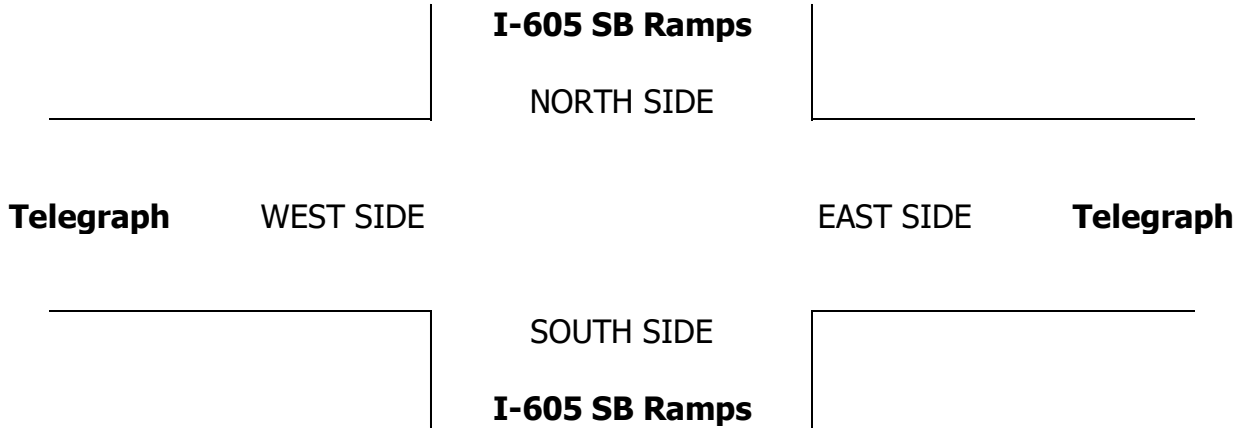
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph			
LANES:	NL 0	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	6	0	3	1	11	0	1	7	21	51
	7:15 AM	0	1	1	4	0	2	5	20	0	1	13	20	67
	7:30 AM	0	1	0	4	0	1	1	16	0	0	26	33	82
	7:45 AM	0	1	0	2	0	0	3	14	0	0	13	12	45
	8:00 AM	1	0	1	3	0	2	1	10	0	1	16	18	53
	8:15 AM	0	0	0	9	0	1	5	12	0	0	31	22	80
	8:30 AM	0	1	1	4	0	2	6	13	0	2	11	11	51
	8:45 AM	0	0	0	6	0	0	1	18	0	1	18	33	77
	VOLUMES	1	5	3	38	0	11	23	114	0	6	135	170	506
	APPROACH %	11%	56%	33%	78%	0%	22%	17%	83%	0%	2%	43%	55%	
	APP/DEPART	9	/	198	49	/	6	137	/	155	311	/	147	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	1	3	2	13	0	5	10	60	0	2	68	83	247
	APPROACH %	17%	50%	33%	72%	0%	28%	14%	86%	0%	1%	44%	54%	
	PEAK HR FACTOR	0.750			0.750			0.700			0.648			0.753
	APP/DEPART	6	/	96	18	/	2	70	/	75	153	/	74	0
	04:00 PM	0	0	1	4	0	0	2	23	0	0	14	15	59
	4:15 PM	0	0	1	7	0	6	6	21	1	0	5	22	69
	4:30 PM	0	0	0	4	0	0	1	20	1	2	9	18	55
	4:45 PM	1	2	0	2	0	0	3	18	1	0	17	18	62
	5:00 PM	1	1	0	5	0	0	0	8	1	0	8	11	35
	5:15 PM	0	0	1	1	0	2	2	13	0	0	6	9	34
	5:30 PM	0	0	0	1	0	1	2	7	0	0	2	3	16
	5:45 PM	0	1	0	3	0	1	0	11	0	0	6	7	29
	VOLUMES	2	4	3	27	0	10	16	121	4	2	67	103	359
	APPROACH %	22%	44%	33%	73%	0%	27%	11%	86%	3%	1%	39%	60%	
	APP/DEPART	9	/	123	37	/	5	141	/	152	172	/	79	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	2	3	1	12	0	2	6	59	3	1	40	56	186
	APPROACH %	33%	50%	17%	86%	0%	14%	9%	87%	4%	1%	41%	57%	
	PEAK HR FACTOR	0.500			0.700			0.773			0.700			0.750
	APP/DEPART	6	/	65	14	/	4	68	/	73	98	/	44	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 SB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 5 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N S ▼</div><div>◀ W E ▶</div></div>

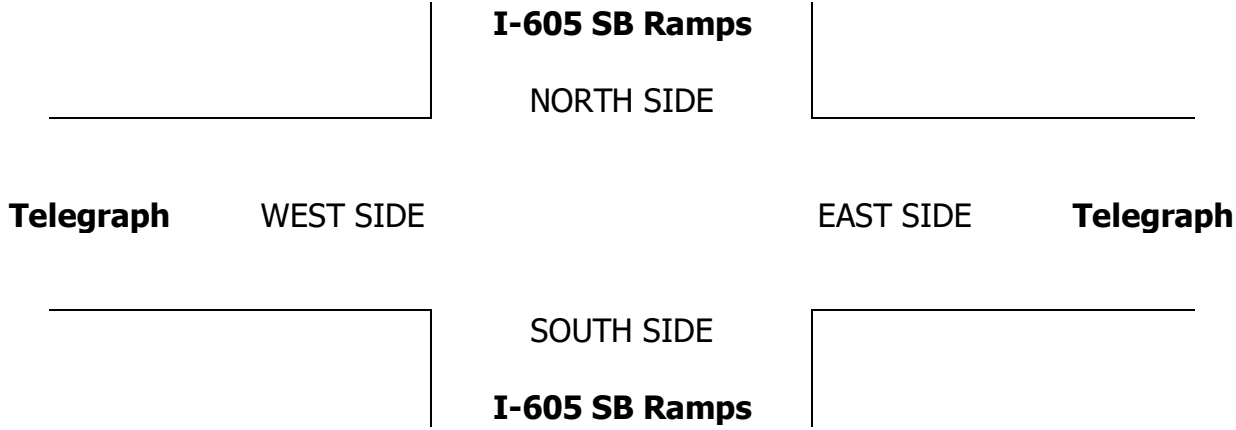
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph			
LANES:	NL 0	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	1	3	4
	7:15 AM	0	0	0	0	0	0	1	0	0	0	2	5
	7:30 AM	0	0	0	0	0	0	0	2	0	0	0	4
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	5
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	5
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	3
	8:30 AM	0	0	0	0	0	0	1	1	0	0	2	5
	8:45 AM	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	0	0	0	1	0	0	2	4	0	0	6	25
	APPROACH %	0%	0%	0%	100%	0%	0%	33%	67%	0%	0%	19%	81%
APP/DEPART	0	/	27	1	/	0	6	/	5	31	/	6	
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	0	0	0	0	0	1	3	0	0	2	13	
APPROACH %	0%	0%	0%	0%	0%	0%	25%	75%	0%	0%	13%	87%	
PEAK HR FACTOR	0.000			0.000			0.500			0.750			
APP/DEPART	0	/	14	0	/	0	4	/	3	15	/	2	
PM	04:00 PM	0	0	0	0	0	0	1	4	0	0	0	0
	4:15 PM	0	0	0	0	0	0	1	1	0	0	2	1
	4:30 PM	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	1	0	0	0	3	2
	5:00 PM	0	0	0	0	0	0	0	1	0	0	1	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0
	VOLUMES	0	0	0	0	0	0	4	8	0	0	8	4
	APPROACH %	0%	0%	0%	0%	0%	0%	33%	67%	0%	0%	67%	33%
	APP/DEPART	0	/	8	0	/	0	12	/	8	12	/	8
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	2	2	0	0	4	3
	APPROACH %	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%	57%	43%
PEAK HR FACTOR	0.000			0.000			1.000			0.350			
APP/DEPART	0	/	5	0	/	0	4	/	2	7	/	4	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 SB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 5 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

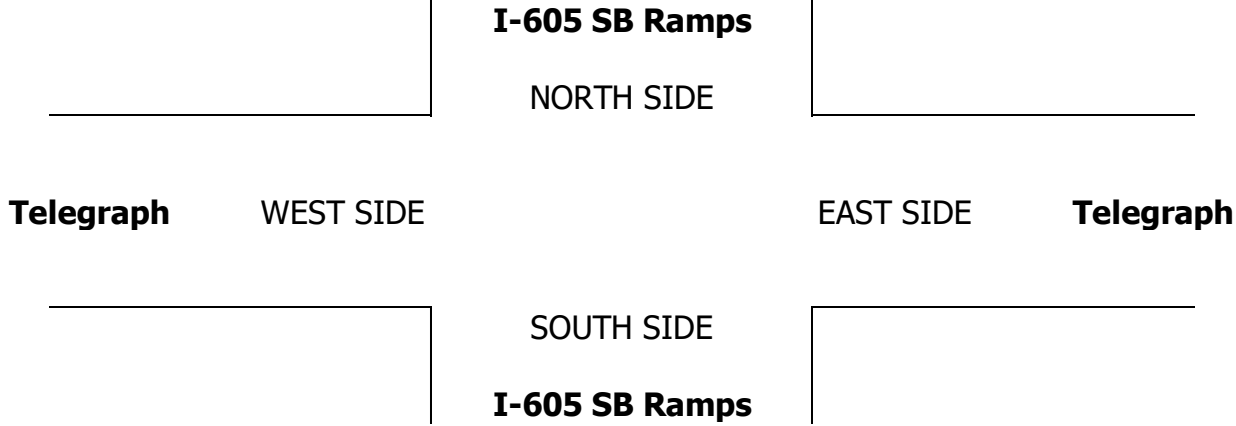
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph			
LANES:	NL 0	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	2	0	1	0	1	0	0	2	3	9
	7:15 AM	0	0	0	3	0	1	1	1	0	0	1	6	13
	7:30 AM	0	0	0	1	0	0	1	3	0	0	1	10	16
	7:45 AM	0	0	0	4	0	1	0	2	0	0	1	6	14
	8:00 AM	0	0	0	3	0	1	0	0	0	0	4	6	14
	8:15 AM	0	0	0	3	0	0	1	3	0	0	5	4	16
	8:30 AM	0	0	0	3	1	0	0	4	0	0	10	4	22
	8:45 AM	0	0	0	1	0	0	0	2	0	0	2	5	10
	VOLUMES	0	0	0	20	1	4	3	16	0	0	26	44	114
	APPROACH %	0%	0%	0%	80%	4%	16%	16%	84%	0%	0%	37%	63%	
	APP/DEPART	0	/	47	25	/	1	19	/	36	70	/	30	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	0	0	0	11	0	3	2	6	0	0	7	28	57
	APPROACH %	0%	0%	0%	79%	0%	21%	25%	75%	0%	0%	20%	80%	
	PEAK HR FACTOR	0.000			0.700			0.500			0.795			0.891
	APP/DEPART	0	/	30	14	/	0	8	/	17	35	/	10	0
	04:00 PM	0	0	0	0	0	2	0	4	0	0	1	3	10
	4:15 PM	0	0	0	1	0	1	0	6	0	0	2	4	14
	4:30 PM	0	0	0	1	0	0	1	4	0	0	1	2	9
	4:45 PM	0	0	0	1	0	0	0	1	0	0	1	5	8
	5:00 PM	0	0	0	2	0	0	1	3	0	0	4	2	12
	5:15 PM	0	0	0	0	0	1	0	2	0	0	4	2	9
	5:30 PM	0	0	0	3	0	1	1	2	0	0	4	3	14
	5:45 PM	0	0	0	1	0	1	1	5	0	0	1	3	12
	VOLUMES	0	0	0	9	0	6	4	27	0	0	18	24	88
	APPROACH %	0%	0%	0%	60%	0%	40%	13%	87%	0%	0%	43%	57%	
	APP/DEPART	0	/	28	15	/	0	31	/	36	42	/	24	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	4	0	1	2	10	0	0	10	11	38
	APPROACH %	0%	0%	0%	80%	0%	20%	17%	83%	0%	0%	48%	52%	
	PEAK HR FACTOR	0.000			0.625			0.600			0.875			0.792
	APP/DEPART	0	/	13	5	/	0	12	/	14	21	/	11	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
I-605 SB Ramps  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
5  
SIGNAL

CLASS 5:

RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
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S  
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E ▶

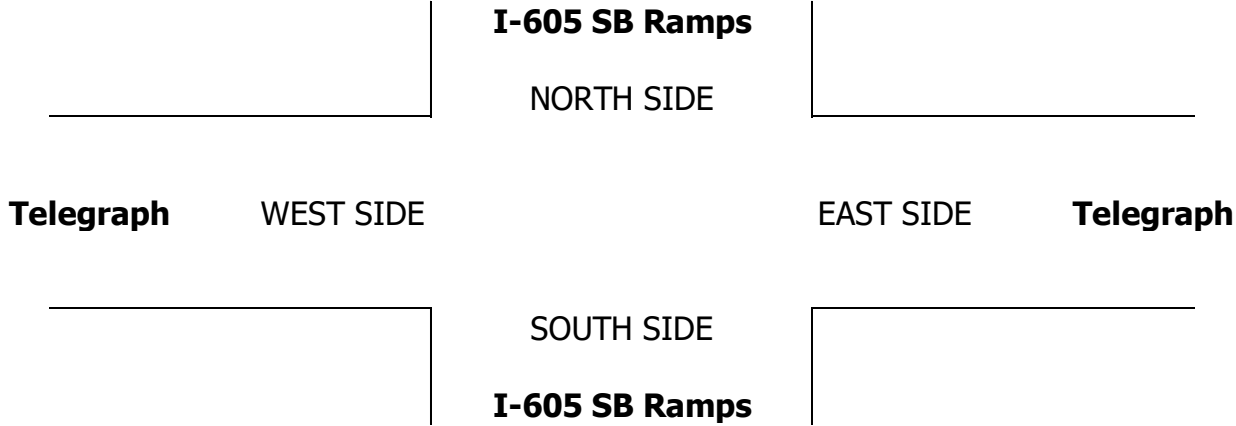
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	1.5	0.5	1	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<div>DATE: 4/20/21 TUESDAY</div>	<div>LOCATION: NORTH &amp; SOUTH: EAST &amp; WEST:</div>	<div>Santa Fe Springs I-605 SB Ramps Telegraph</div>	<div>PROJECT #: LOCATION #: CONTROL:</div>	<div>SC2721 5 SIGNAL</div>
<div>CLASS 6:</div>	<div>NOTES:</div>		<div>AM PM MD OTHER OTHER</div>	<div><div><div></div><div>◀ W</div><div></div></div><div><div>▲</div><div>N</div><div>S</div><div>▼</div></div><div><div></div><div>E ▶</div><div></div></div></div>
<div>BUSES</div>				

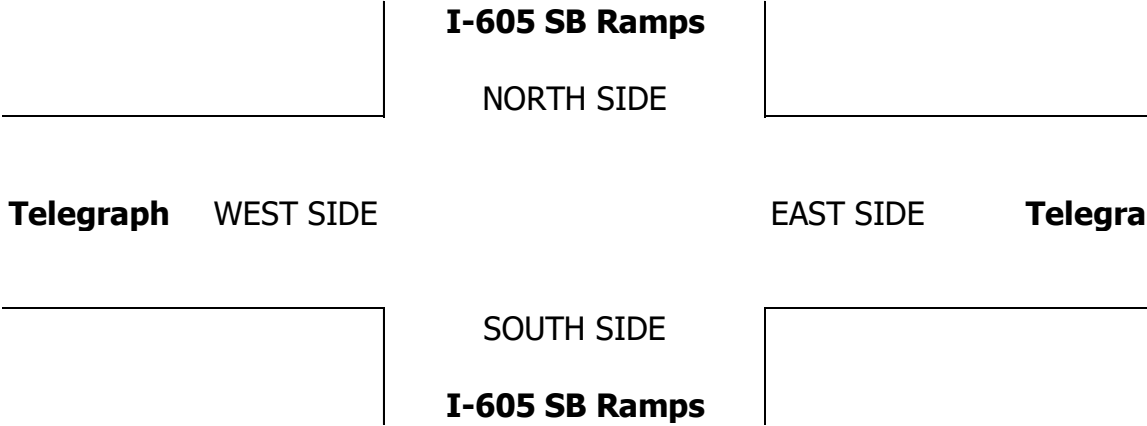
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 SB Ramps			I-605 SB Ramps			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	1.5	0.5	1	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	2
	8:00 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	1	0	0	0	0	0	1
	VOLUMES	0	0	0	0	0	1	4	0	0	3	0	8
	APPROACH %	0%	0%	0%	0%	0%	20%	80%	0%	0%	100%	0%	
	APP/DEPART	0	/	1	0	/	0	/	4	3	/	3	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	3	0	0	2	0	5
PM	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.750			0.500		
	APP/DEPART	0	/	0	0	/	0	/	3	2	/	2	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2
	5:15 PM	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	0	0	0	0	0	0	2	0	0	5	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	/	2	5	/	5	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	1	0	0	2	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.250			0.250		
	APP/DEPART	0	/	0	0	/	0	/	1	2	/	2	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
I-605 NB Ramps  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
6  
SIGNAL

NOTES:  
  
Queue EB/WB AM/PM

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
▼

E ▶

☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		I-605 NB Ramps			I-605 NB Ramps			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:		NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	0	0	0	0	
AM	7:00 AM	2	10	2	0	0	0	26	369	4	1	304	60	778	0	0	0	0	0
	7:15 AM	9	22	1	0	0	0	24	381	6	0	294	80	817	0	0	0	0	0
	7:30 AM	15	8	1	0	0	0	31	367	15	1	311	80	829	0	0	0	1	1
	7:45 AM	13	11	2	0	0	0	31	405	12	1	316	60	851	0	0	0	0	0
	8:00 AM	9	8	0	0	0	0	16	377	7	0	362	56	835	0	0	0	0	0
	8:15 AM	16	1	2	0	0	0	30	370	7	2	283	60	771	0	0	0	1	1
	8:30 AM	7	6	1	0	0	0	29	317	8	1	280	72	721	0	0	1	1	2
	8:45 AM	5	2	2	0	0	0	21	332	7	1	271	60	701	0	0	0	0	0
	VOLUMES	76	68	11	0	0	0	208	2,918	66	7	2,421	528	6,303	0	0	1	3	4
	APPROACH %	49%	44%	7%	0%	0%	0%	7%	91%	2%	0%	82%	18%						
APP/DEPART	155	/	803	0	/	70	3,192	/	2,932	2,956	/	2,498	0						
BEGIN PEAK HR	7:15 AM												3,332						
VOLUMES	46	49	4	0	0	0	102	1,530	40	2	1,283	276							
APPROACH %	46%	49%	4%	0%	0%	0%	6%	92%	2%	0%	82%	18%							
PEAK HR FACTOR	0.773			0.000			0.933			0.934			0.979						
APP/DEPART	99	/	427	0	/	41	1,672	/	1,535	1,561	/	1,329	0						
PM	04:00 PM	7	6	4	0	0	0	29	320	13	3	387	52	821	0	0	1	0	1
	4:15 PM	8	8	4	0	0	0	31	358	9	0	406	56	880	0	0	0	0	0
	4:30 PM	13	4	5	0	0	0	24	345	11	2	440	48	892	0	0	1	0	1
	4:45 PM	6	6	5	0	0	0	16	341	10	2	471	66	923	0	0	1	0	1
	5:00 PM	15	7	7	0	0	0	26	314	14	2	403	47	835	0	0	0	0	0
	5:15 PM	9	6	3	0	0	0	24	319	13	2	458	62	896	0	0	3	0	3
	5:30 PM	14	4	1	0	0	0	28	321	19	1	359	62	809	0	0	0	0	0
	5:45 PM	5	5	7	0	0	0	31	307	15	0	354	59	783	0	0	2	0	2
	VOLUMES	77	46	36	0	0	0	209	2,625	104	12	3,278	452	6,839	0	0	8	0	8
	APPROACH %	48%	29%	23%	0%	0%	0%	7%	89%	4%	0%	88%	12%						
	APP/DEPART	159	/	699	0	/	116	2,938	/	2,661	3,742	/	3,363	0					
	BEGIN PEAK HR	4:30 PM												3,546					
	VOLUMES	43	23	20	0	0	0	90	1,319	48	8	1,772	223						
APPROACH %	50%	27%	23%	0%	0%	0%	6%	91%	3%	0%	88%	11%							
PEAK HR FACTOR	0.741			0.000			0.959			0.929			0.960						
APP/DEPART	86	/	331	0	/	56	1,457	/	1,339	2,003	/	1,820	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:30 AM	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
	7:45 AM	2	1	0	0	3	2	0	0	0	2	0	1	0	0	1
	8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	TOTAL	4	8	0	0	12	3	4	0	0	7	1	4	0	0	5
PM	4:00 PM	2	2	0	0	4	0	0	0	0	0	2	2	0	0	4
	4:15 PM	3	2	0	0	5	2	0	0	0	2	1	2	0	0	3
	4:30 PM	0	2	1	0	3	0	0	0	0	0	0	2	1	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	1	2	0	0	3	1	0	0	0	1	0	2	0	0	2
	5:15 PM	3	3	0	0	6	0	0	0	0	0	3	3	0	0	6
	5:30 PM	0	3	1	0	4	0	1	0	0	1	0	2	1	0	3
	5:45 PM	0	5	1	0	6	0	3	1	0	4	0	2	0	0	2
	TOTAL	9	19	3	0	31	3	4	1	0	8	6	15	2	0	23



The diagram illustrates the traffic flow and volume data for the Santa Fe Springs SC2721 interchange. The central area is labeled "Santa Fe Springs SC2721 ALL HOURS".

**I-605 NB Ramps (Top):**

I-605 NB Ramps			
0	0	0	0
0	0	0	0
0	0	0	0
TOTAL			
1,502			
PM			
699			
AM			
803			

**I-605 NB Ramps (Bottom):**

I-605 NB Ramps			
0	0	0	0
0	0	0	0
0	0	0	0
TOTAL			
758			
PM			
331			
AM			
427			

**Telegraph (Left):**

Telegraph			
6,130	170	5,543	417
TOTAL			
5,861			
PM			
3,363			
AM			
2,498			

**Telegraph (Right):**

Telegraph			
2,932	2,661	5,593	19
TOTAL			
5,593			
PM			
2,932			
AM			
2,661			

**Peak Hour Data (Bottom):**

PEAK HOUR			
AM 7:15 AM			
PM 4:30 PM			

**Peak Hour Volume Data (Bottom):**

PEAK HOUR			
41	56	97	46
43	23	89	49
20	185	72	4
Total			
185			

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 NB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 6 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	I-605 NB Ramps			I-605 NB Ramps			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	2	11	2	0	0	0	27	410	5	1	341	76	874					0
	7:15 AM	10	23	3	0	0	0	31	411	7	0	325	102	911					0
	7:30 AM	17	8	1	0	0	0	36	396	16	1	346	96	915					0
	7:45 AM	13	12	2	0	0	0	33	428	12	1	358	80	937					0
	8:00 AM	10	8	0	0	0	0	17	411	7	0	406	73	931					0
	8:15 AM	18	1	2	0	0	0	32	408	7	2	320	72	861					0
	8:30 AM	7	8	1	0	0	0	32	355	9	1	318	94	823					0
	8:45 AM	5	2	3	0	0	0	22	366	10	1	302	77	786					0
	VOLUMES	81	73	14	0	0	0	228	3,183	71	7	2,714	668	7,036	0	0	0	0	0
	APPROACH %	48%	44%	8%	0%	0%	0%	7%	91%	2%	0%	80%	20%						
APP/DEPART	167	/	968	0	/	78	3,482	/	3,197	3,388	/	2,794	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	49	51	6	0	0	0	116	1,646	42	2	1,434	350	3,693						
APPROACH %	46%	48%	6%	0%	0%	0%	6%	91%	2%	0%	80%	20%							
PEAK HR FACTOR	0.739			0.000			0.955			0.933			0.985						
APP/DEPART	105	/	516	0	/	44	1,803	/	1,652	1,786	/	1,482	0						
04:00 PM	8	7	4	0	0	0	34	358	14	3	403	53	881						
4:15 PM	9	9	4	0	0	0	35	400	9	0	429	61	955						
4:30 PM	13	4	5	0	0	0	27	369	11	3	459	52	941						
4:45 PM	7	6	6	0	0	0	18	365	10	2	496	74	982						
5:00 PM	15	7	7	0	0	0	27	334	15	2	419	50	875					0	
5:15 PM	9	6	3	0	0	0	27	335	14	2	473	67	934					0	
5:30 PM	15	5	1	0	0	0	29	347	19	1	373	68	856					0	
5:45 PM	5	5	7	0	0	0	32	333	16	0	366	65	827					0	
VOLUMES	79	48	37	0	0	0	226	2,839	107	13	3,415	488	7,250	0	0	0	0	0	
APPROACH %	48%	29%	22%	0%	0%	0%	7%	90%	3%	0%	87%	12%							
APP/DEPART	163	/	762	0	/	119	3,172	/	2,876	3,916	/	3,494	0						
BEGIN PEAK HR	4:30 PM																		
VOLUMES	44	23	21	0	0	0	98	1,402	50	9	1,846	243	3,732						
APPROACH %	50%	26%	24%	0%	0%	0%	6%	91%	3%	0%	88%	12%							
PEAK HR FACTOR	0.750			0.000			0.954			0.917			0.950						
APP/DEPART	87	/	363	0	/	58	1,549	/	1,422	2,097	/	1,889	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
I-605 NB Ramps  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
6  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W

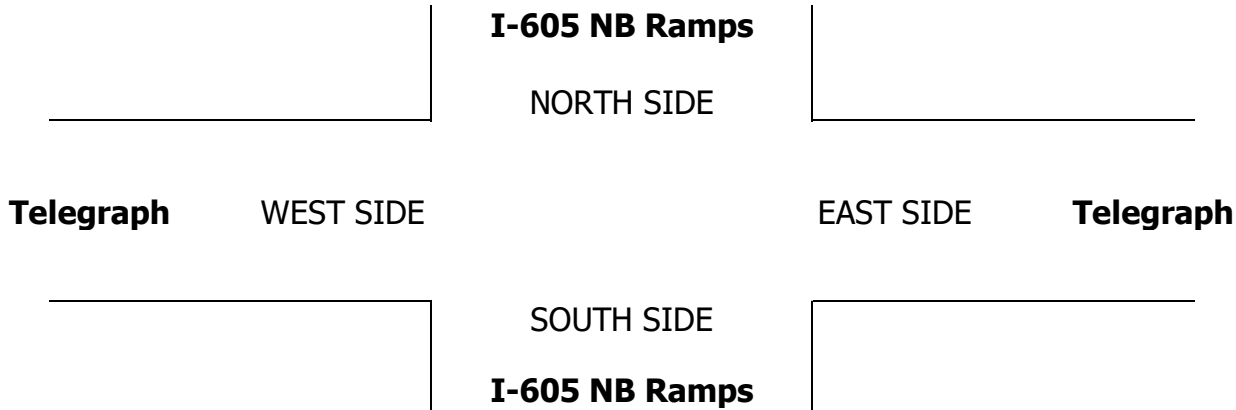
S  
▼  
E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	I-605 NB Ramps			I-605 NB Ramps			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	2	8	2	0	0	0	24	328	3	1	259	44	671
	7:15 AM	8	20	0	0	0	0	16	348	4	0	253	50	699
	7:30 AM	12	8	1	0	0	0	28	332	14	1	273	65	734
	7:45 AM	13	10	2	0	0	0	28	377	12	1	268	44	755
	8:00 AM	8	8	0	0	0	0	15	337	7	0	308	39	722
	8:15 AM	15	1	2	0	0	0	27	331	7	2	235	47	667
	8:30 AM	7	3	1	0	0	0	27	277	7	1	229	45	597
	8:45 AM	5	2	1	0	0	0	19	293	5	1	231	39	596
	VOLUMES	70	60	9	0	0	0	184	2,623	59	7	2,056	373	5,441
	APPROACH %	50%	43%	6%	0%	0%	0%	6%	92%	2%	0%	84%	15%	
	APP/DEPART	139	/	617	0	/	63	2,866	/	2,635	2,436	/	2,126	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	41	46	3	0	0	0	87	1,394	37	1	1,102	198	2,910
	APPROACH %	46%	51%	3%	0%	0%	0%	6%	92%	2%	0%	85%	15%	
	PEAK HR FACTOR	0.804			0.000			0.910			0.938			0.964
	APP/DEPART	90	/	331	0	/	38	1,518	/	1,398	1,302	/	1,143	0
PM	04:00 PM	6	5	4	0	0	0	25	275	12	3	365	51	746
	4:15 PM	7	7	4	0	0	0	27	309	9	0	378	49	790
	4:30 PM	13	4	5	0	0	0	22	311	11	1	413	43	823
	4:45 PM	5	6	4	0	0	0	15	307	10	2	442	59	850
	5:00 PM	15	7	7	0	0	0	25	291	13	2	388	44	792
	5:15 PM	9	6	3	0	0	0	22	300	11	2	444	56	853
	5:30 PM	13	3	1	0	0	0	27	299	19	1	348	55	766
	5:45 PM	5	5	7	0	0	0	30	286	14	0	344	51	742
	VOLUMES	73	43	35	0	0	0	193	2,378	99	11	3,122	408	6,362
	APPROACH %	48%	28%	23%	0%	0%	0%	7%	89%	4%	0%	88%	12%	
	APP/DEPART	151	/	636	0	/	110	2,670	/	2,413	3,541	/	3,203	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	42	23	19	0	0	0	79	1,209	45	7	1,687	202	3,318
	APPROACH %	50%	27%	23%	0%	0%	0%	6%	90%	3%	0%	89%	11%	
	PEAK HR FACTOR	0.724			0.000			0.972			0.942			0.972
	APP/DEPART	84	/	304	0	/	52	1,338	/	1,228	1,896	/	1,734	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	3	3

0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	2	0	2
0	0	8	0	8



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 NB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 6 SIGNAL
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CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	<div>▲ N ◀ W S ▼</div>	E ▶
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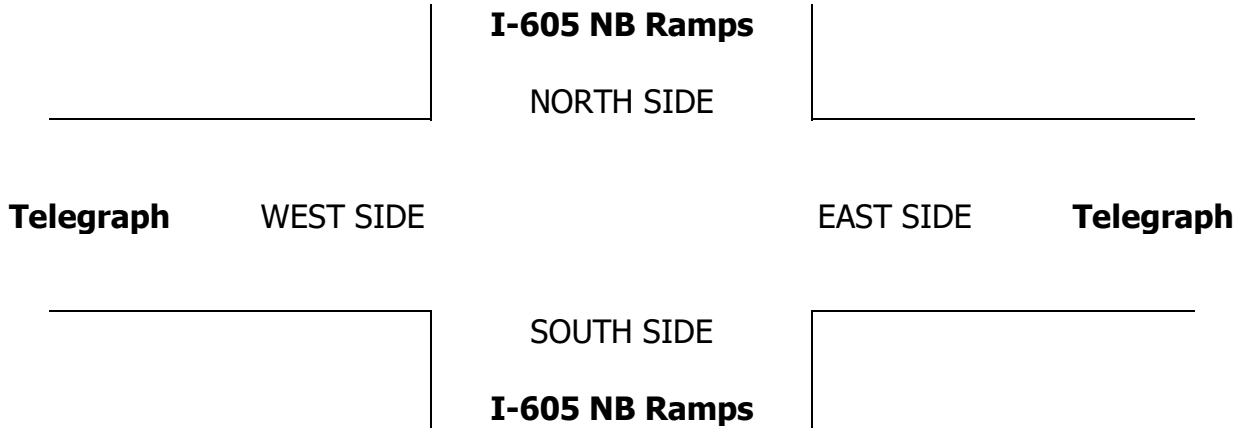
	NORTHBOUND I-605 NB Ramps			SOUTHBOUND I-605 NB Ramps			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	2	0	0	0	0	2	25	1	0	32	11	73
	7:15 AM	1	2	0	0	0	0	6	22	2	0	32	25	90
	7:30 AM	3	0	0	0	0	0	1	26	1	0	27	9	67
	7:45 AM	0	1	0	0	0	0	3	21	0	0	33	8	66
	8:00 AM	1	0	0	0	0	0	1	28	0	0	39	10	79
	8:15 AM	0	0	0	0	0	0	3	23	0	0	36	9	71
	8:30 AM	0	2	0	0	0	0	1	28	1	0	41	21	94
	8:45 AM	0	0	1	0	0	0	2	29	1	0	31	16	80
	VOLUMES	5	7	1	0	0	0	19	202	6	0	271	109	620
	APPROACH %	38%	54%	8%	0%	0%	0%	8%	89%	3%	0%	71%	29%	
	APP/DEPART	13	/	135	0	/	6	227	/	203	380	/	276	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	5	3	0	0	0	0	11	97	3	0	131	52	302
PM	APPROACH %	63%	38%	0%	0%	0%	0%	10%	87%	3%	0%	72%	28%	
	PEAK HR FACTOR	0.667			0.000			0.925			0.803			0.839
	APP/DEPART	8	/	66	0	/	3	111	/	97	183	/	136	0
	04:00 PM	1	1	0	0	0	0	1	32	1	0	19	1	56
	4:15 PM	1	1	0	0	0	0	2	37	0	0	20	6	67
	4:30 PM	0	0	0	0	0	0	1	29	0	1	23	4	58
	4:45 PM	1	0	1	0	0	0	0	29	0	0	21	4	56
	5:00 PM	0	0	0	0	0	0	1	16	1	0	8	2	28
	5:15 PM	0	0	0	0	0	0	1	13	2	0	9	5	30
	5:30 PM	1	1	0	0	0	0	1	12	0	0	5	5	25
	5:45 PM	0	0	0	0	0	0	1	10	1	0	5	7	24
	VOLUMES	4	3	1	0	0	0	8	178	5	1	110	34	344
	APPROACH %	50%	38%	13%	0%	0%	0%	4%	93%	3%	1%	76%	23%	
	APP/DEPART	8	/	45	0	/	6	191	/	179	145	/	114	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	0	1	0	0	0	3	87	3	1	61	15	172
	APPROACH %	50%	0%	50%	0%	0%	0%	3%	94%	3%	1%	79%	19%	
	PEAK HR FACTOR	0.250			0.000			0.775			0.688			0.741
	APP/DEPART	2	/	18	0	/	4	93	/	88	77	/	62	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 NB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 6 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

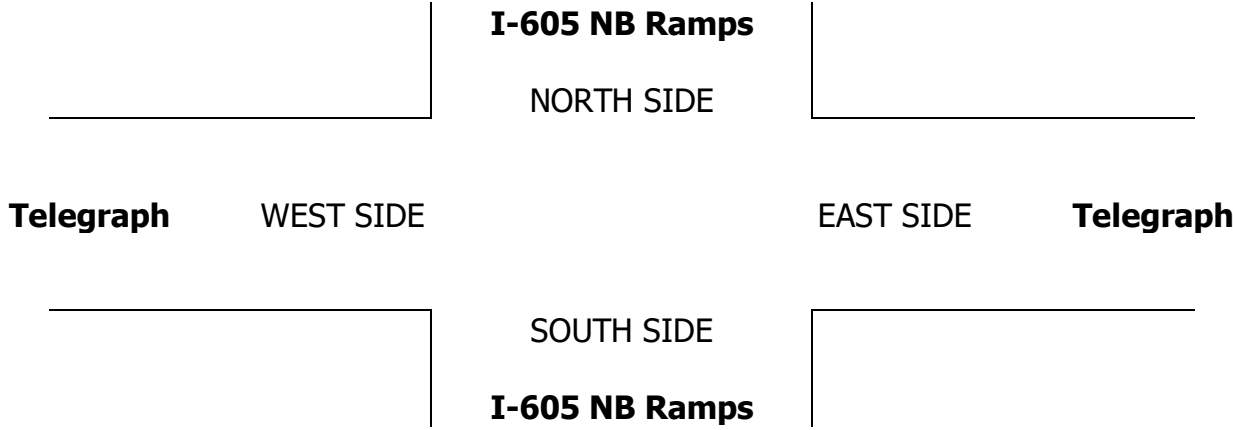
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 NB Ramps			I-605 NB Ramps			Telegraph			Telegraph			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	4	0	0	5	0	9
	7:15 AM	0	0	0	0	0	0	2	0	0	3	1	6
	7:30 AM	0	0	0	0	0	0	2	0	0	0	1	3
	7:45 AM	0	0	0	0	0	0	1	0	0	4	0	5
	8:00 AM	0	0	0	0	0	0	3	0	0	6	2	11
	8:15 AM	0	0	0	0	0	0	5	0	0	5	1	11
	8:30 AM	0	1	0	0	0	0	0	0	0	2	1	4
	8:45 AM	0	0	0	0	0	0	1	0	0	3	1	5
	VOLUMES	0	1	0	0	0	0	18	0	0	28	7	54
	APPROACH %	0%	100%	0%	0%	0%	0%	100%	0%	0%	80%	20%	
	APP/DEPART	1	/	8	0	/	0	18	/	18	35	/	28
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	0	0	0	0	0	8	0	0	13	4	25
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	76%	24%	
	PEAK HR FACTOR	0.000			0.000			0.667			0.531		
	APP/DEPART	0	/	4	0	/	0	8	/	8	17	/	13
	04:00 PM	0	0	0	0	0	0	2	4	0	0	0	6
	4:15 PM	0	0	0	0	0	0	1	0	0	2	0	3
	4:30 PM	0	0	0	0	0	0	0	1	0	1	0	2
	4:45 PM	0	0	0	0	0	0	0	1	0	0	2	3
	5:00 PM	0	0	0	0	0	0	0	2	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1
	VOLUMES	0	0	0	0	0	0	3	11	0	0	5	1
	APPROACH %	0%	0%	0%	0%	0%	0%	21%	79%	0%	0%	83%	17%
	APP/DEPART	0	/	4	0	/	0	14	/	11	6	/	5
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	6	0	0	3	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%
	PEAK HR FACTOR	0.000			0.000			0.750			0.375		
	APP/DEPART	0	/	0	0	/	0	6	/	6	3	/	3

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 NB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 6 SIGNAL
CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

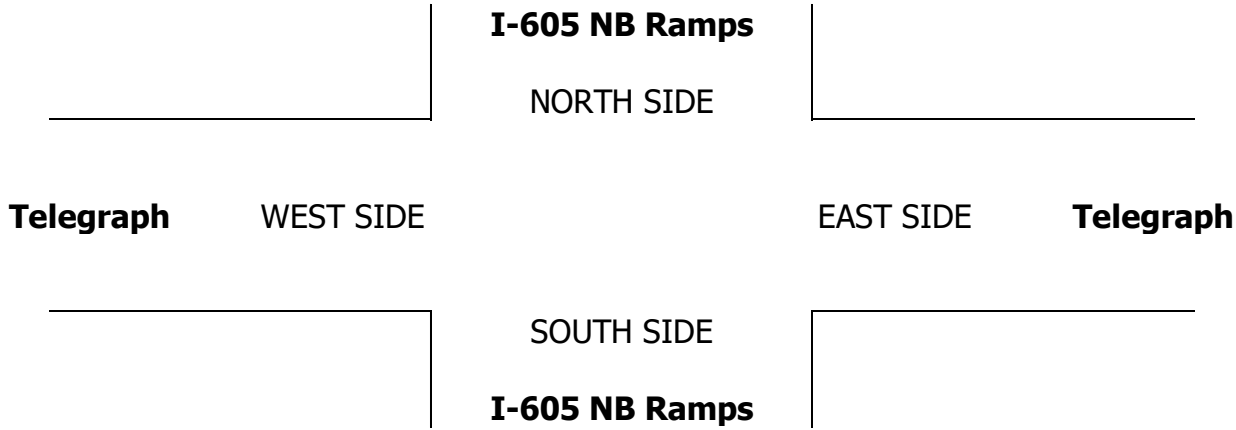
	NORTHBOUND I-605 NB Ramps			SOUTHBOUND I-605 NB Ramps			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	12	0	0	8	5	25	
	7:15 AM	0	0	1	0	0	0	2	8	0	6	4	21	
	7:30 AM	0	0	0	0	0	0	2	7	0	10	5	24	
	7:45 AM	0	0	0	0	0	0	0	5	0	10	8	23	
	8:00 AM	0	0	0	0	0	0	0	8	0	9	5	22	
	8:15 AM	1	0	0	0	0	0	0	10	0	7	3	21	
	8:30 AM	0	0	0	0	0	0	1	12	0	7	5	25	
	8:45 AM	0	0	0	0	0	0	0	9	1	6	4	20	
	VOLUMES	1	0	1	0	0	0	5	71	1	0	63	39	181
	APPROACH %	50%	0%	50%	0%	0%	0%	6%	92%	1%	0%	62%	38%	
APP/DEPART	2	/	43	0	/	1	77	/	72	102	/	65	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	0	1	0	0	0	4	28	0	0	35	22	90	
APPROACH %	0%	0%	100%	0%	0%	0%	13%	88%	0%	0%	61%	39%		
PEAK HR FACTOR	0.250			0.000			0.800			0.792			0.938	
APP/DEPART	1	/	26	0	/	0	32	/	29	57	/	35	0	
PM	4:00 PM	0	0	0	0	0	0	1	9	0	0	3	0	13
	4:15 PM	0	0	0	0	0	0	1	11	0	0	5	1	18
	4:30 PM	0	0	0	0	0	0	1	4	0	0	3	1	9
	4:45 PM	0	0	0	0	0	0	1	4	0	0	6	3	14
	5:00 PM	0	0	0	0	0	0	0	5	0	0	5	1	11
	5:15 PM	0	0	0	0	0	0	1	3	0	0	5	1	10
	5:30 PM	0	0	0	0	0	0	0	10	0	0	5	1	16
	5:45 PM	0	0	0	0	0	0	0	10	0	0	4	1	15
	VOLUMES	0	0	0	0	0	0	5	56	0	0	36	9	106
	APPROACH %	0%	0%	0%	0%	0%	0%	8%	92%	0%	0%	80%	20%	
	APP/DEPART	0	/	14	0	/	0	61	/	56	45	/	36	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	0	0	0	3	16	0	0	19	6	44
	APPROACH %	0%	0%	0%	0%	0%	0%	16%	84%	0%	0%	76%	24%	
PEAK HR FACTOR	0.000			0.000			0.950			0.694			0.786	
APP/DEPART	0	/	9	0	/	0	19	/	16	25	/	19	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
I-605 NB Ramps  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
6  
SIGNAL

CLASS 5:

RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
▼

E ▶

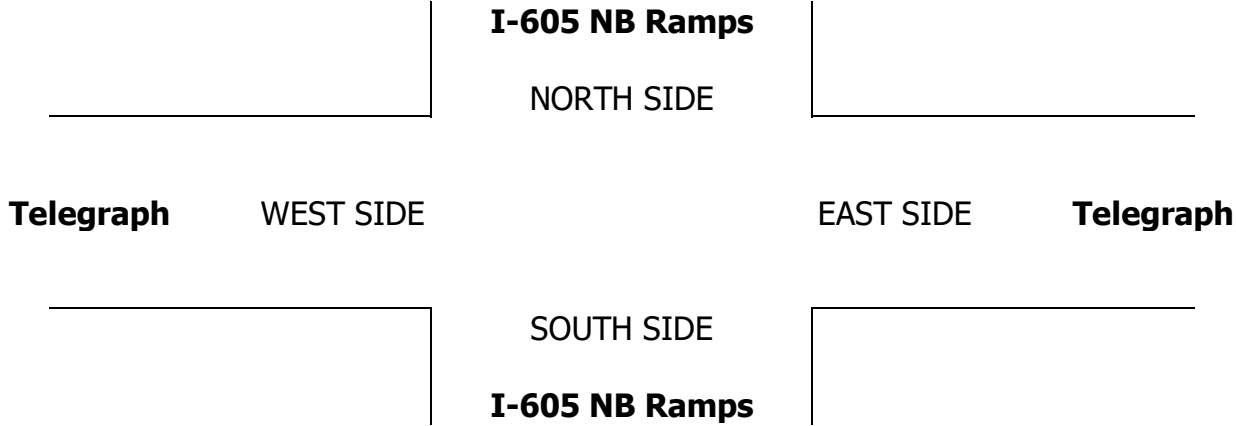
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 NB Ramps			I-605 NB Ramps			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs I-605 NB Ramps Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 6 SIGNAL
CLASS 6:	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶
BUSES				

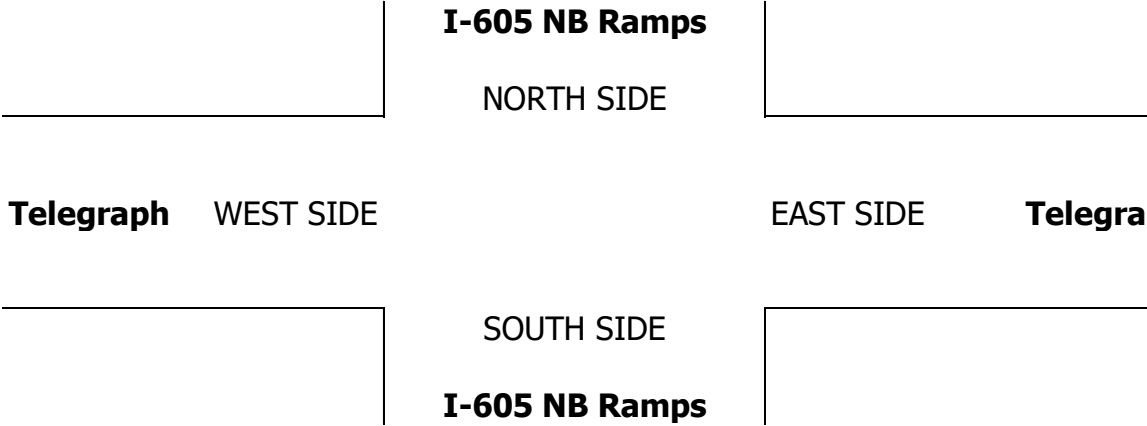
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	I-605 NB Ramps			I-605 NB Ramps			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0.5	0.5	1	X	X	X	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	2
	8:00 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	4	0	0	3	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	3	/	3
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	0	0	0	0	0	3	0	0	2	0	5
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.750			0.500		
	APP/DEPART	0	/	0	0	/	0	3	/	3	2	/	2
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2
	5:15 PM	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	0	0	0	0	0	0	2	0	0	5	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	2	/	2	5	/	5
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	1	0	0	2	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.250			0.250		
	APP/DEPART	0	/	0	0	/	0	1	/	1	2	/	2

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

NOTES:  
  
Queue WB AM/PM

AM  
PM  
MD  
OTHER  
OTHER

◀ W  
E ▶

▲ N  
▼ S

☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS						
		Orr and Day			Orr and Day			Telegraph			Telegraph					NB	SB	EB	WB	TTL	
LANES:		NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL		0	0	0	0		
AM	7:00 AM	45	14	7	4	27	75	21	281	11	10	239	1	735		0	0	0	0	0	
	7:15 AM	53	21	16	9	36	82	24	345	20	10	232	0	848		0	0	1	0	1	
	7:30 AM	34	17	30	7	30	88	38	311	18	13	247	2	835		0	0	0	0	0	
	7:45 AM	39	37	29	11	49	78	30	334	19	7	247	1	881		0	0	0	0	0	
	8:00 AM	43	25	21	3	44	64	18	332	30	11	285	3	879		0	0	0	0	0	
	8:15 AM	47	23	30	9	27	52	27	306	26	14	253	1	815		0	0	0	1	1	
	8:30 AM	36	18	23	9	22	55	27	259	23	9	255	1	737		0	0	1	0	1	
	8:45 AM	35	22	20	8	28	52	29	267	15	9	204	3	692		0	1	0	0	1	
	VOLUMES	332	177	176	60	263	546	214	2,435	162	83	1,962	12	6,422		0	1	2	1	4	
	APPROACH %	48%	26%	26%	7%	30%	63%	8%	87%	6%	4%	95%	1%								
APP/DEPART	685	/	402	869	/	507	2,811	/	2,671	2,057	/	2,842	0								
BEGIN PEAK HR	7:15 AM																				
VOLUMES	169	100	96	30	159	312	110	1,322	87	41	1,011	6	3,443								
APPROACH %	46%	27%	26%	6%	32%	62%	7%	87%	6%	4%	96%	1%									
PEAK HR FACTOR	0.869			0.908			0.976			0.885			0.977								
APP/DEPART	365	/	215	501	/	287	1,519	/	1,448	1,058	/	1,493	0								
PM	04:00 PM	39	56	20	12	75	128	41	258	33	21	272	2	957		0	0	0	0	0	
	4:15 PM	43	47	32	10	72	120	42	281	33	22	296	1	999		0	0	0	0	0	
	4:30 PM	41	53	31	16	69	127	45	265	25	11	309	1	993		0	0	0	0	0	
	4:45 PM	48	44	19	18	75	114	28	263	25	18	324	3	979		0	0	1	0	1	
	5:00 PM	52	56	22	12	99	139	44	248	23	21	281	3	1,000		0	1	1	1	3	
	5:15 PM	63	56	37	11	71	99	32	243	36	14	319	2	983		0	0	1	0	1	
	5:30 PM	57	57	35	15	76	118	45	238	22	13	212	2	890		0	0	1	0	1	
	5:45 PM	62	57	31	6	50	100	38	235	27	16	252	3	877		0	0	0	0	0	
	VOLUMES	405	426	227	100	587	945	315	2,031	224	136	2,265	17	7,678		0	1	4	1	6	
	APPROACH %	38%	40%	21%	6%	36%	58%	12%	79%	9%	6%	94%	1%								
	APP/DEPART	1,058	/	755	1,632	/	946	2,570	/	2,358	2,418	/	3,619	0							
	BEGIN PEAK HR	4:15 PM																			
	VOLUMES	184	200	104	56	315	500	159	1,057	106	72	1,210	8	3,971							
	APPROACH %	38%	41%	21%	6%	36%	57%	12%	80%	8%	6%	94%	1%								
PEAK HR FACTOR	0.938			0.871			0.928			0.935			0.993								
APP/DEPART	488	/	366	871	/	492	1,322	/	1,217	1,290	/	1,896	0								

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

EAST SIDE

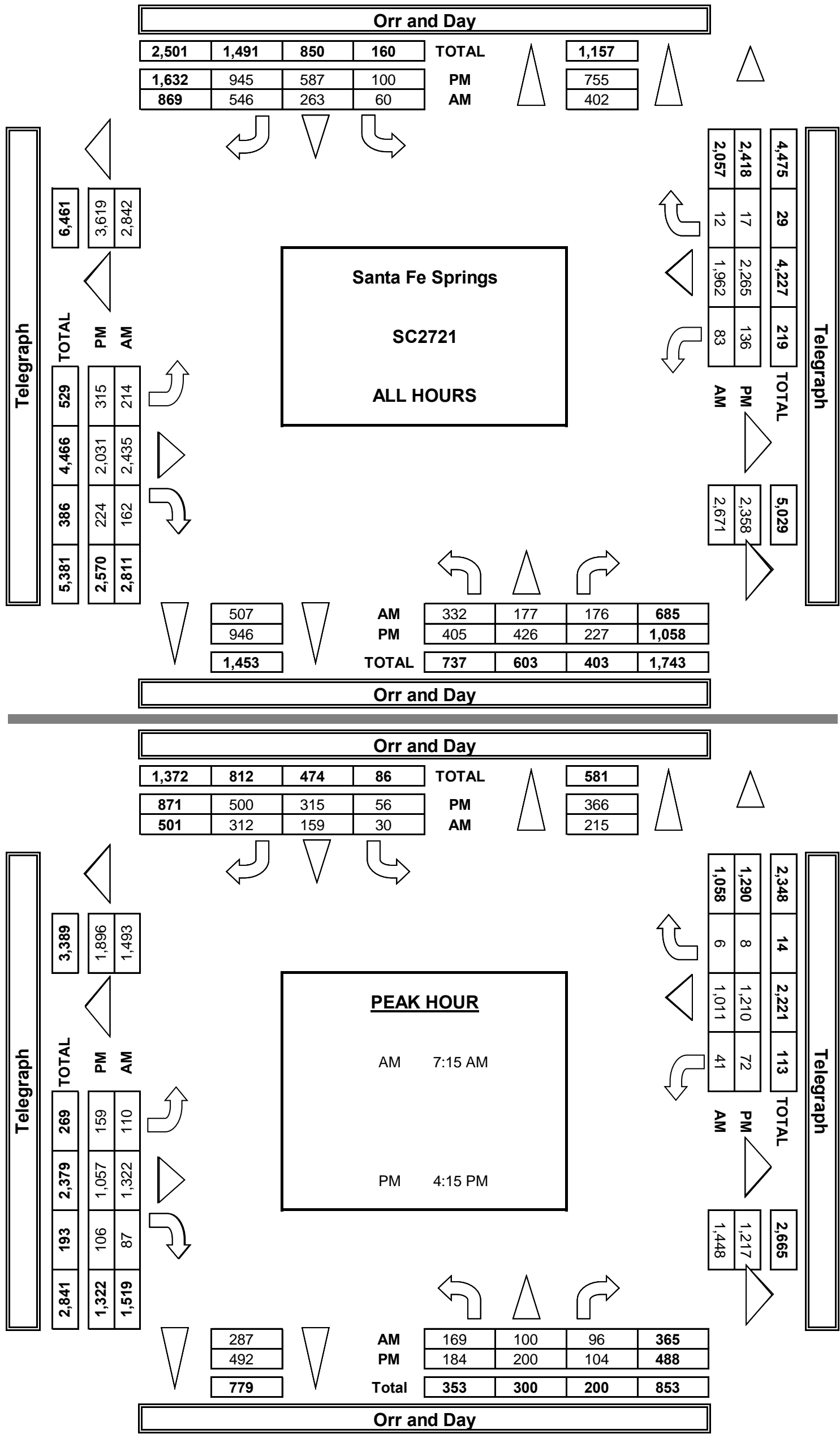
Telegraph

SOUTH SIDE

Orr and Day

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	7:15 AM	0	3	1	0	4	0	2	1	0	3	0	1	0	0	1
	7:30 AM	0	3	2	0	5	0	1	2	0	3	0	2	0	0	2
	7:45 AM	0	2	0	1	3	0	2	0	1	3	0	0	0	0	0
	8:00 AM	1	2	2	0	5	1	1	2	0	4	0	1	0	0	1
	8:15 AM	3	2	1	1	7	1	2	1	1	5	2	0	0	0	2
	8:30 AM	4	1	2	1	8	4	1	2	1	8	0	0	0	0	0
	8:45 AM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
TOTAL		9	14	8	5	36	7	10	8	5	30	2	4	0	0	6
PM	4:00 PM	2	1	2	5	10	0	0	1	4	5	2	1	1	1	5
	4:15 PM	3	4	4	7	18	3	1	4	5	13	0	3	0	2	5
	4:30 PM	2	3	4	1	10	2	1	4	1	8	0	2	0	0	2
	4:45 PM	1	0	1	1	3	1	0	1	1	3	0	0	0	0	0
	5:00 PM	3	3	5	1	12	3	1	4	0	8	0	2	1	1	4
	5:15 PM	11	5	8	6	30	7	0	7	3	17	4	5	1	3	13
	5:30 PM	1	3	6	1	11	0	1	5	1	7	1	2	1	0	4
5:45 PM	2	10	9	0	21	1	8	7	0	16	1	2	2	0	5	
TOTAL		25	29	39	22	115	17	12	33	15	77	8	17	6	7	38

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Orr and Day Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 7 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Orr and Day			Orr and Day			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	48	14	7	4	29	80	24	311	12	12	288	1	827					0
	7:15 AM	56	24	19	10	41	87	25	376	21	11	269	0	937					0
	7:30 AM	37	18	32	7	31	91	39	336	20	15	298	2	924					0
	7:45 AM	43	39	30	12	53	83	31	354	21	10	297	2	972					0
	8:00 AM	45	26	22	3	45	68	19	368	32	12	335	3	975					0
	8:15 AM	54	24	30	9	29	55	28	341	27	16	298	1	911					0
	8:30 AM	38	18	27	9	24	60	32	292	24	10	297	1	830					0
	8:45 AM	38	24	20	9	28	54	32	302	15	10	248	4	781					0
	VOLUMES	357	185	186	63	279	577	228	2,679	170	93	2,327	13	7,154	0	0	0	0	0
	APPROACH %	49%	25%	26%	7%	30%	63%	7%	87%	6%	4%	96%	1%						
	APP/DEPART	728	/	426	918	/	541	3,076	/	2,928	2,433	/	3,260	0					
	BEGIN PEAK HR	7:15 AM																	
	VOLUMES	180	106	102	32	170	329	112	1,434	93	47	1,198	7	3,807					
	APPROACH %	46%	27%	26%	6%	32%	62%	7%	87%	6%	4%	96%	1%						
	PEAK HR FACTOR	0.873			0.894			0.972			0.896			0.976					
PM	APP/DEPART	388	/	224	530	/	309	1,639	/	1,568	1,251	/	1,706	0					
	04:00 PM	39	58	21	12	76	130	43	295	35	22	287	2	1,019					0
	4:15 PM	45	48	33	10	73	121	43	318	35	23	320	1	1,069					0
	4:30 PM	41	55	33	16	71	133	46	286	26	11	327	1	1,044					0
	4:45 PM	51	44	19	18	77	118	30	283	25	18	347	4	1,033					0
	5:00 PM	53	58	23	12	102	140	44	268	23	21	299	4	1,045					0
	5:15 PM	64	57	39	11	74	101	33	259	37	15	340	2	1,030					0
	5:30 PM	57	58	36	16	78	119	46	265	23	13	220	3	932					0
	5:45 PM	64	58	32	6	52	103	39	262	28	16	269	3	930					0
	VOLUMES	413	435	235	101	601	965	322	2,235	230	139	2,408	19	8,100	0	0	0	0	0
	APPROACH %	38%	40%	22%	6%	36%	58%	12%	80%	8%	5%	94%	1%						
	APP/DEPART	1,082	/	775	1,666	/	970	2,787	/	2,570	2,566	/	3,786	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	190	204	108	56	323	512	162	1,155	108	73	1,292	10	4,190					
	APPROACH %	38%	41%	21%	6%	36%	57%	11%	81%	8%	5%	94%	1%						
	PEAK HR FACTOR	0.938			0.878			0.900			0.932			0.980					
	APP/DEPART	501	/	376	890	/	504	1,425	/	1,318	1,375	/	1,993	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr and Day			Orr and Day			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	40	14	7	4	24	69	19	255	10	8	183	1	634
	7:15 AM	48	17	12	8	27	75	23	316	18	9	181	0	734
	7:30 AM	31	15	27	7	29	82	37	280	15	11	197	2	733
	7:45 AM	32	35	28	9	45	70	29	311	16	5	196	0	776
	8:00 AM	39	24	20	3	42	61	17	294	27	10	230	3	770
	8:15 AM	42	22	30	9	25	46	25	267	25	12	199	1	703
	8:30 AM	33	18	18	9	21	46	20	227	22	8	200	1	623
	8:45 AM	31	20	20	6	28	48	23	232	15	8	155	2	588
	VOLUMES	296	165	162	55	241	497	193	2,182	148	71	1,541	10	5,561
	APPROACH %	48%	26%	26%	7%	30%	63%	8%	86%	6%	4%	95%	1%	
	APP/DEPART	623	/	367	793	/	459	2,523	/	2,399	1,622	/	2,336	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	150	91	87	27	143	288	105	1,201	76	35	804	5	3,013
	APPROACH %	46%	28%	27%	6%	31%	63%	8%	87%	5%	4%	95%	1%	
PM	PEAK HR FACTOR	0.863			0.923			0.968			0.868			0.971
	APP/DEPART	328	/	201	458	/	254	1,383	/	1,315	844	/	1,243	0
	04:00 PM	39	54	19	12	74	124	37	220	29	19	252	2	881
	4:15 PM	40	46	30	10	70	118	40	237	30	21	269	1	912
	4:30 PM	41	51	28	16	66	116	44	240	24	11	286	1	924
	4:45 PM	45	44	19	18	73	109	26	231	25	18	302	2	912
	5:00 PM	50	53	21	12	96	138	44	225	23	21	267	2	952
	5:15 PM	61	54	34	11	67	95	31	226	35	13	302	2	931
	5:30 PM	57	56	34	14	73	116	44	215	21	13	206	1	850
	5:45 PM	59	55	29	6	48	97	37	213	25	16	235	3	823
	VOLUMES	392	413	214	99	567	913	303	1,807	212	132	2,119	14	7,185
	APPROACH %	38%	41%	21%	6%	36%	58%	13%	78%	9%	6%	94%	1%	
	APP/DEPART	1,019	/	727	1,579	/	910	2,322	/	2,120	2,265	/	3,428	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	176	194	98	55	305	481	152	933	102	70	1,124	6	3,700
	APPROACH %	38%	41%	21%	7%	36%	57%	13%	78%	9%	6%	94%	0%	
	PEAK HR FACTOR	0.944			0.856			0.965			0.932			0.972
	APP/DEPART	468	/	353	842	/	477	1,189	/	1,087	1,201	/	1,783	0

0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
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0	0	1	0	1
0	1	0	0	1
0	1	2	1	4

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	1	1	1	3
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	1	4	1	6

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Orr and Day

EAST SIDE

Telegraph

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr and Day			Orr and Day			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	5	0	0	0	3	5	1	13	1	1	38	0	67
	7:15 AM	5	3	3	1	8	6	1	16	2	0	42	0	87
	7:30 AM	2	2	2	0	1	6	1	24	3	1	31	0	73
	7:45 AM	7	1	0	2	2	6	1	16	3	1	31	1	71
	8:00 AM	4	1	1	0	2	1	1	24	2	1	37	0	74
	8:15 AM	2	0	0	0	1	6	2	26	1	0	39	0	77
	8:30 AM	3	0	2	0	0	9	6	20	1	1	43	0	85
	8:45 AM	3	1	0	2	0	4	6	23	0	1	33	1	74
	VOLUMES	31	8	8	5	17	43	19	162	13	6	294	2	608
	APPROACH %	66%	17%	17%	8%	26%	66%	10%	84%	7%	2%	97%	1%	
	APP/DEPART	47	/	29	65	/	36	194	/	175	302	/	368	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	18	7	6	3	13	19	4	80	10	3	141	1	305
	APPROACH %	58%	23%	19%	9%	37%	54%	4%	85%	11%	2%	97%	1%	
PM	PEAK HR FACTOR	0.705			0.583			0.839			0.863			0.876
	APP/DEPART	31	/	12	35	/	26	94	/	89	145	/	178	0
	04:00 PM	0	1	1	0	1	4	4	24	4	2	16	0	57
	4:15 PM	3	1	2	0	2	2	2	32	3	0	18	0	65
	4:30 PM	0	1	2	0	2	10	1	19	1	0	18	0	54
	4:45 PM	2	0	0	0	1	4	1	28	0	0	13	0	49
	5:00 PM	2	2	1	0	2	1	0	16	0	0	7	1	32
	5:15 PM	2	2	3	0	3	4	1	10	1	0	8	0	34
	5:30 PM	0	0	0	1	3	2	1	12	1	0	2	1	23
	5:45 PM	3	2	2	0	1	2	1	11	2	0	10	0	34
	VOLUMES	12	9	11	1	15	29	11	152	12	2	92	2	348
	APPROACH %	38%	28%	34%	2%	33%	64%	6%	87%	7%	2%	96%	2%	
	APP/DEPART	32	/	22	45	/	29	175	/	164	96	/	133	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	7	4	5	0	7	17	4	95	4	0	56	1	200
	APPROACH %	44%	25%	31%	0%	29%	71%	4%	92%	4%	0%	98%	2%	
	PEAK HR FACTOR	0.667			0.500			0.696			0.792			0.769
	APP/DEPART	16	/	9	24	/	11	103	/	100	57	/	80	0

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0	0	0	0	0
0	0	0	0	0

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Orr and Day

EAST SIDE

Telegraph

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr and Day			Orr and Day			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	3	0	1	3	0	

AM	7:00 AM	0	0	0	0	0	0	3	0	0	6	0	9	
	7:15 AM	0	0	0	0	0	0	2	0	0	2	0	4	
	7:30 AM	0	0	0	0	0	0	1	0	0	2	0	3	
	7:45 AM	0	0	0	0	0	1	1	0	0	6	0	8	
	8:00 AM	0	0	0	0	0	1	4	0	0	5	0	10	
	8:15 AM	0	0	0	0	0	0	3	0	0	4	0	7	
	8:30 AM	0	0	0	0	0	0	1	0	0	4	0	5	
	8:45 AM	1	0	0	0	0	0	1	0	0	4	0	6	
	VOLUMES	1	0	0	0	0	2	0	16	0	0	33	0	52
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
APP/DEPART	1	/	0	2	/	0	16	/	16	33	/	36	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	0	0	0	0	2	0	8	0	0	15	0	25	
APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%		
PEAK HR FACTOR	0.000			0.500			0.500			0.625			0.625	
APP/DEPART	0	/	0	2	/	0	8	/	8	15	/	17	0	
PM	04:00 PM	0	0	0	0	0	0	3	0	0	0	0	3	
	4:15 PM	0	0	0	0	0	0	2	0	0	2	0	4	
	4:30 PM	0	0	0	0	0	1	1	0	0	1	0	3	
	4:45 PM	0	0	0	0	0	0	1	2	0	0	1	1	5
	5:00 PM	0	0	0	0	0	0	2	0	0	0	0	2	
	5:15 PM	0	0	0	0	0	0	2	0	0	0	0	2	
	5:30 PM	0	0	0	0	0	0	1	0	0	1	0	2	
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	2	
	VOLUMES	0	0	0	0	0	1	1	14	0	0	6	1	23
	APPROACH %	0%	0%	0%	0%	0%	100%	7%	93%	0%	0%	86%	14%	
	APP/DEPART	0	/	2	1	/	0	15	/	14	7	/	7	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	0	0	0	0	1	1	7	0	0	4	1	14
	APPROACH %	0%	0%	0%	0%	0%	100%	13%	88%	0%	0%	80%	20%	
PEAK HR FACTOR	0.000			0.250			0.667			0.625			0.700	
APP/DEPART	0	/	2	1	/	0	8	/	7	5	/	5	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Orr and Day

EAST SIDE

Telegraph



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr and Day			Orr and Day			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	1	1	10	0	0	12	0	24
	7:15 AM	0	0	0	0	0	1	0	10	0	0	7	0	18
	7:30 AM	1	0	0	0	0	0	0	6	0	0	16	0	23
	7:45 AM	0	0	0	0	1	0	0	5	0	1	14	0	21
	8:00 AM	0	0	0	0	0	1	0	10	0	0	13	0	24
	8:15 AM	3	0	0	0	0	0	0	9	0	0	10	0	22
	8:30 AM	0	0	0	0	1	0	1	11	0	0	8	0	21
	8:45 AM	0	0	0	0	0	0	0	11	0	0	11	0	22
	VOLUMES	4	0	0	0	2	3	2	72	0	1	91	0	175
	APPROACH %	100%	0%	0%	0%	40%	60%	3%	97%	0%	1%	99%	0%	
	APP/DEPART	4	/	2	5	/	3	74	/	72	92	/	98	0
BEGIN PEAK HR	7:15 AM													
VOLUMES	1	0	0	0	1	2	0	31	0	1	50	0	86	
APPROACH %	100%	0%	0%	0%	33%	67%	0%	100%	0%	2%	98%	0%		
PEAK HR FACTOR	0.250			0.750			0.775			0.797			0.896	
APP/DEPART	1	/	0	3	/	2	31	/	31	51	/	53	0	
PM	04:00 PM	0	0	0	0	0	0	0	11	0	0	3	0	14
	4:15 PM	0	0	0	0	0	0	0	9	0	0	6	0	15
	4:30 PM	0	0	0	0	0	0	0	5	0	0	4	0	9
	4:45 PM	1	0	0	0	0	1	0	2	0	0	7	0	11
	5:00 PM	0	0	0	0	1	0	0	5	0	0	7	0	13
	5:15 PM	0	0	0	0	0	0	0	4	0	0	8	0	12
	5:30 PM	0	0	0	0	0	0	0	10	0	0	3	0	13
	5:45 PM	0	0	0	0	0	1	0	10	0	0	5	0	16
	VOLUMES	1	0	0	0	1	2	0	56	0	0	43	0	103
	APPROACH %	100%	0%	0%	0%	33%	67%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	1	/	0	3	/	1	56	/	56	43	/	46	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	1	0	0	0	1	1	0	21	0	0	24	0	48
	APPROACH %	100%	0%	0%	0%	50%	50%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.250			0.500			0.583			0.857			0.800	
APP/DEPART	1	/	0	2	/	1	21	/	21	24	/	26	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Orr and Day

EAST SIDE

Telegraph

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

CLASS 5:

RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr and Day			Orr and Day			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Orr and Day

EAST SIDE

Telegraph



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr and Day  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
7  
SIGNAL

CLASS 6:

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Orr and Day			Orr and Day			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					
AM	7:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
	7:15 AM	0	1	1	0	1	0	1	0	1	0	0	5	0	0	0	0	0
	7:30 AM	0	0	1	0	0	0	0	0	1	1	0	3	0	0	0	0	0
	7:45 AM	0	1	1	0	1	1	1	0	0	0	0	5	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
	8:15 AM	0	1	0	0	1	0	1	0	2	1	0	6	0	0	0	0	0
	8:30 AM	0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
	VOLUMES	0	4	6	0	3	1	0	3	5	3	0	26					
	APPROACH %	0%	40%	60%	0%	75%	25%	0%	75%	63%	38%	0%						
	APP/DEPART	10	/	4	4	/	9	4	/	8	/	4	0					
	BEGIN PEAK HR	7:15 AM																
PM	VOLUMES	0	2	3	0	2	1	0	2	2	1	0	14					
	APPROACH %	0%	40%	60%	0%	67%	33%	0%	67%	67%	33%	0%						
	PEAK HR FACTOR	0.625			0.375			0.750			0.375			0.700				
	APP/DEPART	5	/	2	3	/	5	3	/	3	/	2	0					
	04:00 PM	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	1	0	1	1	0	3	0	0	0	0	0
	4:30 PM	0	1	1	0	1	0	0	0	0	0	0	3	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	1	1	1	0	4	0	0	0	0	0
	5:30 PM	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0
	VOLUMES	0	4	2	0	4	0	0	2	2	5	0	19					
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	100%	29%	71%	0%						
	APP/DEPART	6	/	4	4	/	6	2	/	7	/	5	0					
	BEGIN PEAK HR	4:15 PM																
	VOLUMES	0	2	1	0	2	0	0	1	1	2	0	9					
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	100%	33%	67%	0%						
	PEAK HR FACTOR	0.375			0.500			0.250			0.375			0.750				
	APP/DEPART	3	/	2	2	/	3	1	/	3	/	2	0					

Orr and Day

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Orr and Day

EAST SIDE

Telegraph

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
8  
SIGNAL

NOTES:

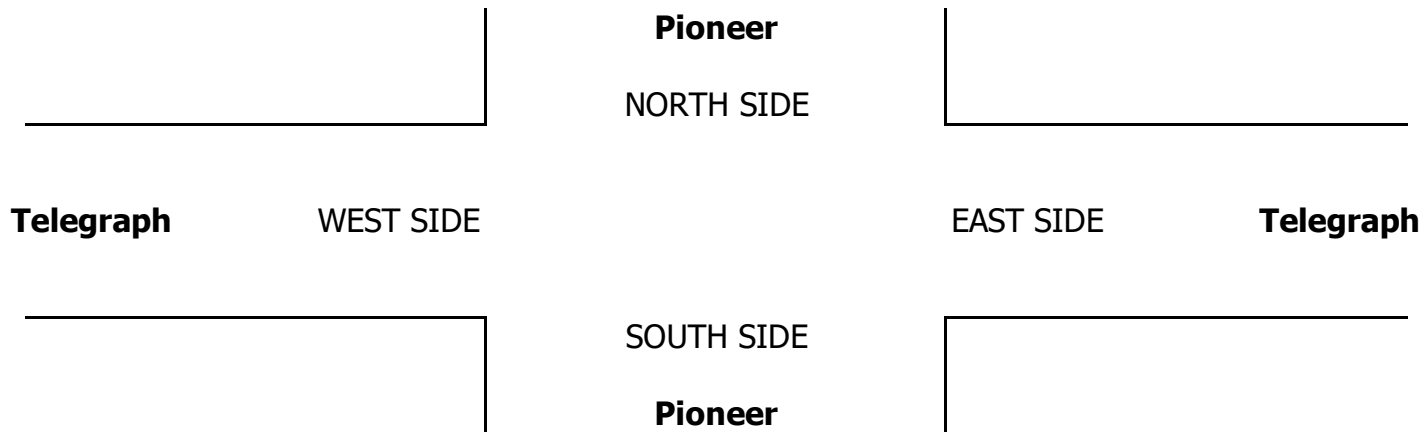
AM  
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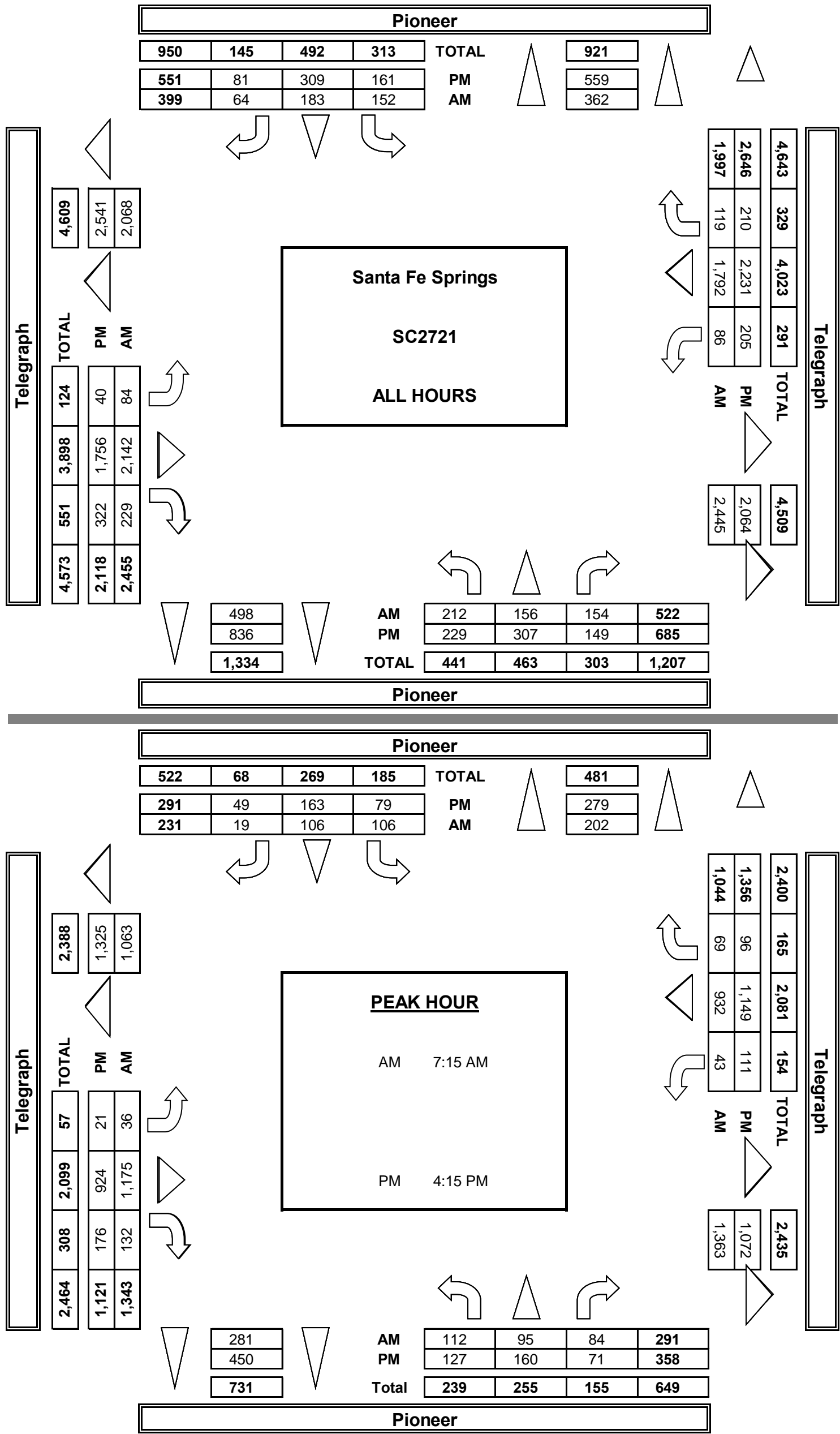
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	U-TURNS				
		Pioneer			Pioneer			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0		0	0	0	0	0
AM	7:00 AM	18	12	8	16	22	15	12	237	15	5	210	11	581	0	0	0	0	0
	7:15 AM	25	19	16	23	18	4	9	295	31	13	237	19	709	0	0	0	0	0
	7:30 AM	29	20	16	36	31	3	6	291	28	8	233	18	719	0	0	0	0	0
	7:45 AM	25	37	29	25	34	8	7	302	45	20	211	18	761	0	1	0	0	1
	8:00 AM	33	19	23	22	23	4	14	287	28	2	251	14	720	0	1	0	0	1
	8:15 AM	36	19	21	13	21	11	5	271	29	13	231	16	686	0	0	0	0	0
	8:30 AM	19	17	23	8	21	11	15	238	28	14	212	10	616	0	0	0	0	0
	8:45 AM	27	13	18	9	13	8	16	221	25	11	207	13	581	0	1	0	0	1
	VOLUMES	212	156	154	152	183	64	84	2,142	229	86	1,792	119	5,373	0	3	0	0	3
	APPROACH %	41%	30%	30%	38%	46%	16%	3%	87%	9%	4%	90%	6%						
APP/DEPART	522	/	362	399	/	498	2,455	/	2,445	1,997	/	2,068	0						
BEGIN PEAK HR	7:15 AM												2,909						
VOLUMES	112	95	84	106	106	19	36	1,175	132	43	932	69							
APPROACH %	38%	33%	29%	46%	46%	8%	3%	87%	10%	4%	89%	7%							
PEAK HR FACTOR	0.799			0.825			0.948			0.970			0.956						
APP/DEPART	291	/	202	231	/	281	1,343	/	1,363	1,044	/	1,063	0						
PM	04:00 PM	34	40	26	15	43	10	2	209	31	26	300	18	754	0	0	0	0	0
	4:15 PM	27	42	13	11	40	13	4	266	43	18	239	22	738	0	0	0	0	0
	4:30 PM	37	43	25	24	49	20	6	212	43	30	353	26	868	0	1	0	0	1
	4:45 PM	25	39	22	20	33	4	4	249	41	30	241	22	730	0	1	0	0	1
	5:00 PM	38	36	11	24	41	12	7	197	49	33	316	26	790	0	0	0	0	0
	5:15 PM	20	41	18	24	34	8	8	214	45	25	257	31	725	0	0	0	0	0
	5:30 PM	25	35	21	18	47	11	1	206	33	22	310	38	767	0	0	0	0	0
	5:45 PM	23	31	13	25	22	3	8	203	37	21	215	27	628	0	0	0	0	0
	VOLUMES	229	307	149	161	309	81	40	1,756	322	205	2,231	210	6,000	0	2	0	0	2
	APPROACH %	33%	45%	22%	29%	56%	15%	2%	83%	15%	8%	84%	8%						
APP/DEPART	685	/	559	551	/	836	2,118	/	2,064	2,646	/	2,541	0						
BEGIN PEAK HR	4:15 PM												3,126						
VOLUMES	127	160	71	79	163	49	21	924	176	111	1,149	96							
APPROACH %	35%	45%	20%	27%	56%	17%	2%	82%	16%	8%	85%	7%							
PEAK HR FACTOR	0.852			0.782			0.895			0.829			0.900						
APP/DEPART	358	/	279	291	/	450	1,121	/	1,072	1,356	/	1,325	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	2	2	0	0	4	2	2	0	0	4	0	0	0	0	0
	7:30 AM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:00 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	8:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:30 AM	0	2	0	1	3	0	1	0	1	2	0	1	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		2	8	0	3	13	2	4	0	3	9	0	4	0	0	4
PM	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:15 PM	2	0	0	1	3	1	0	0	0	1	1	0	0	1	2
	4:30 PM	0	1	1	1	3	0	0	0	1	1	0	1	1	0	2
	4:45 PM	0	2	0	2	4	0	1	0	2	3	0	1	0	0	1
	5:00 PM	2	12	5	2	21	1	11	4	2	18	1	1	1	0	3
	5:15 PM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	4	0	2	6	0	2	0	0	2	0	2	0	2	4
TOTAL		5	21	6	8	40	3	16	4	5	28	2	5	2	3	12

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

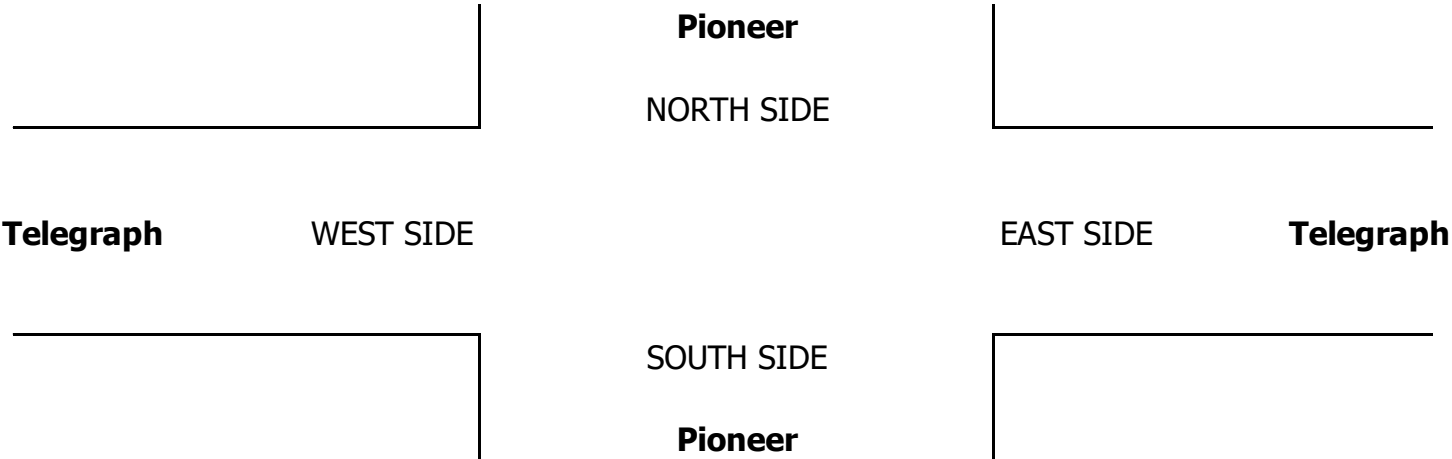
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Pioneer Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 8 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Pioneer			Pioneer			Telegraph			Telegraph								
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	18	12	9	16	23	21	14	267	15	5	254	13	664					0
	7:15 AM	28	20	16	24	19	6	11	322	32	14	288	20	796					0
	7:30 AM	34	20	17	39	33	5	8	316	33	8	276	19	806					0
	7:45 AM	28	39	36	26	35	9	8	325	46	24	258	19	850					0
	8:00 AM	37	22	24	24	23	5	20	318	29	2	299	14	814					0
	8:15 AM	38	20	24	14	23	17	6	305	30	14	271	17	776					0
	8:30 AM	20	18	24	9	22	16	19	274	32	16	252	11	710					0
	8:45 AM	31	14	23	9	14	9	17	245	25	11	255	15	666					0
	VOLUMES	232	162	171	159	191	85	101	2,370	241	93	2,151	126	6,081	0	0	0	0	0
	APPROACH %	41%	29%	30%	37%	44%	20%	4%	87%	9%	4%	91%	5%						
APP/DEPART	565	/	389	435	/	524	2,712	/	2,700	2,369	/	2,468	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	126	100	92	112	110	24	47	1,280	140	47	1,120	72	3,266						
APPROACH %	40%	31%	29%	46%	45%	10%	3%	87%	10%	4%	90%	6%							
PEAK HR FACTOR	0.777			0.804			0.968			0.965			0.960						
APP/DEPART	317	/	218	245	/	296	1,466	/	1,483	1,239	/	1,269	0						
PM	04:00 PM	36	43	29	16	44	11	3	239	32	27	322	19	818					0
	4:15 PM	28	43	13	12	42	17	4	302	45	19	259	23	805					0
	4:30 PM	37	44	26	26	50	21	7	231	44	35	374	26	919					0
	4:45 PM	29	41	25	20	34	4	5	267	44	31	260	22	780					0
	5:00 PM	41	39	11	24	42	12	9	212	51	34	336	27	837					0
	5:15 PM	21	42	20	25	35	8	10	232	45	25	278	32	771					0
	5:30 PM	26	36	21	19	49	11	1	233	34	23	327	38	815					0
	5:45 PM	23	34	13	29	23	4	9	229	38	23	231	27	681					0
	VOLUMES	239	321	157	170	317	87	47	1,943	332	216	2,385	213	6,424	0	0	0	0	0
	APPROACH %	33%	45%	22%	30%	55%	15%	2%	84%	14%	8%	85%	8%						
	APP/DEPART	717	/	580	573	/	864	2,322	/	2,270	2,813	/	2,711	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	134	167	75	82	167	54	25	1,012	184	118	1,228	97	3,340					
	APPROACH %	36%	44%	20%	27%	55%	18%	2%	83%	15%	8%	85%	7%						
PEAK HR FACTOR	0.877			0.791			0.870			0.830			0.909						
APP/DEPART	376	/	289	302	/	469	1,220	/	1,168	1,443	/	1,416	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Pioneer Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 8 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

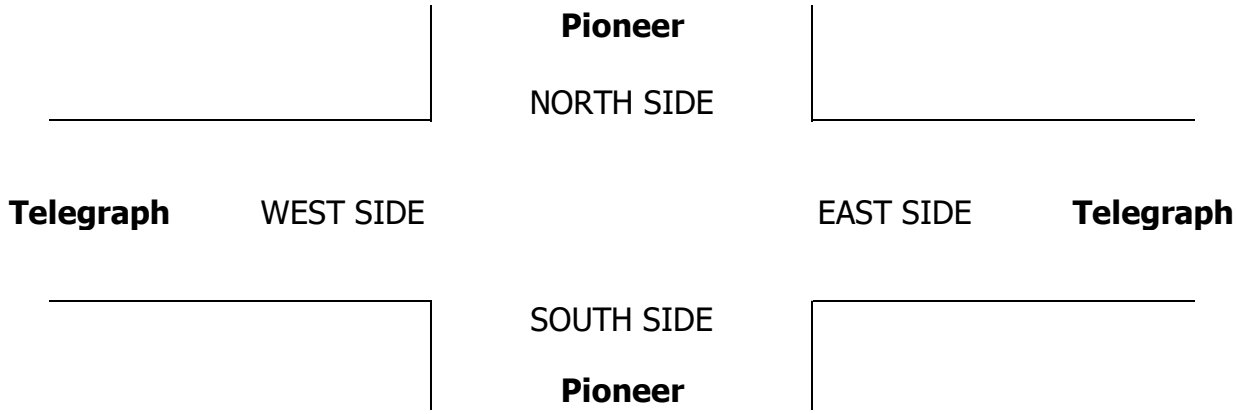
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	18	12	7	16	20	4	9	206	15	5	163	8	483
	7:15 AM	20	18	16	22	16	1	8	267	30	12	186	17	613
	7:30 AM	24	20	15	32	27	0	5	261	22	8	192	17	623
	7:45 AM	23	35	24	24	33	6	5	275	43	17	159	16	660
	8:00 AM	29	16	22	18	23	3	6	256	26	2	193	14	608
	8:15 AM	35	18	18	12	18	5	4	235	28	11	181	15	580
	8:30 AM	18	16	21	6	19	4	10	202	24	11	164	9	504
	8:45 AM	22	12	13	9	11	7	15	198	25	11	158	10	491
	VOLUMES	189	147	136	139	167	30	62	1,900	213	77	1,396	106	4,562
	APPROACH %	40%	31%	29%	41%	50%	9%	3%	87%	10%	5%	88%	7%	
	APP/DEPART	472	/	318	336	/	457	2,175	/	2,172	1,579	/	1,615	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	96	89	77	94	99	10	24	1,059	121	39	730	64	2,504
	APPROACH %	37%	34%	29%	46%	48%	5%	2%	88%	10%	5%	88%	8%	
	PEAK HR FACTOR	0.799			0.813			0.932			0.960			0.948
	APP/DEPART	262	/	179	205	/	259	1,204	/	1,230	833	/	836	0
PM	04:00 PM	31	35	23	13	42	9	1	180	30	24	270	17	675
	4:15 PM	26	40	13	10	37	11	4	230	39	17	214	21	662
	4:30 PM	37	41	23	22	48	19	4	188	41	27	329	26	805
	4:45 PM	21	35	20	20	31	4	3	223	39	28	220	22	666
	5:00 PM	35	30	11	24	39	12	6	180	45	32	297	25	736
	5:15 PM	18	40	15	22	32	8	5	197	45	25	242	29	678
	5:30 PM	24	34	21	17	43	11	1	185	32	21	295	38	722
	5:45 PM	23	28	13	18	21	2	6	182	36	20	200	27	576
	VOLUMES	215	283	139	146	293	76	30	1,565	307	194	2,067	205	5,520
	APPROACH %	34%	44%	22%	28%	57%	15%	2%	82%	16%	8%	84%	8%	
	APP/DEPART	637	/	520	515	/	794	1,902	/	1,848	2,466	/	2,358	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	119	146	67	74	155	46	17	821	164	104	1,060	94	2,869
	APPROACH %	36%	44%	20%	27%	56%	17%	2%	82%	16%	8%	84%	7%	
	PEAK HR FACTOR	0.822			0.778			0.918			0.823			0.891
	APP/DEPART	332	/	259	277	/	423	1,002	/	962	1,258	/	1,225	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	3	0	0	3

0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Pioneer Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 8 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	1	0	2	11	3	17	0	0	29	3	66
	7:15 AM	5	1	0	1	2	3	0	17	1	1	33	2	66
	7:30 AM	2	0	1	3	4	3	0	22	4	0	23	1	63
	7:45 AM	1	1	0	1	1	2	2	19	2	1	36	2	68
	8:00 AM	3	1	1	4	0	1	7	19	2	0	42	0	80
	8:15 AM	0	1	2	1	3	3	1	22	1	2	36	1	73
	8:30 AM	1	1	2	2	2	6	4	22	3	3	35	1	82
	8:45 AM	4	1	3	0	2	1	1	14	0	0	31	2	59
	VOLUMES	16	6	10	12	16	30	18	152	13	7	265	12	557
	APPROACH %	50%	19%	31%	21%	28%	52%	10%	83%	7%	2%	93%	4%	
	APP/DEPART	32	/	36	58	/	36	183	/	174	284	/	311	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	11	3	2	9	7	9	9	77	9	2	134	5	277
	APPROACH %	69%	19%	13%	36%	28%	36%	9%	81%	9%	1%	95%	4%	
	PEAK HR FACTOR	0.667			0.625			0.848			0.839			0.866
	APP/DEPART	16	/	17	25	/	18	95	/	88	141	/	154	0
PM	04:00 PM	3	5	2	2	1	1	0	19	0	2	22	1	58
	4:15 PM	1	2	0	0	3	0	0	21	4	0	19	1	51
	4:30 PM	0	2	2	1	1	1	2	18	2	1	16	0	46
	4:45 PM	3	4	1	0	2	0	1	22	1	2	13	0	49
	5:00 PM	2	6	0	0	2	0	0	12	4	1	12	1	40
	5:15 PM	2	1	3	2	2	0	3	9	0	0	5	2	29
	5:30 PM	1	1	0	1	4	0	0	9	1	1	7	0	25
	5:45 PM	0	2	0	7	1	1	2	10	1	0	8	0	32
	VOLUMES	12	23	8	13	16	3	8	120	13	7	102	5	330
	APPROACH %	28%	53%	19%	41%	50%	9%	6%	85%	9%	6%	89%	4%	
	APP/DEPART	43	/	36	32	/	36	141	/	141	114	/	117	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	6	14	3	1	8	1	3	73	11	4	60	2	186
	APPROACH %	26%	61%	13%	10%	80%	10%	3%	84%	13%	6%	91%	3%	
	PEAK HR FACTOR	0.719			0.833			0.870			0.825			0.912
	APP/DEPART	23	/	19	10	/	23	87	/	77	66	/	67	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Pioneer  
NORTH SIDE

Telegraph WEST SIDE EAST SIDE Telegraph

SOUTH SIDE  
Pioneer



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
8  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

AM	7:00 AM	0	0	0	0	0	0	7	0	0	5	0	12	
	7:15 AM	0	0	0	0	0	0	2	0	0	1	0	3	
	7:30 AM	1	0	0	0	0	0	1	0	0	5	0	7	
	7:45 AM	0	0	3	0	0	0	2	0	0	3	0	8	
	8:00 AM	0	2	0	0	0	0	3	0	0	3	0	8	
	8:15 AM	0	0	0	0	0	2	4	0	0	5	0	11	
	8:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	
	8:45 AM	0	0	1	0	0	0	0	0	0	3	0	4	
	VOLUMES	1	2	4	0	0	2	19	0	0	28	0	56	
	APPROACH %	14%	29%	57%	0%	0%	100%	0%	100%	0%	100%	0%		
	APP/DEPART	7	/	2	2	/	0	19	/	23	28	/	31	
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	1	2	3	0	0	0	0	8	0	0	12	0	26
	APPROACH %	17%	33%	50%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.500			0.000			0.667			0.600			0.813
	APP/DEPART	6	/	2	0	/	0	8	/	11	12	/	13	0
	04:00 PM	0	0	0	0	0	0	1	0	1	0	4	0	6
	4:15 PM	0	0	0	1	0	0	0	4	0	1	1	0	7
	4:30 PM	0	0	0	1	0	0	0	1	0	0	3	0	5
PM	4:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	VOLUMES	0	0	0	2	0	0	1	11	1	1	14	0	30
	APPROACH %	0%	0%	0%	100%	0%	0%	8%	85%	8%	7%	93%	0%	
	APP/DEPART	0	/	1	2	/	2	13	/	13	15	/	14	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	0	0	2	0	0	0	7	0	1	6	0	16
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	14%	86%	0%	
	PEAK HR FACTOR	0.000			0.500			0.438			0.583			0.571
	APP/DEPART	0	/	0	2	/	1	7	/	9	7	/	6	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Pioneer

NORTH SIDE

Telegraph

WEST SIDE

EAST SIDE

Telegraph

Pioneer

SOUTH SIDE

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
8  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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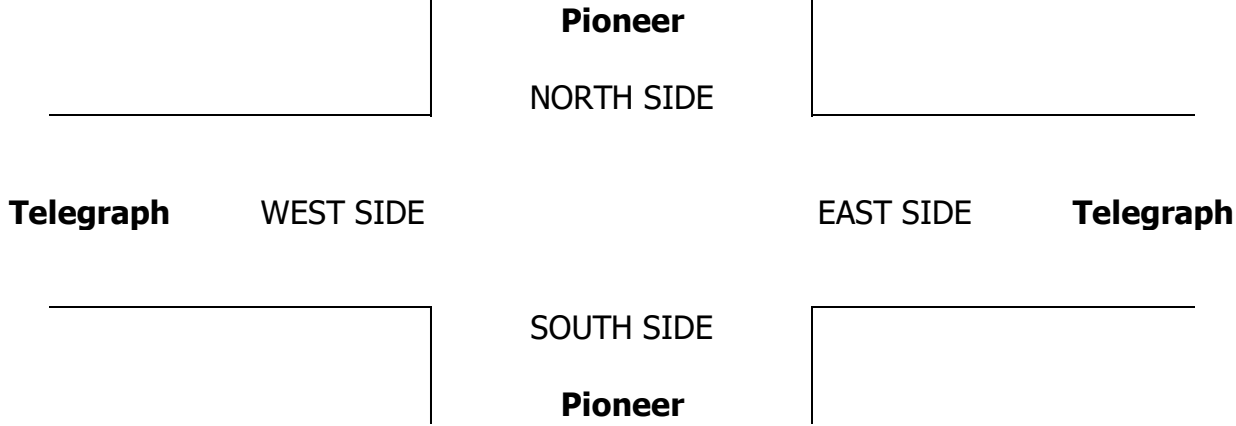
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	7	0	0	11	0	18	
	7:15 AM	0	0	0	0	0	0	1	7	0	0	16	24	
	7:30 AM	1	0	0	0	0	0	1	6	1	0	13	22	
	7:45 AM	1	0	2	0	0	0	0	5	0	1	13	22	
	8:00 AM	1	0	0	0	0	0	1	9	0	0	11	22	
	8:15 AM	1	0	1	0	0	1	0	9	0	0	8	20	
	8:30 AM	0	0	0	0	0	1	1	11	1	0	9	23	
	8:45 AM	1	0	1	0	0	0	0	8	0	0	14	24	
	VOLUMES	5	0	4	0	0	2	4	62	2	1	95	0	175
	APPROACH %	56%	0%	44%	0%	0%	100%	6%	91%	3%	1%	99%	0%	
	APP/DEPART	9	/	4	2	/	3	68	/	66	96	/	102	0
PM	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	0	2	0	0	0	3	27	1	1	53	0	90
	APPROACH %	60%	0%	40%	0%	0%	0%	10%	87%	3%	2%	98%	0%	
	PEAK HR FACTOR	0.417			0.000			0.775			0.844			0.938
	APP/DEPART	5	/	3	0	/	2	31	/	29	54	/	56	0
	4:00 PM	0	0	1	0	0	0	0	10	0	0	3	0	14
	4:15 PM	0	0	0	0	0	2	0	10	0	0	4	0	16
	4:30 PM	0	0	0	0	0	0	0	4	0	2	5	0	11
4:45 PM	1	0	1	0	0	0	0	3	1	0	4	0	10	
5:00 PM	1	0	0	0	0	0	1	4	0	0	7	0	13	
5:15 PM	0	0	0	0	0	0	0	5	0	0	8	0	13	
5:30 PM	0	0	0	0	0	0	0	10	0	0	5	0	15	
5:45 PM	0	1	0	0	0	0	0	10	0	1	5	0	17	
VOLUMES	2	1	2	0	0	2	1	56	1	3	41	0	109	
APPROACH %	40%	20%	40%	0%	0%	100%	2%	97%	2%	7%	93%	0%		
APP/DEPART	5	/	2	2	/	4	58	/	58	44	/	45	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	2	0	1	0	0	2	1	21	1	2	20	0	50	
APPROACH %	67%	0%	33%	0%	0%	100%	4%	91%	4%	9%	91%	0%		
PEAK HR FACTOR	0.375			0.250			0.575			0.786			0.781	
APP/DEPART	3	/	1	2	/	3	23	/	22	22	/	24	0	

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
8  
SIGNAL

CLASS 5:

RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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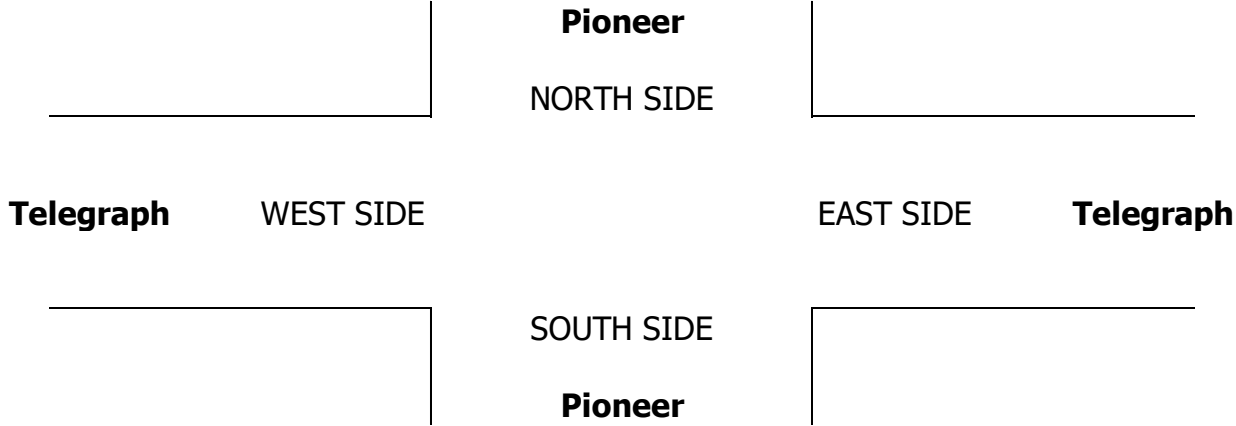
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	1	0	0	0	0	0	1	0	0	0	0	2
	APPROACH %	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	1	/	1	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	1
PM	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.000		
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
8  
SIGNAL

CLASS 6:

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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BUSES

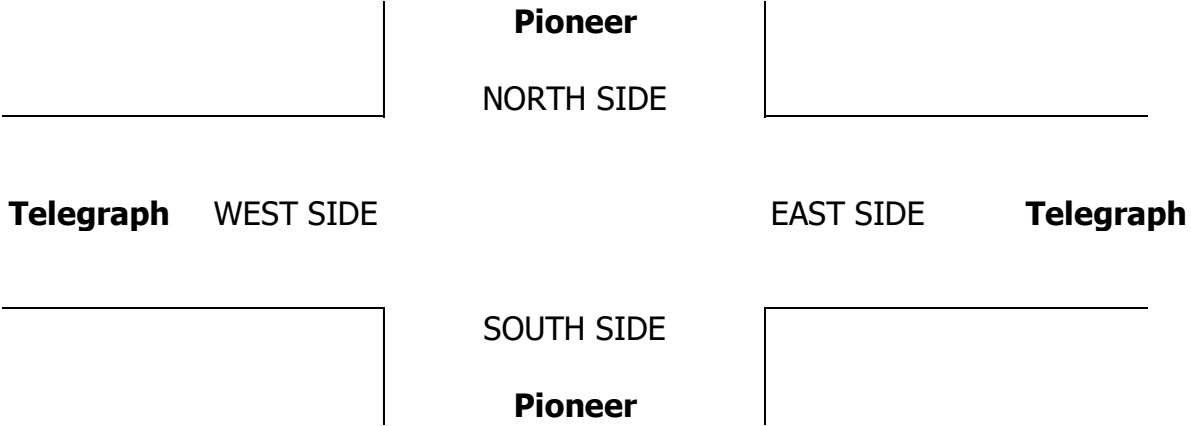
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL


AM	7:00 AM	0	0	0	0	0	0	0	0	0	2	0	2
	7:15 AM	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	0	0	0	1	0	0	1	1	0	0	0	3
	7:45 AM	0	1	0	0	0	0	1	0	1	0	0	3
	8:00 AM	0	0	0	0	0	0	0	0	0	2	0	2
	8:15 AM	0	0	0	0	0	0	1	0	0	1	0	2
	8:30 AM	0	0	0	0	0	0	3	0	0	1	0	4
	8:45 AM	0	0	0	0	0	0	0	0	0	1	1	2
	VOLUMES	0	1	0	1	0	0	8	1	1	8	1	21
	APPROACH %	0%	100%	0%	100%	0%	0%	89%	11%	10%	80%	10%	
	APP/DEPART	1	/	2	1	/	2	9	/	9	10	/	8
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	1	0	1	0	0	4	1	1	3	0	11
	APPROACH %	0%	100%	0%	100%	0%	0%	80%	20%	25%	75%	0%	
	PEAK HR FACTOR	0.250			0.250			0.625			0.500		
	APP/DEPART	1	/	1	1	/	2	5	/	5	4	/	3
	04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	2	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	1	0	0	2	0	3
	5:30 PM	0	0	0	0	0	0	1	0	0	1	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	4	0	0	7	0	11
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	7	/	7
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	2	0	0	3	0	5
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.500			0.375		
	APP/DEPART	0	/	0	0	/	0	2	/	2	3	/	3

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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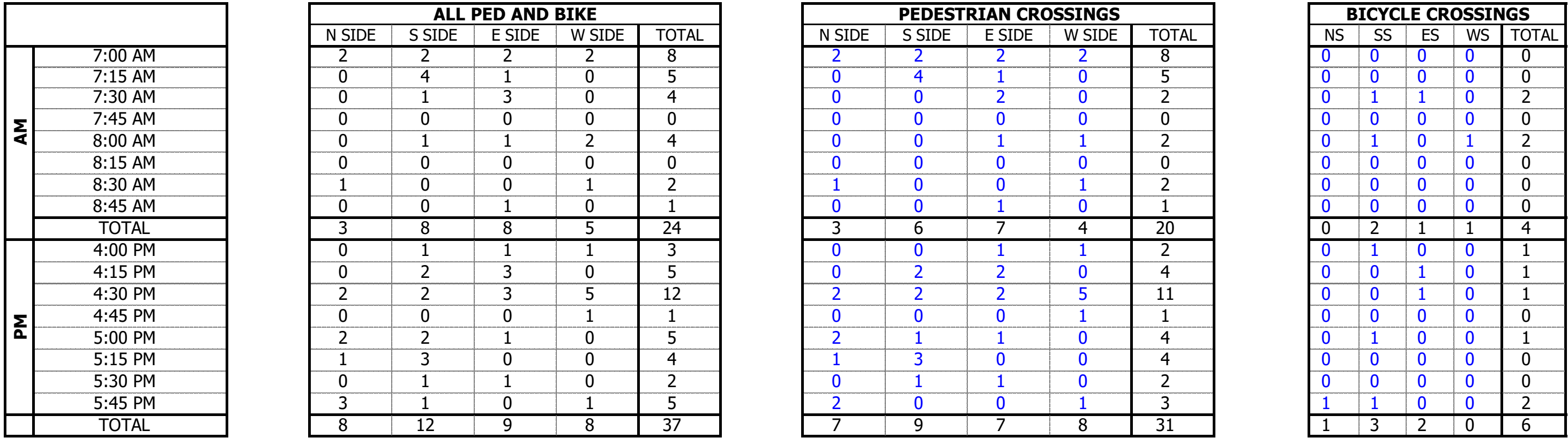
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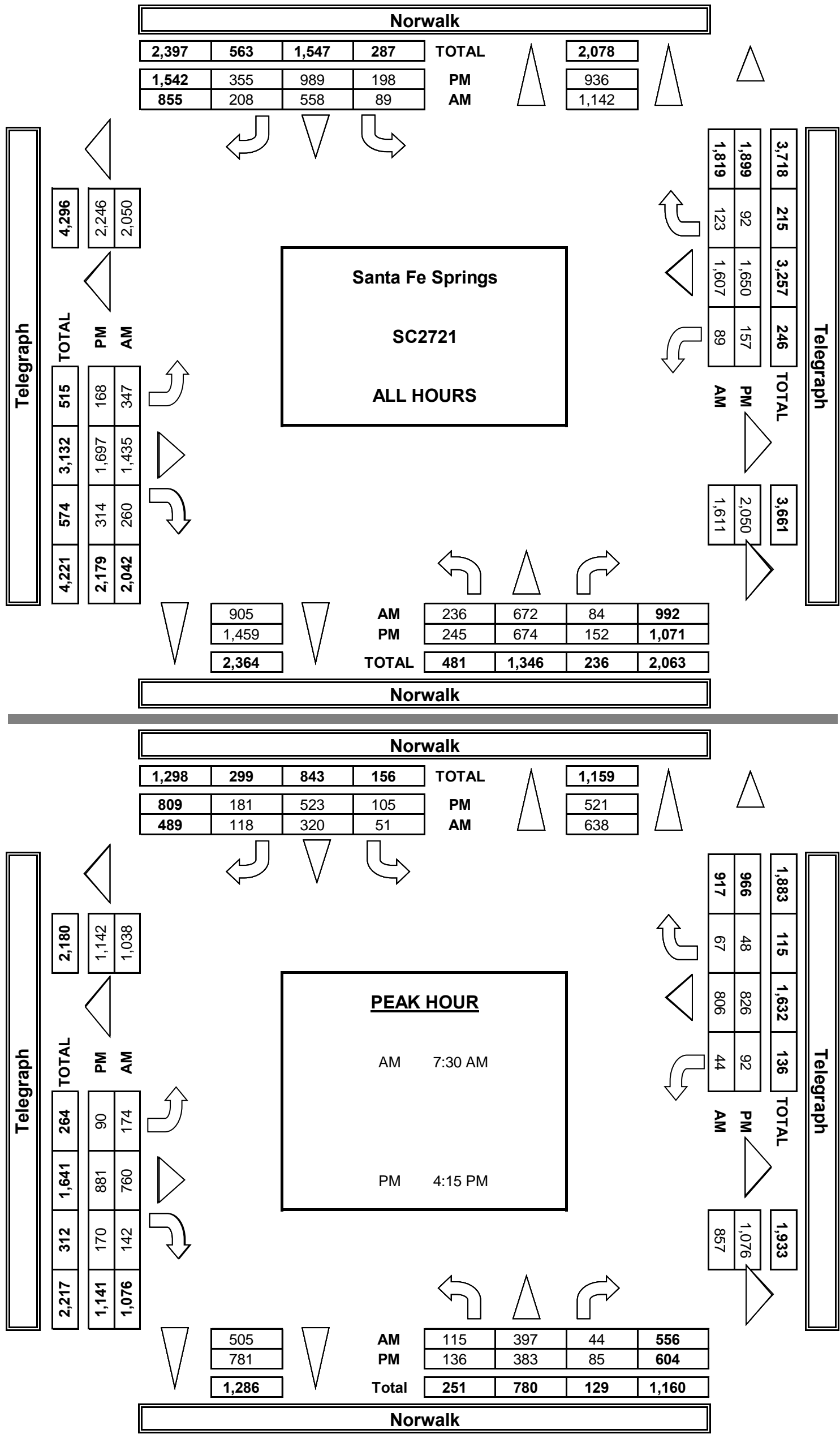
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

 Add U-Turns to Left Turns

1	0	0	0	1
0	0	0	3	3
0	0	0	0	0
0	0	0	1	1
1	0	0	1	2
1	2	0	0	3
1	0	0	0	1
0	0	0	0	0
4	2	0	5	11



AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

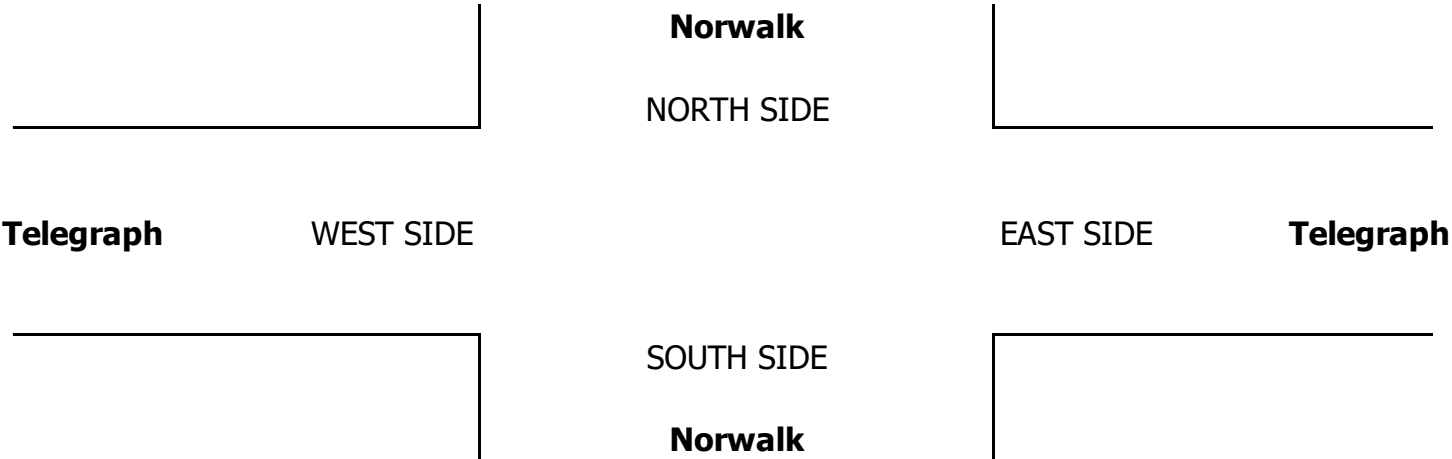
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 9 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	35	74	8	12	80	19	65	188	35	19	253	20	805					0
	7:15 AM	50	67	11	11	87	28	43	192	45	11	243	18	802					0
	7:30 AM	34	133	13	17	101	48	48	202	39	14	206	16	870					0
	7:45 AM	37	120	17	18	120	41	68	244	33	14	248	21	979					0
	8:00 AM	46	109	13	11	110	38	45	193	39	9	233	20	863					0
	8:15 AM	40	123	11	16	91	42	47	178	57	15	200	23	841					0
	8:30 AM	43	104	6	14	88	47	67	150	28	11	194	13	763					0
	8:45 AM	35	105	22	8	65	27	40	217	30	10	218	14	787					0
	VOLUMES	317	833	100	106	739	290	422	1,563	304	102	1,793	144	6,709	0	0	0	0	0
	APPROACH %	25%	67%	8%	9%	65%	26%	18%	68%	13%	5%	88%	7%						
	APP/DEPART	1,249	/	1,398	1,134	/	1,144	2,288	/	1,768	2,039	/	2,400	0					
BEGIN PEAK HR	7:30 AM																		
VOLUMES	156	484	54	62	421	169	207	816	168	52	886	80	3,553						
APPROACH %	22%	70%	8%	10%	65%	26%	17%	69%	14%	5%	87%	8%							
PEAK HR FACTOR	0.963			0.912			0.864			0.899			0.907						
APP/DEPART	694	/	771	651	/	640	1,191	/	932	1,018	/	1,211	0						
PM	04:00 PM	23	85	16	24	171	75	40	252	36	20	230	19	988					0
	4:15 PM	23	131	25	29	148	42	32	224	34	27	218	13	942					0
	4:30 PM	50	131	21	25	172	89	31	245	55	29	229	11	1,085					0
	4:45 PM	44	103	21	30	109	22	24	259	48	22	210	17	906					0
	5:00 PM	31	100	25	36	169	48	19	208	48	20	231	14	947					0
	5:15 PM	27	102	16	34	129	48	19	195	36	15	202	12	833					0
	5:30 PM	34	81	27	24	133	46	18	216	48	21	270	12	929					0
	5:45 PM	32	82	16	21	119	39	19	209	46	13	157	10	760					0
	VOLUMES	263	813	165	223	1,148	408	201	1,806	348	166	1,744	107	7,388	0	0	0	0	0
	APPROACH %	21%	66%	13%	13%	65%	23%	9%	77%	15%	8%	86%	5%						
	APP/DEPART	1,240	/	1,120	1,778	/	1,662	2,355	/	2,193	2,016	/	2,414	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	148	464	91	120	597	200	105	935	184	98	886	55	3,880					
	APPROACH %	21%	66%	13%	13%	65%	22%	9%	76%	15%	9%	85%	5%						
	PEAK HR FACTOR	0.875			0.801			0.925			0.967			0.894					
APP/DEPART	702	/	623	916	/	878	1,224	/	1,145	1,039	/	1,234	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 9 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

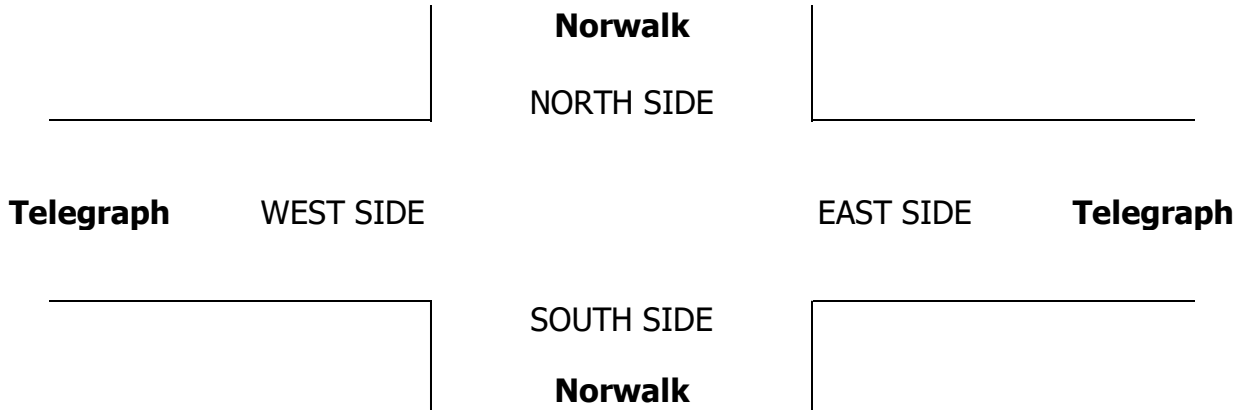
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	18	46	6	7	50	6	36	149	28	12	176	11	545
	7:15 AM	28	45	9	6	46	10	31	158	38	8	179	13	571
	7:30 AM	15	83	7	8	59	19	34	174	30	9	175	10	623
	7:45 AM	20	87	9	12	61	20	49	207	33	14	199	18	729
	8:00 AM	24	67	9	9	52	13	35	156	22	5	188	14	594
	8:15 AM	24	81	8	11	56	19	29	149	33	10	145	14	579
	8:30 AM	23	65	6	8	38	25	37	123	15	9	146	10	505
	8:45 AM	18	53	12	6	28	11	25	172	19	10	161	12	527
	VOLUMES	170	527	66	67	390	123	276	1,288	218	77	1,369	102	4,673
	APPROACH %	22%	69%	9%	12%	67%	21%	15%	72%	12%	5%	88%	7%	
	APP/DEPART	763	/	905	580	/	683	1,782	/	1,424	1,548	/	1,661	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	82	318	33	40	228	71	147	686	118	36	707	56	2,525
	APPROACH %	19%	73%	8%	12%	67%	21%	15%	72%	12%	4%	88%	7%	
PM	PEAK HR FACTOR	0.935			0.911			0.823			0.867			0.866
	APP/DEPART	434	/	521	339	/	383	951	/	761	801	/	860	0
	04:00 PM	20	57	10	15	106	57	22	211	25	18	206	14	761
	4:15 PM	18	75	17	24	99	26	18	185	30	20	187	8	707
	4:30 PM	45	86	19	22	133	72	22	206	42	27	199	11	884
	4:45 PM	34	77	19	22	92	18	18	222	40	19	178	11	750
	5:00 PM	26	74	20	27	141	45	17	194	40	20	199	14	817
	5:15 PM	25	67	9	31	103	28	16	171	33	12	177	8	680
	5:30 PM	29	64	27	24	106	37	12	191	36	19	250	9	804
	5:45 PM	28	53	14	15	89	26	13	180	32	11	152	7	620
	VOLUMES	225	553	135	180	869	309	138	1,560	278	146	1,548	82	6,023
	APPROACH %	25%	61%	15%	13%	64%	23%	7%	79%	14%	8%	87%	5%	
	APP/DEPART	913	/	775	1,358	/	1,292	1,976	/	1,878	1,776	/	2,078	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	122	312	75	95	465	161	75	807	152	81	763	44	3,158
	APPROACH %	24%	61%	15%	13%	64%	22%	7%	78%	15%	9%	85%	5%	
	PEAK HR FACTOR	0.850			0.794			0.923			0.942			0.893
	APP/DEPART	510	/	431	721	/	699	1,034	/	982	893	/	1,046	0

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0	0	0	0	0
0	0	0	1	1
1	0	0	3	4

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0	0	0	3	3
0	0	0	0	0
0	0	0	1	1
1	0	0	1	2
1	2	0	0	3
1	0	0	0	1
0	0	0	0	0
4	2	0	5	11





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 9 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

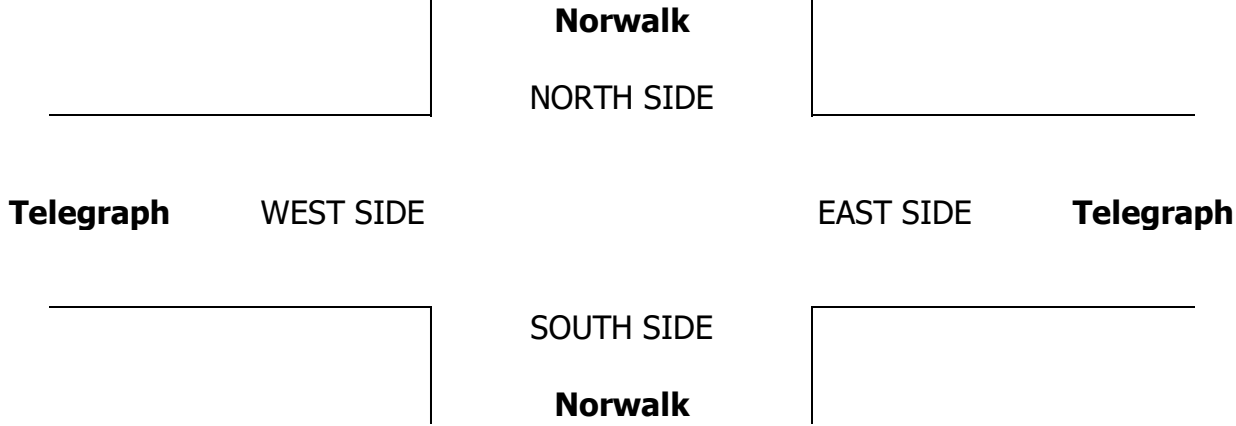
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	5	7	0	3	7	2	5	14	1	1	30	4	79
	7:15 AM	5	7	1	3	11	8	4	9	3	2	29	3	85
	7:30 AM	2	8	2	2	13	8	2	13	4	0	8	0	62
	7:45 AM	1	11	2	4	13	6	3	16	0	0	16	0	72
	8:00 AM	7	11	1	0	12	4	3	16	2	1	21	2	80
	8:15 AM	2	10	2	0	11	9	4	11	7	0	25	4	85
	8:30 AM	5	10	0	4	11	12	10	10	3	1	28	0	94
	8:45 AM	3	9	3	1	13	4	10	10	3	0	23	1	80
	VOLUMES	30	73	11	17	91	53	41	99	23	5	180	14	637
	APPROACH %	26%	64%	10%	11%	57%	33%	25%	61%	14%	3%	90%	7%	
	APP/DEPART	114	/	128	161	/	119	163	/	127	199	/	263	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	12	40	7	6	49	27	12	56	13	1	70	6	299
	APPROACH %	20%	68%	12%	7%	60%	33%	15%	69%	16%	1%	91%	8%	
	PEAK HR FACTOR	0.776			0.891			0.920			0.664			0.879
	APP/DEPART	59	/	58	82	/	63	81	/	69	77	/	109	0
PM	04:00 PM	2	7	2	4	8	8	4	17	5	1	9	1	68
	4:15 PM	2	13	4	1	13	3	3	13	1	0	13	1	67
	4:30 PM	1	11	1	0	6	6	3	18	7	0	9	0	62
	4:45 PM	2	5	1	2	3	1	2	20	3	2	11	0	52
	5:00 PM	2	6	3	0	3	2	0	9	2	0	9	0	36
	5:15 PM	0	8	1	0	5	1	2	10	0	2	9	1	39
	5:30 PM	1	4	0	0	6	2	2	9	1	0	6	0	31
	5:45 PM	1	7	1	0	2	0	0	11	3	1	3	0	29
	VOLUMES	11	61	13	7	46	23	16	107	22	6	69	3	384
	APPROACH %	13%	72%	15%	9%	61%	30%	11%	74%	15%	8%	88%	4%	
	APP/DEPART	85	/	80	76	/	74	145	/	127	78	/	103	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	7	35	9	3	25	12	8	60	13	2	42	1	217
	APPROACH %	14%	69%	18%	8%	63%	30%	10%	74%	16%	4%	93%	2%	
	PEAK HR FACTOR	0.671			0.588			0.723			0.804			0.810
	APP/DEPART	51	/	44	40	/	40	81	/	72	45	/	61	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
9  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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◀ W  
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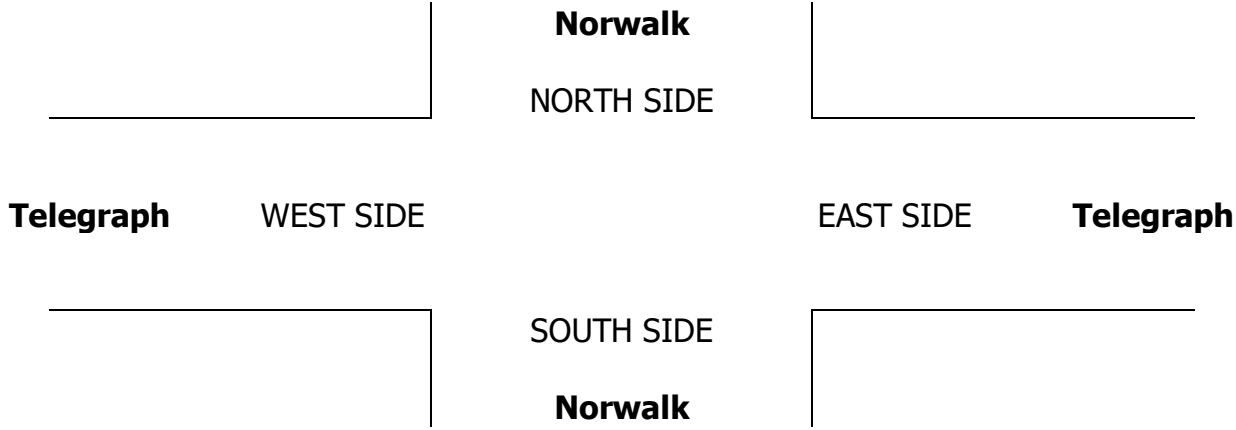
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

AM	7:00 AM	0	1	0	0	2	2	3	0	0	1	2	0	11
	7:15 AM	0	4	0	0	0	0	0	3	0	0	1	0	8
	7:30 AM	2	4	0	0	2	1	1	0	0	0	1	0	11
	7:45 AM	0	2	0	0	3	0	1	1	0	0	4	0	11
	8:00 AM	1	2	0	1	2	1	1	2	0	1	1	0	12
	8:15 AM	1	3	0	1	3	0	0	3	2	0	3	0	16
	8:30 AM	0	0	0	0	2	2	0	1	0	0	0	0	5
	8:45 AM	0	4	1	0	4	2	0	1	0	0	1	0	13
	VOLUMES	4	20	1	2	18	8	6	11	2	2	13	0	87
	APPROACH %	16%	80%	4%	7%	64%	29%	32%	58%	11%	13%	87%	0%	
	APP/DEPART	25	/	26	28	/	22	19	/	14	15	/	25	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	4	11	0	2	10	2	3	6	2	1	9	0	50
	APPROACH %	27%	73%	0%	14%	71%	14%	27%	55%	18%	10%	90%	0%	
	PEAK HR FACTOR	0.625			0.875			0.550			0.625			0.781
	APP/DEPART	15	/	14	14	/	13	11	/	8	10	/	15	0
	04:00 PM	0	1	0	0	4	0	0	0	0	0	1	0	6
	4:15 PM	0	3	0	0	1	1	0	2	1	1	1	0	10
	4:30 PM	0	2	0	0	3	1	2	0	0	1	2	0	11
PM	4:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	4
	5:00 PM	0	4	0	0	1	0	1	0	1	0	0	0	7
	5:15 PM	0	1	0	0	3	0	0	0	0	0	0	1	5
	5:30 PM	0	1	0	0	0	0	0	0	1	0	1	0	3
	5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
	VOLUMES	1	12	0	1	12	5	3	3	3	2	5	1	48
	APPROACH %	8%	92%	0%	6%	67%	28%	33%	33%	33%	25%	63%	13%	
	APP/DEPART	13	/	16	18	/	17	9	/	4	8	/	11	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	1	9	0	1	5	3	3	3	2	2	3	0	32
	APPROACH %	10%	90%	0%	11%	56%	33%	38%	38%	25%	40%	60%	0%	
	PEAK HR FACTOR	0.625			0.563			0.667			0.417			0.727
	APP/DEPART	10	/	12	9	/	9	8	/	4	5	/	7	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
9  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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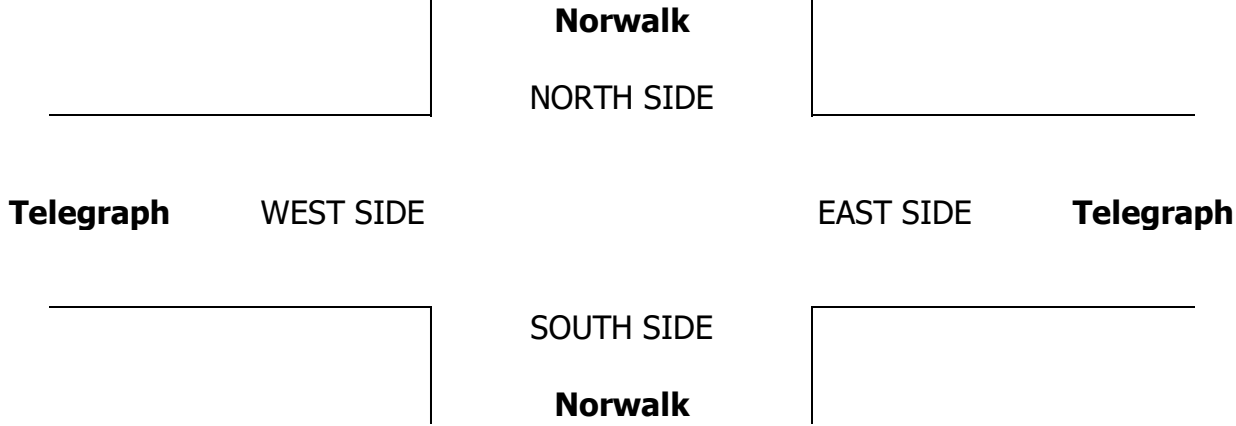
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	3	5	0	0	5	2	5	6	1	1	8	1	37
	7:15 AM	4	1	0	0	8	2	2	4	0	0	6	0	27
	7:30 AM	4	10	1	2	6	5	3	2	1	1	5	2	42
	7:45 AM	5	4	1	0	11	4	4	3	0	0	5	1	38
	8:00 AM	3	7	0	0	12	5	1	3	4	0	3	1	39
	8:15 AM	3	7	0	1	4	3	4	2	3	1	3	1	32
	8:30 AM	4	8	0	0	9	0	5	2	2	0	2	1	33
	8:45 AM	4	10	1	0	3	2	0	8	2	0	6	0	36
	VOLUMES	30	52	3	3	58	23	24	30	13	3	38	7	284
	APPROACH %	35%	61%	4%	4%	69%	27%	36%	45%	19%	6%	79%	15%	
	APP/DEPART	85	/	83	84	/	74	67	/	36	48	/	91	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	15	28	2	3	33	17	12	10	8	2	16	5	151
	APPROACH %	33%	62%	4%	6%	62%	32%	40%	33%	27%	9%	70%	22%	
PM	PEAK HR FACTOR	0.750			0.779			0.833			0.719			0.899
	APP/DEPART	45	/	45	53	/	43	30	/	15	23	/	48	0
	4:00 PM	0	5	1	1	15	2	4	5	1	0	2	1	37
	4:15 PM	0	10	0	1	9	3	3	5	0	1	3	1	36
	4:30 PM	1	8	0	1	8	2	0	4	0	0	4	0	28
	4:45 PM	1	6	0	1	4	0	1	1	1	0	5	2	22
	5:00 PM	0	3	0	3	7	0	0	0	1	0	6	0	20
	5:15 PM	0	7	1	1	4	6	0	3	1	0	3	0	26
	5:30 PM	1	3	0	0	6	2	1	3	2	0	3	1	22
	5:45 PM	0	6	0	2	9	3	2	4	3	0	0	1	30
	VOLUMES	3	48	2	10	62	18	11	25	9	1	26	6	221
	APPROACH %	6%	91%	4%	11%	69%	20%	24%	56%	20%	3%	79%	18%	
	APP/DEPART	53	/	65	90	/	72	45	/	37	33	/	47	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	2	27	0	6	28	5	4	10	2	1	18	3	106
	APPROACH %	7%	93%	0%	15%	72%	13%	25%	63%	13%	5%	82%	14%	
	PEAK HR FACTOR	0.725			0.750			0.500			0.786			0.736
	APP/DEPART	29	/	34	39	/	31	16	/	16	22	/	25	0

0	0	0	0	0
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0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
9  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0
	BEGIN PEAK HR	7:30 AM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
9  
SIGNAL

CLASS 6:

NOTES:

AM  
PM  
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OTHER

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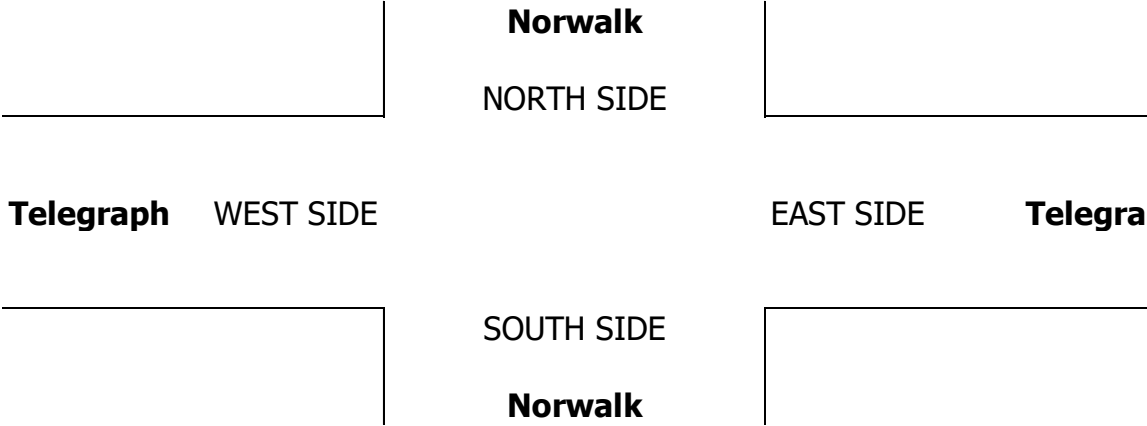
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	1	0	0	0	0	0	1	0	2	0	4
	7:15 AM	1	0	0	0	0	0	0	1	1	0	0	0	3
	7:30 AM	0	0	0	0	0	0	0	1	0	1	1	0	3
	7:45 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
	8:00 AM	0	0	1	0	0	1	0	0	1	0	1	0	4
	8:15 AM	1	0	0	0	0	0	0	0	0	1	1	0	3
	8:30 AM	0	0	0	0	1	0	0	2	1	0	0	0	4
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	VOLUMES	2	0	3	0	1	1	0	6	4	2	7	0	26
	APPROACH %	40%	0%	60%	0%	50%	50%	0%	60%	40%	22%	78%	0%	
APP/DEPART	5	/	0	2	/	7	10	/	9	9	/	10	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	1	0	2	0	0	1	0	2	1	2	4	0	13	
APPROACH %	33%	0%	67%	0%	0%	100%	0%	67%	33%	33%	67%	0%		
PEAK HR FACTOR	0.750			0.250			0.750			0.750			0.813	
APP/DEPART	3	/	0	1	/	3	3	/	4	6	/	6	0	
PM	04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	4:15 PM	1	0	1	0	0	0	0	0	0	1	0	0	3
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	4:45 PM	1	0	0	0	0	0	0	1	0	0	0	0	2
	5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	1	0	1	0	0	0	0	0	0	0	1	0	3
	5:30 PM	0	0	0	0	0	0	0	1	1	1	0	0	3
	5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	5	0	2	0	0	0	0	2	2	2	2	0	15
	APPROACH %	71%	0%	29%	0%	0%	0%	0%	50%	50%	50%	50%	0%	
	APP/DEPART	7	/	0	0	/	4	4	/	4	4	/	7	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	3	0	1	0	0	0	0	1	1	1	0	0	7
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	50%	50%	100%	0%	0%	
	PEAK HR FACTOR	0.500			0.000			0.500			0.250			0.583
APP/DEPART	4	/	0	0	/	2	2	/	2	1	/	3	0	

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0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Santa Fe Springs  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
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SIGNAL

NOTES:

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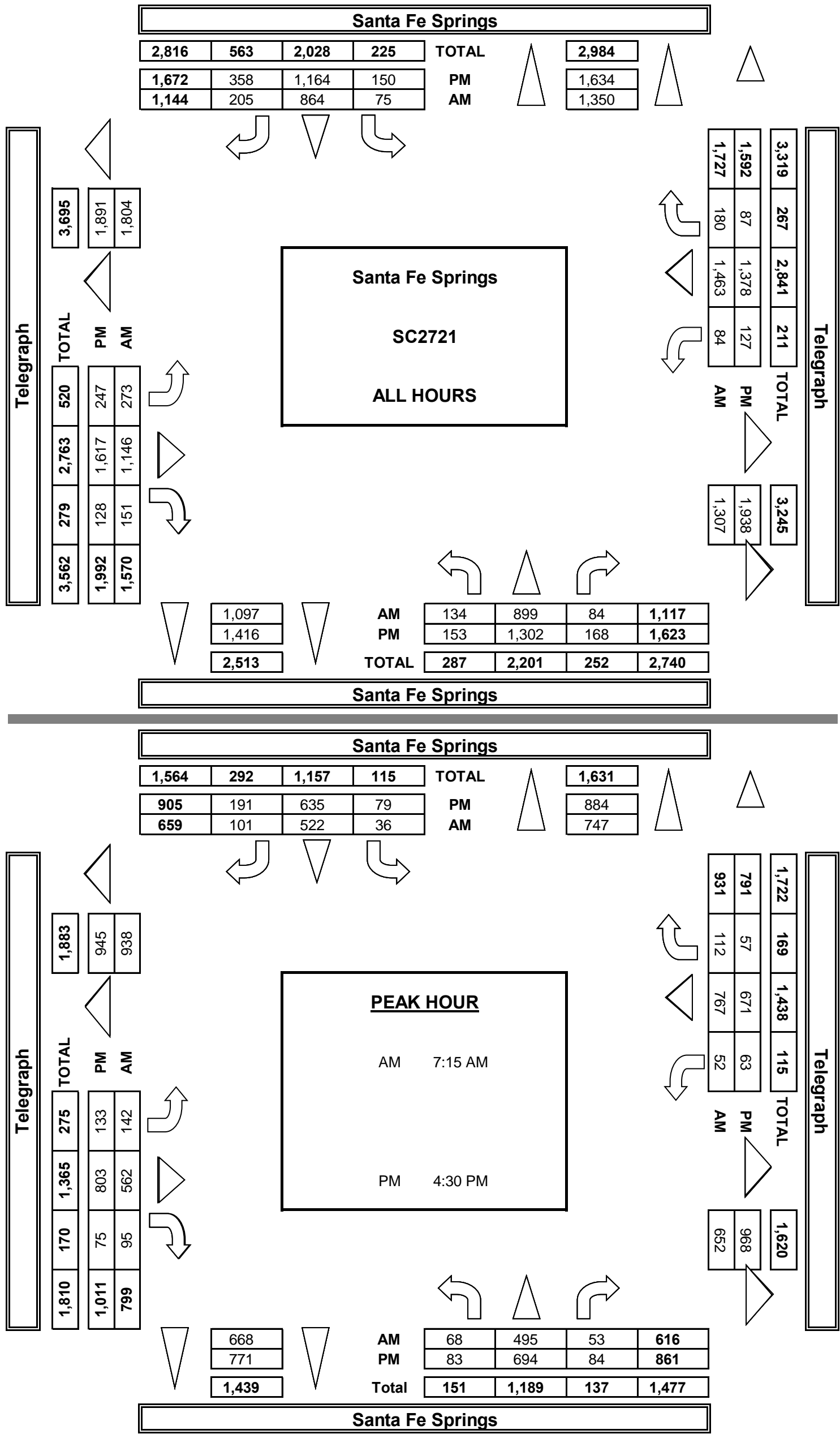
☒ Add U-Turns to Left Turns

														U-TURNS				
														NB	SB	EB	WB	TTL
														0	0	0	0	
AM	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL				
	7:00 AM	9	79	4	4	122	32	27	184	13	13	212	19	718	0	0	0	1
	7:15 AM	15	101	8	6	126	27	27	119	25	13	208	24	699	0	0	0	1
	7:30 AM	26	95	12	8	122	19	40	152	26	12	180	21	713	0	0	1	0
	7:45 AM	11	150	17	12	144	30	47	166	27	18	193	45	860	0	0	0	0
	8:00 AM	16	149	16	10	130	25	28	125	17	9	186	22	733	0	0	1	0
	8:15 AM	23	114	8	10	99	30	35	149	12	12	184	17	693	0	0	0	0
	8:30 AM	17	86	10	10	82	23	38	118	16	5	140	14	559	0	0	0	0
	8:45 AM	17	125	9	15	39	19	31	133	15	2	160	18	583	0	0	0	0
	VOLUMES	134	899	84	75	864	205	273	1,146	151	84	1,463	180	5,558	0	0	2	2
	APPROACH %	12%	80%	8%	7%	76%	18%	17%	73%	10%	5%	85%	10%					
	APP/DEPART	1,117	/	1,350	1,144	/	1,097	1,570	/	1,307	1,727	/	1,804	0				
	BEGIN PEAK HR VOLUMES	68	7:15 AM 495	53	36	522	101	142	562	95	52	767	112	3,005				
	APPROACH %	11%	80%	9%	5%	79%	15%	18%	70%	12%	6%	82%	12%					
	PEAK HR FACTOR		0.851			0.886			0.832			0.909		0.874				
PM	APP/DEPART	616	/	747	659	/	668	799	/	652	931	/	938	0				
	04:00 PM	18	151	38	23	135	46	29	241	11	19	199	10	920	0	0	0	0
	4:15 PM	17	173	17	23	128	33	32	191	8	16	178	8	824	0	0	2	0
	4:30 PM	29	172	37	26	165	53	28	229	21	12	178	15	965	0	0	0	0
	4:45 PM	16	183	17	18	142	40	38	200	16	15	145	14	844	0	0	0	0
	5:00 PM	20	146	20	25	197	44	37	210	15	17	186	13	930	0	0	0	1
	5:15 PM	18	193	10	10	131	54	30	164	23	19	162	15	829	0	0	0	1
	5:30 PM	15	156	21	14	123	59	33	217	19	17	199	8	881	0	0	0	1
	5:45 PM	20	128	8	11	143	29	20	165	15	12	131	4	686	0	0	0	0
	VOLUMES	153	1,302	168	150	1,164	358	247	1,617	128	127	1,378	87	6,879	0	0	2	3
	APPROACH %	9%	80%	10%	9%	70%	21%	12%	81%	6%	8%	87%	5%					
	APP/DEPART	1,623	/	1,634	1,672	/	1,416	1,992	/	1,938	1,592	/	1,891	0				
	BEGIN PEAK HR VOLUMES	83	4:30 PM 694	84	79	635	191	133	803	75	63	671	57	3,568				
	APPROACH %	10%	81%	10%	9%	70%	21%	13%	79%	7%	8%	85%	7%					
	PEAK HR FACTOR		0.904			0.851			0.909			0.916		0.924				
	APP/DEPART	861	/	884	905	/	771	1,011	/	968	791	/	945	0				



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	0	0	0	4	4	0	0	0	2	2	0	0	0	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
		0	1	0	1	0	0	0	0	0	0	0	1	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	2	5	9	1	1	0	2	4	0	0	2	3	5
	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	2	0	2	1	5	1	0	2	0	3	1	0	0	1	2
	3	0	0	3	6	3	0	0	0	3	0	0	0	3	3
	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1
	1	2	0	0	3	1	2	0	0	3	0	0	0	0	0
	0	2	0	1	3	0	1	0	1	2	0	1	0	0	1
TOTAL						TOTAL					TOTAL				
						7	9	2	5	23	1	5	0	4	10

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 10 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
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									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Santa Fe Springs			Santa Fe Springs			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL					

AM	7:00 AM	13	85	4	7	139	41	30	196	16	17	235	19	798					0
	7:15 AM	19	108	8	9	135	35	29	132	28	15	232	26	775					0
	7:30 AM	32	100	14	8	135	24	45	166	28	14	195	24	782					0
	7:45 AM	15	161	20	16	162	33	51	180	28	18	207	49	937					0
	8:00 AM	17	157	19	11	140	28	31	138	17	10	204	25	795					0
	8:15 AM	33	127	8	14	121	37	39	159	13	13	201	19	781					0
	8:30 AM	22	93	11	14	91	25	41	131	18	6	152	17	617					0
	8:45 AM	20	146	10	17	49	27	41	143	19	3	174	21	668					0
	VOLUMES	170	974	93	94	970	248	306	1,243	166	93	1,599	198	6,151	0	0	0	0	0
	APPROACH %	14%	79%	7%	7%	74%	19%	18%	73%	10%	5%	85%	10%						
	APP/DEPART	1,236	/	1,477	1,312	/	1,229	1,714	/	1,429	1,890	/	2,016	0					
PM	BEGIN PEAK HR	7:15 AM																	
	VOLUMES	83	525	60	44	571	119	155	615	101	56	838	123	3,288					
	APPROACH %	12%	79%	9%	6%	78%	16%	18%	71%	12%	6%	82%	12%						
	PEAK HR FACTOR	0.856			0.873			0.841			0.930			0.878					
	APP/DEPART	668	/	803	734	/	728	870	/	718	1,016	/	1,040	0					
	04:00 PM	20	162	39	23	143	48	34	257	16	21	212	13	985					0
	4:15 PM	18	181	18	26	142	35	38	209	10	19	195	12	899					0
	4:30 PM	30	184	38	27	172	56	30	241	25	14	193	16	1,023					0
	4:45 PM	21	195	18	20	156	43	42	209	21	16	154	17	908					0
	5:00 PM	20	153	23	26	211	45	38	217	17	18	201	14	980					0
	5:15 PM	23	202	11	12	139	55	33	173	28	21	170	16	881					0
5:30 PM	20	166	22	14	127	59	35	223	20	17	209	9	919					0	
5:45 PM	20	132	8	13	159	29	22	184	20	12	133	5	735					0	
VOLUMES	170	1,373	175	160	1,248	368	270	1,712	155	136	1,465	99	7,329	0	0	0	0	0	
APPROACH %	10%	80%	10%	9%	70%	21%	13%	80%	7%	8%	86%	6%							
APP/DEPART	1,717	/	1,741	1,776	/	1,539	2,137	/	2,046	1,700	/	2,003	0						
BEGIN PEAK HR	4:30 PM																		
VOLUMES	93	733	89	84	678	198	142	840	90	68	717	62	3,791						
APPROACH %	10%	80%	10%	9%	71%	21%	13%	78%	8%	8%	85%	7%							
PEAK HR FACTOR	0.913			0.853			0.906			0.914			0.927						
APP/DEPART	915	/	936	959	/	836	1,071	/	1,012	847	/	1,008	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 10 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

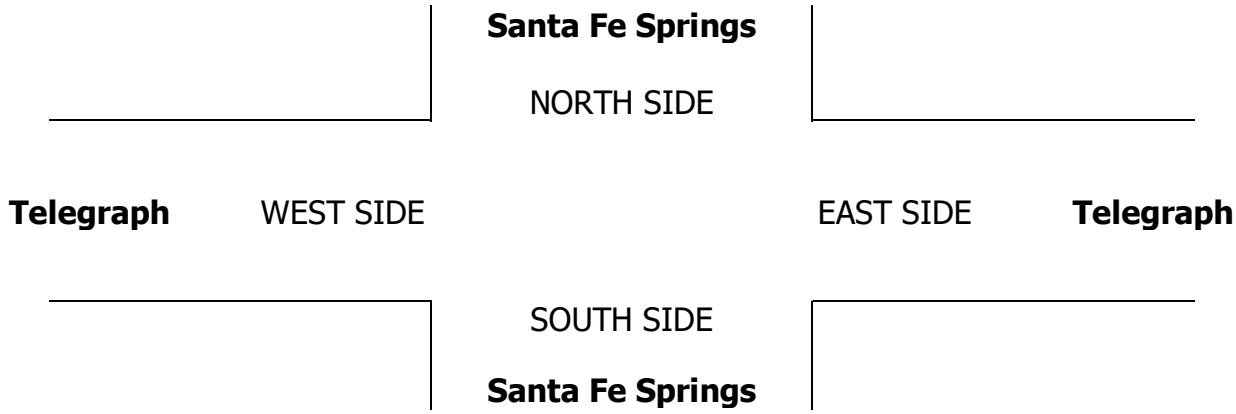
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Santa Fe Springs			Santa Fe Springs			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	5	72	4	2	102	24	25	171	11	8	185	19	628
	7:15 AM	10	94	8	3	114	18	26	102	22	11	176	21	605
	7:30 AM	20	89	9	8	109	16	37	137	24	9	168	19	645
	7:45 AM	7	137	15	8	126	25	42	150	25	18	179	42	774
	8:00 AM	14	143	11	8	118	22	26	109	17	7	162	20	657
	8:15 AM	14	100	8	6	80	24	29	137	11	11	157	16	593
	8:30 AM	14	79	9	7	71	20	35	101	15	4	119	12	486
	8:45 AM	12	108	7	12	30	12	24	122	13	1	141	16	498
	VOLUMES	96	822	71	54	750	161	244	1,029	138	69	1,287	165	4,886
	APPROACH %	10%	83%	7%	6%	78%	17%	17%	73%	10%	5%	85%	11%	
	APP/DEPART	989	/	1,229	965	/	955	1,411	/	1,156	1,521	/	1,546	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	51	463	43	27	467	81	129	498	88	44	685	102	2,681
	APPROACH %	9%	83%	8%	5%	81%	14%	18%	69%	12%	5%	82%	12%	
	PEAK HR FACTOR	0.829			0.904			0.826			0.870			0.866
	APP/DEPART	557	/	694	575	/	599	717	/	569	832	/	819	0
PM	04:00 PM	16	136	36	23	123	42	25	220	8	17	186	8	840
	4:15 PM	16	159	16	20	115	31	26	172	6	14	162	5	742
	4:30 PM	28	159	36	25	155	48	25	215	16	11	163	14	895
	4:45 PM	13	165	16	17	128	38	31	189	11	14	136	11	769
	5:00 PM	20	138	18	24	184	43	35	203	12	16	173	12	878
	5:15 PM	14	178	8	9	120	53	28	153	20	18	153	14	768
	5:30 PM	12	148	20	14	119	59	30	212	17	17	190	7	845
	5:45 PM	20	125	8	10	130	29	19	149	11	12	128	3	644
	VOLUMES	139	1,208	158	142	1,074	343	219	1,513	101	119	1,291	74	6,381
	APPROACH %	9%	80%	10%	9%	69%	22%	12%	83%	6%	8%	87%	5%	
	APP/DEPART	1,505	/	1,499	1,559	/	1,291	1,833	/	1,816	1,484	/	1,775	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	75	640	78	75	587	182	119	760	59	57	625	51	3,310
	APPROACH %	9%	81%	10%	9%	70%	22%	13%	81%	6%	8%	85%	7%	
	PEAK HR FACTOR	0.889			0.841			0.916			0.914			0.925
	APP/DEPART	793	/	810	844	/	703	938	/	915	735	/	882	0

0	0	0	1	1
0	0	0	1	1
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	2	0	2
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0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	2	3	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 10 SIGNAL
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CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	<div>▲ N ◀ W S ▼</div>	E ▶
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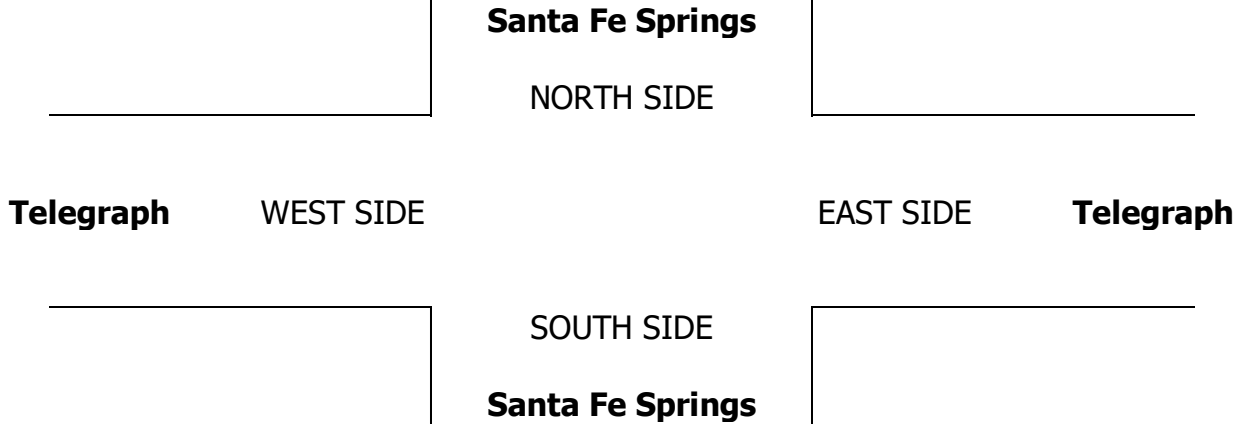
	NORTHBOUND Santa Fe Springs			SOUTHBOUND Santa Fe Springs			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	3	5	0	0	14	5	1	9	1	3	17	0	58
	7:15 AM	4	4	0	2	10	7	0	13	2	1	24	2	69
	7:30 AM	4	4	2	0	8	1	1	9	1	3	6	1	40
	7:45 AM	2	9	1	3	11	4	4	11	2	0	9	1	57
	8:00 AM	2	3	5	2	9	2	1	10	0	2	18	1	55
	8:15 AM	5	9	0	3	10	3	4	9	1	1	22	0	67
	8:30 AM	1	5	1	1	9	3	2	12	0	1	20	1	56
	8:45 AM	4	7	2	3	5	4	2	8	0	1	16	1	53
	VOLUMES	25	46	11	14	76	29	15	81	7	12	132	7	455
	APPROACH %	30%	56%	13%	12%	64%	24%	15%	79%	7%	8%	87%	5%	
	APP/DEPART	82	/	68	119	/	95	103	/	106	151	/	186	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	12	20	8	7	38	14	6	43	5	6	57	5	221
	APPROACH %	30%	50%	20%	12%	64%	24%	11%	80%	9%	9%	84%	7%	
	PEAK HR FACTOR	0.833			0.776			0.794			0.630			0.801
	APP/DEPART	40	/	31	59	/	49	54	/	58	68	/	83	0
PM	04:00 PM	1	11	2	0	11	4	2	17	1	1	8	1	59
	4:15 PM	1	13	1	2	7	1	4	12	1	1	8	1	52
	4:30 PM	1	9	1	1	8	4	3	10	4	0	9	1	51
	4:45 PM	1	15	1	0	9	1	7	8	3	1	6	2	54
	5:00 PM	0	6	1	1	8	1	2	5	2	1	7	1	35
	5:15 PM	2	14	2	0	8	1	1	8	1	0	6	1	44
	5:30 PM	0	4	1	0	2	0	3	2	2	0	5	1	20
	5:45 PM	0	1	0	0	6	0	0	9	2	0	3	1	22
	VOLUMES	6	73	9	4	59	12	22	71	16	4	52	9	337
	APPROACH %	7%	83%	10%	5%	79%	16%	20%	65%	15%	6%	80%	14%	
	APP/DEPART	88	/	104	75	/	79	109	/	84	65	/	70	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	4	44	5	2	33	7	13	31	10	2	28	5	184
	APPROACH %	8%	83%	9%	5%	79%	17%	24%	57%	19%	6%	80%	14%	
	PEAK HR FACTOR	0.736			0.808			0.750			0.875			0.852
	APP/DEPART	53	/	62	42	/	45	54	/	38	35	/	39	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 10 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N S ▼</div><div>◀ W E ▶</div></div>

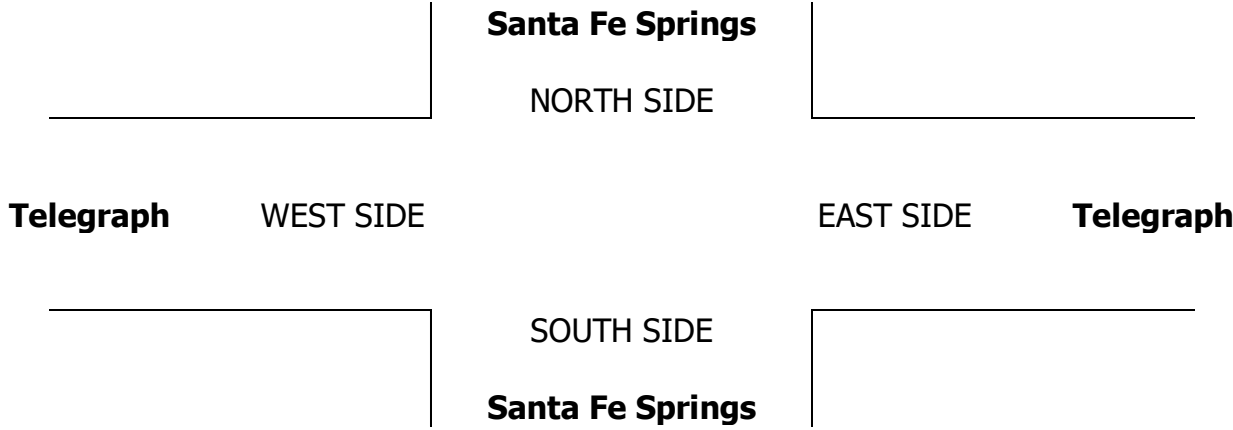
	NORTHBOUND Santa Fe Springs			SOUTHBOUND Santa Fe Springs			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL

AM	7:00 AM	0	0	0	1	2	0	0	0	0	2	4	0	9
	7:15 AM	0	1	0	0	0	0	0	2	0	0	2	1	6
	7:30 AM	0	1	1	0	1	0	0	1	1	0	0	0	5
	7:45 AM	1	1	0	0	0	1	0	1	0	0	0	1	5
	8:00 AM	0	0	0	0	1	0	0	2	0	0	2	0	5
	8:15 AM	1	2	0	0	1	1	2	1	0	0	2	0	10
	8:30 AM	0	0	0	1	0	0	0	1	0	0	0	0	2
	8:45 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	VOLUMES	2	7	1	2	6	2	2	8	1	2	10	2	45
	APPROACH %	20%	70%	10%	20%	60%	20%	18%	73%	9%	14%	71%	14%	
	APP/DEPART	10	/	11	10	/	9	11	/	11	14	/	14	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	1	3	1	0	2	1	0	6	1	0	4	2	21
	APPROACH %	20%	60%	20%	0%	67%	33%	0%	86%	14%	0%	67%	33%	
	PEAK HR FACTOR	0.625			0.750			0.875			0.500			0.875
	APP/DEPART	5	/	5	3	/	3	7	/	7	6	/	6	0
	04:00 PM	1	2	0	0	0	0	0	1	0	1	0	0	5
	4:15 PM	0	1	0	0	2	1	0	1	1	0	2	1	9
	4:30 PM	0	0	0	0	1	1	0	1	0	0	2	0	5
	4:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	4	0	0	6	2	0	3	3	1	5	1	27
	APPROACH %	33%	67%	0%	0%	75%	25%	0%	50%	50%	14%	71%	14%	
	APP/DEPART	6	/	5	8	/	10	6	/	3	7	/	9	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	1	0	0	3	1	0	1	2	0	2	0	10
	APPROACH %	0%	100%	0%	0%	75%	25%	0%	33%	67%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.500			0.750			0.250			0.500
	APP/DEPART	1	/	1	4	/	5	3	/	1	2	/	3	0

U-TURNS				
NB	SB	EB	WB	TTL

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Santa Fe Springs Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 10 SIGNAL
CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

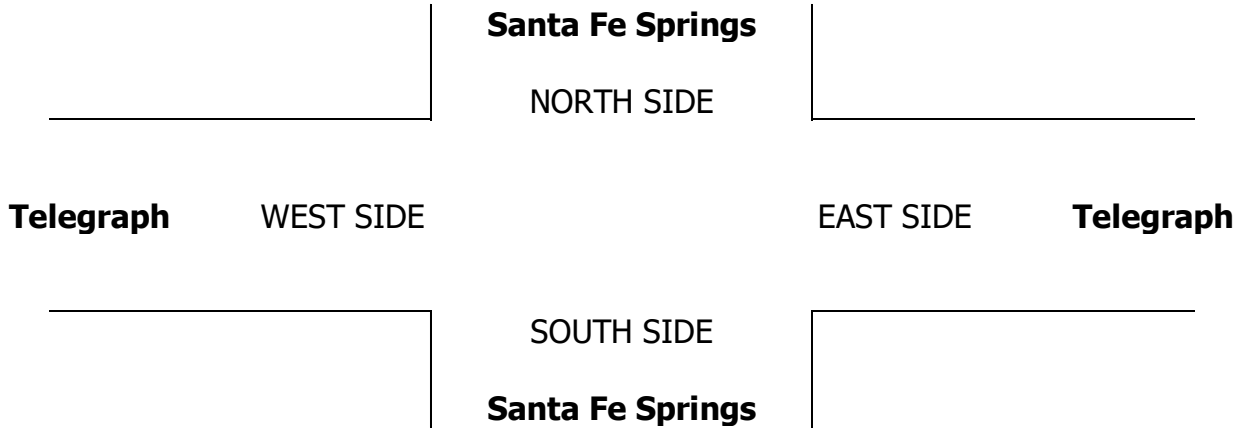
	NORTHBOUND Santa Fe Springs			SOUTHBOUND Santa Fe Springs			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	1	0	1	4	3	1	3	1	0	4	0	19
	7:15 AM	1	2	0	1	2	2	1	2	1	0	4	0	16
	7:30 AM	2	1	0	0	4	2	2	3	0	0	6	1	21
	7:45 AM	1	2	1	1	5	0	1	3	0	0	4	1	19
	8:00 AM	0	3	0	0	2	1	1	2	0	0	3	1	13
	8:15 AM	3	3	0	1	8	2	0	2	0	0	1	1	21
	8:30 AM	2	2	0	1	2	0	1	2	1	0	1	1	13
	8:45 AM	0	7	0	0	3	3	4	3	2	0	3	1	26
	VOLUMES	10	21	1	5	30	13	11	20	5	0	26	6	148
	APPROACH %	31%	66%	3%	10%	63%	27%	31%	56%	14%	0%	81%	19%	
	APP/DEPART	32	/	38	48	/	35	36	/	26	32	/	49	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	4	8	1	2	13	5	5	10	1	0	17	3	69
	APPROACH %	31%	62%	8%	10%	65%	25%	31%	63%	6%	0%	85%	15%	
	PEAK HR FACTOR	0.813			0.833			0.800			0.714			0.821
	APP/DEPART	13	/	16	20	/	14	16	/	13	20	/	26	0
PM	04:00 PM	0	1	0	0	1	0	2	3	2	0	4	1	14
	4:15 PM	0	0	0	1	4	0	2	5	0	1	5	1	19
	4:30 PM	0	3	0	0	1	0	0	3	1	1	4	0	13
	4:45 PM	2	1	0	1	4	1	0	2	1	0	3	1	16
	5:00 PM	0	2	1	0	5	0	0	2	0	0	5	0	15
	5:15 PM	2	1	0	1	1	0	1	2	2	1	2	0	13
	5:30 PM	2	4	0	0	1	0	0	2	0	0	3	0	12
	5:45 PM	0	1	0	1	6	0	1	7	2	0	0	0	18
	VOLUMES	6	13	1	4	23	1	6	26	8	3	26	3	120
	APPROACH %	30%	65%	5%	14%	82%	4%	15%	65%	20%	9%	81%	9%	
	APP/DEPART	20	/	22	28	/	34	40	/	31	32	/	33	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	4	7	1	2	11	1	1	9	4	2	14	1	57
	APPROACH %	33%	58%	8%	14%	79%	7%	7%	64%	29%	12%	82%	6%	
	PEAK HR FACTOR	1.000			0.583			0.700			0.850			0.891
	APP/DEPART	12	/	9	14	/	17	14	/	12	17	/	19	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Santa Fe Springs  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
10  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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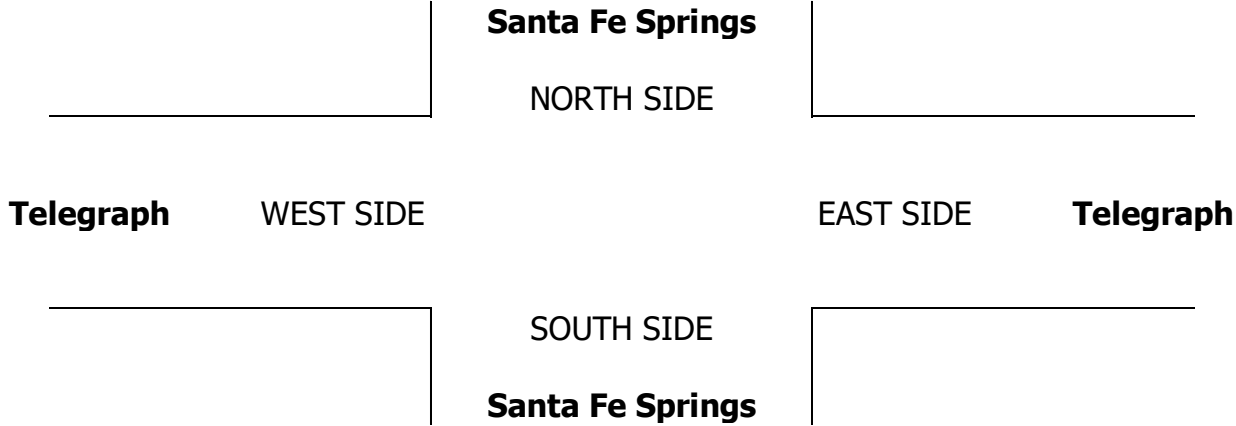
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Santa Fe Springs			Santa Fe Springs			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<div>DATE: 4/20/21 TUESDAY</div>	<div>LOCATION: NORTH &amp; SOUTH: EAST &amp; WEST:</div>	<div>Santa Fe Springs Santa Fe Springs Telegraph</div>	<div>PROJECT #: LOCATION #: CONTROL:</div>	<div>SC2721 10 SIGNAL</div>		
<div>CLASS 6:</div>	<div>NOTES:</div>		<div>AM</div>	<div></div>	<div>▲</div>	<div></div>
<div>BUSES</div>			<div>PM</div>		<div>N</div>	
			<div>MD</div>	<div>◀ W</div>		<div>E ▶</div>
			<div>OTHER</div>	<div></div>	<div>S</div>	<div></div>
			<div>OTHER</div>	<div></div>	<div>▼</div>	<div></div>

	NORTHBOUND Santa Fe Springs			SOUTHBOUND Santa Fe Springs			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 1	WT 3	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	0	0	0	1	0	0	2	0	4
	7:15 AM	0	0	0	0	0	0	0	0	1	2	0	3
	7:30 AM	0	0	0	0	0	0	2	0	0	0	0	2
	7:45 AM	0	1	0	0	2	0	1	0	0	1	0	5
	8:00 AM	0	0	0	0	0	0	2	0	0	1	0	3
	8:15 AM	0	0	0	0	0	0	0	0	0	2	0	2
	8:30 AM	0	0	0	0	0	0	2	0	0	0	0	2
	8:45 AM	1	1	0	0	0	0	0	0	0	0	0	3
	VOLUMES	1	3	0	0	2	0	8	0	1	8	0	24
	APPROACH %	25%	75%	0%	0%	100%	0%	89%	0%	11%	89%	0%	
	APP/DEPART	4	/	4	2	/	3	9	/	8	9	/	0
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	1	0	0	2	0	5	0	1	4	0	13
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	20%	80%	0%	
	PEAK HR FACTOR	0.250			0.250			0.625			0.417		
	APP/DEPART	1	/	1	2	/	3	5	/	5	5	/	0
	04:00 PM	0	1	0	0	0	0	0	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	1	0	0	1	0	1	0	0	0	0	3
	5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	1	0	0	1	0	2
	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	2
	VOLUMES	0	4	0	0	2	0	4	0	0	4	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	4	/	4	2	/	2	4	/	4	4	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	2	0	0	1	0	2	0	0	2	0	7
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.500			0.250			0.500			0.500		
	APP/DEPART	2	/	2	1	/	1	2	/	2	2	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
11  
SIGNAL

NOTES:

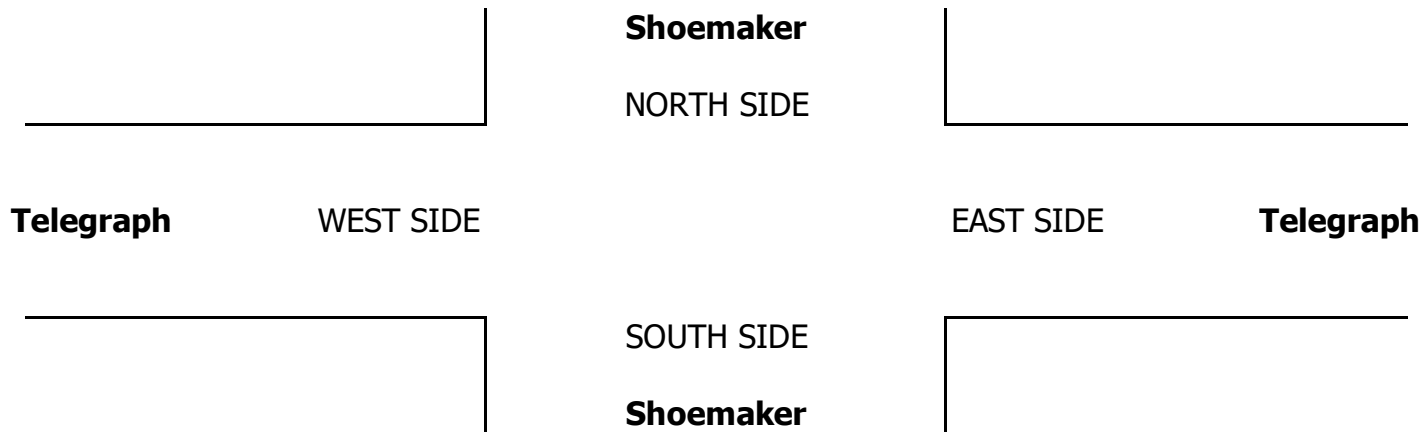
AM  
PM  
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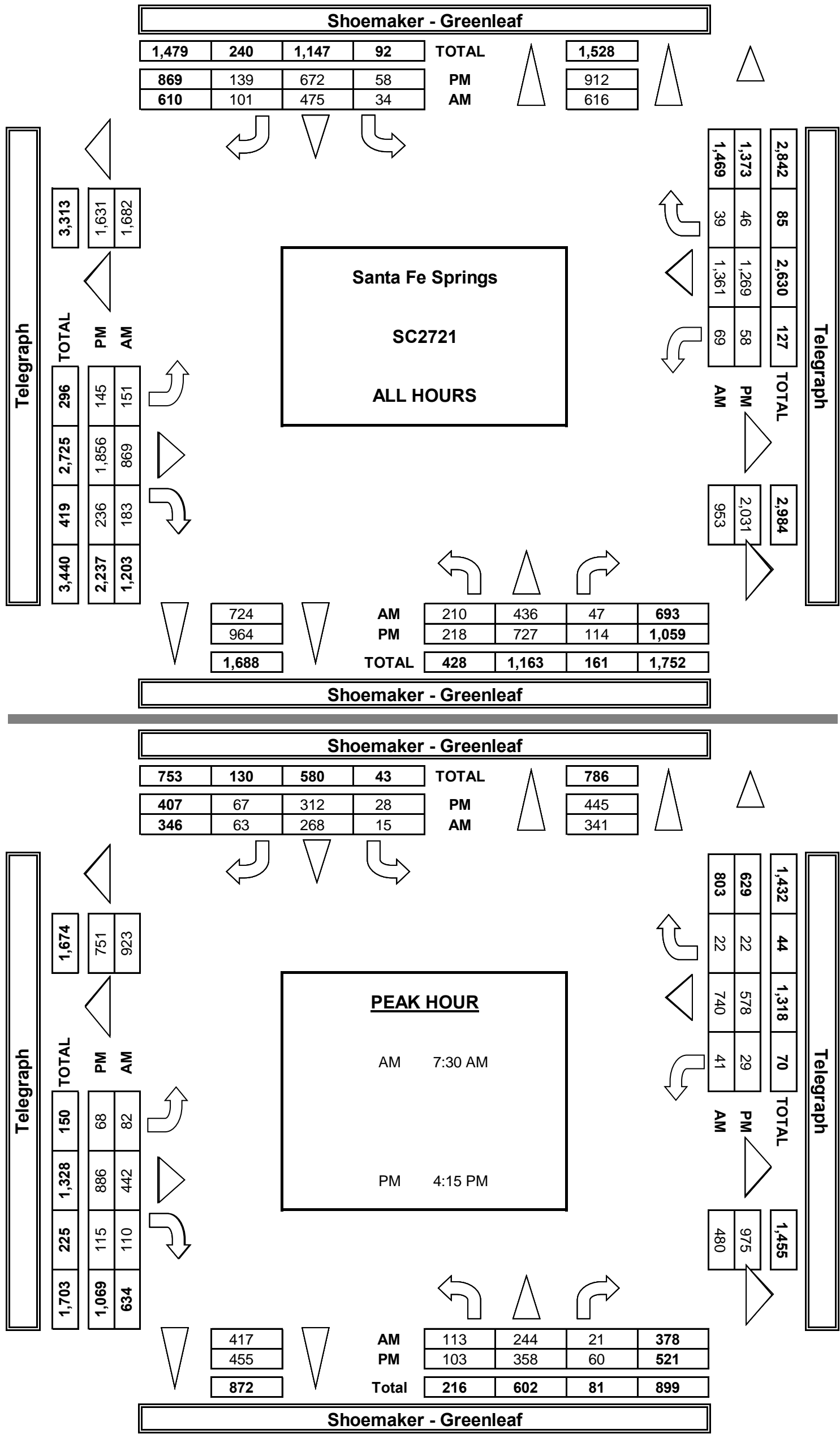
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Shoemaker - Greenleaf			Shoemaker - Greenleaf			Telegraph			Telegraph								
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	19	48	3	3	48	6	21	111	16	7	157	3	442	0	0	1	0	1
	7:15 AM	35	45	6	6	65	10	18	77	24	9	182	4	481	0	0	0	0	0
	7:30 AM	32	52	4	2	60	14	19	109	29	4	181	6	512	0	0	2	1	3
	7:45 AM	32	75	4	3	96	16	23	109	42	16	201	8	625	0	0	2	0	2
	8:00 AM	24	66	7	4	45	18	17	111	21	10	176	5	504	0	0	2	1	3
	8:15 AM	25	51	6	6	67	15	23	113	18	11	182	3	520	0	0	1	0	1
	8:30 AM	16	45	12	8	42	10	11	116	21	9	133	5	428	0	0	1	1	2
	8:45 AM	27	54	5	2	51	12	19	122	12	3	149	5	461	0	0	1	0	1
	VOLUMES	210	436	47	34	475	101	151	869	183	69	1,361	39	3,975	0	0	10	3	13
	APPROACH %	30%	63%	7%	6%	78%	17%	13%	72%	15%	5%	93%	3%						
APP/DEPART	693	/	616	610	/	724	1,203	/	953	1,469	/	1,682	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	113	244	21	15	268	63	82	442	110	41	740	22	2,161						
APPROACH %	30%	65%	6%	4%	77%	18%	13%	70%	17%	5%	92%	3%							
PEAK HR FACTOR	0.851			0.752			0.911			0.892			0.864						
APP/DEPART	378	/	341	346	/	417	634	/	480	803	/	923	0						
PM	04:00 PM	32	89	13	3	75	17	24	241	32	10	137	10	683	1	0	1	0	2
	4:15 PM	29	86	14	3	74	18	19	206	38	10	142	4	643	0	0	1	1	2
	4:30 PM	29	102	23	9	82	17	20	247	34	8	138	6	715	0	0	2	0	2
	4:45 PM	20	71	16	8	72	17	17	195	22	4	132	2	576	0	0	0	0	0
	5:00 PM	25	99	7	8	84	15	12	238	21	7	166	10	692	0	0	0	0	0
	5:15 PM	19	75	6	5	78	12	9	162	18	7	149	3	543	0	0	0	2	2
	5:30 PM	33	70	12	4	66	19	13	222	22	4	167	6	638	0	0	1	0	1
	5:45 PM	11	64	5	10	69	7	14	151	26	4	106	3	470	0	0	1	0	1
	VOLUMES	218	727	114	58	672	139	145	1,856	236	58	1,269	46	5,538	1	0	6	3	10
	APPROACH %	21%	69%	11%	7%	77%	16%	6%	83%	11%	4%	92%	3%						
APP/DEPART	1,059	/	912	869	/	964	2,237	/	2,031	1,373	/	1,631	0						
BEGIN PEAK HR	4:15 PM																		
VOLUMES	103	358	60	28	312	67	68	886	115	29	578	22	2,626						
APPROACH %	20%	69%	12%	7%	77%	16%	6%	83%	11%	5%	92%	3%							
PEAK HR FACTOR	0.846			0.942			0.888			0.859			0.918						
APP/DEPART	521	/	445	407	/	455	1,069	/	975	629	/	751	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	3	1	3	0	7	3	1	3	0	7	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	1	1	0	3	1	1	1	0	3	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		4	2	4	3	13	4	2	4	0	10	0	0	0	3	3
PM	4:00 PM	2	3	0	1	6	1	2	0	1	4	1	1	0	0	2
	4:15 PM	2	0	1	0	3	2	0	0	0	2	0	0	1	0	1
	4:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:00 PM	0	2	0	5	7	0	2	0	3	5	0	0	0	2	2
	5:15 PM	1	3	1	0	5	1	2	1	0	4	0	1	0	0	1
	5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	1	0	1	2	0	0	0	0	0	0	1	0	1	2	
TOTAL		6	10	3	7	26	5	6	1	4	16	1	4	2	3	10

AimTD LLC  
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Shoemaker Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 11 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Shoemaker			Shoemaker			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	26	60	4	4	59	9	23	118	23	8	167	4	503					0
	7:15 AM	45	59	7	7	80	14	25	79	33	10	197	4	558					0
	7:30 AM	37	61	4	2	69	17	20	120	34	5	191	6	564					0
	7:45 AM	38	88	4	4	118	18	23	120	48	17	211	11	698					0
	8:00 AM	32	76	8	4	53	21	22	121	25	10	189	5	564					0
	8:15 AM	30	61	6	8	76	16	24	120	22	12	196	3	572					0
	8:30 AM	21	52	15	9	55	12	14	126	27	10	143	6	489					0
	8:45 AM	32	69	6	2	57	14	20	130	13	4	159	5	508					0
	VOLUMES	260	524	53	40	566	120	170	933	223	74	1,451	43	4,455	0	0	0	0	0
	APPROACH %	31%	63%	6%	5%	78%	16%	13%	70%	17%	5%	93%	3%						
	APP/DEPART	837	/	737	725	/	863	1,326	/	1,026	1,568	/	1,831	0					
	BEGIN PEAK HR	7:30 AM																	
	VOLUMES	137	285	22	18	315	71	89	480	128	43	786	25	2,396					
	APPROACH %	31%	64%	5%	4%	78%	18%	13%	69%	18%	5%	92%	3%						
	PEAK HR FACTOR	0.854			0.728			0.911			0.895			0.859					
PM	APP/DEPART	443	/	399	404	/	486	696	/	519	854	/	994	0					
	04:00 PM	42	107	15	3	91	18	29	247	40	11	146	10	757					0
	4:15 PM	39	101	15	3	88	21	21	215	49	14	153	5	721					0
	4:30 PM	33	116	26	9	88	17	22	255	40	9	146	6	765					0
	4:45 PM	27	80	18	8	79	21	18	201	29	4	139	2	624					0
	5:00 PM	28	115	8	8	94	17	12	240	27	8	174	10	739					0
	5:15 PM	22	79	6	5	93	13	14	168	19	9	152	3	582					0
	5:30 PM	43	78	14	4	72	20	16	226	25	6	170	6	678					0
	5:45 PM	12	76	5	10	84	7	15	157	38	4	107	3	516					0
	VOLUMES	264	822	125	58	757	150	163	1,902	287	68	1,317	47	5,958	0	0	0	0	0
	APPROACH %	22%	68%	10%	6%	78%	16%	7%	81%	12%	5%	92%	3%						
	APP/DEPART	1,211	/	1,032	965	/	1,112	2,352	/	2,084	1,431	/	1,730	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	126	412	67	28	347	75	73	910	144	34	611	23	2,848					
	APPROACH %	21%	68%	11%	6%	77%	17%	6%	81%	13%	5%	92%	3%						
	PEAK HR FACTOR	0.865			0.949			0.891			0.871			0.931					
	APP/DEPART	604	/	507	450	/	525	1,126	/	1,005	668	/	812	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Shoemaker Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 11 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER		▲ N  S ▼	
PASSENGER VEHICLES			◀ W		E ▶

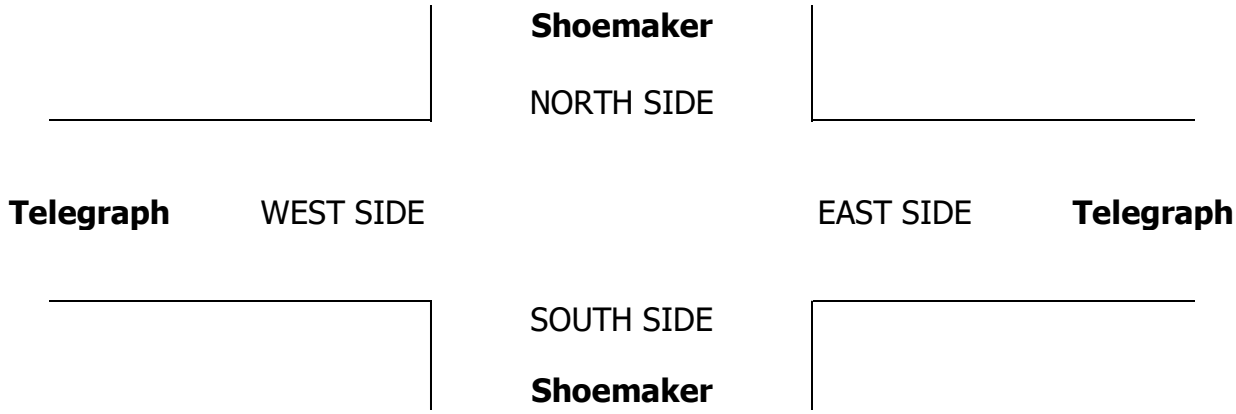
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	12	38	2	2	33	3	20	101	11	6	141	2	371
	7:15 AM	20	29	4	5	50	7	13	73	13	8	164	4	390
	7:30 AM	28	43	4	2	51	12	18	95	24	3	170	6	456
	7:45 AM	27	61	4	2	76	13	23	93	36	15	192	5	547
	8:00 AM	15	53	6	4	36	14	11	97	17	10	157	5	425
	8:15 AM	19	38	6	5	57	13	21	104	15	10	160	3	451
	8:30 AM	12	38	9	6	27	6	9	103	13	7	116	4	350
	8:45 AM	18	41	4	2	42	8	18	112	10	2	139	5	401
	VOLUMES	151	341	39	28	373	76	133	779	139	61	1,239	34	3,393
	APPROACH %	28%	64%	7%	6%	78%	16%	13%	74%	13%	5%	93%	3%	
	APP/DEPART	531	/	500	477	/	570	1,051	/	849	1,334	/	1,474	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	89	195	20	13	220	52	68	389	92	36	679	19	1,879
	APPROACH %	29%	64%	7%	5%	77%	18%	12%	70%	17%	5%	92%	3%	
	PEAK HR FACTOR	0.826			0.783			0.911			0.868			0.859
	APP/DEPART	304	/	282	285	/	348	554	/	424	736	/	825	0
PM	04:00 PM	25	72	12	3	63	15	16	229	26	8	127	10	606
	4:15 PM	22	71	12	3	63	16	16	192	29	6	128	3	561
	4:30 PM	25	90	20	9	74	17	19	238	29	7	127	6	661
	4:45 PM	15	63	12	8	64	13	15	185	18	4	125	2	524
	5:00 PM	22	85	6	8	74	14	12	235	15	5	155	10	641
	5:15 PM	17	70	6	5	67	11	6	154	16	6	144	3	505
	5:30 PM	25	63	11	4	59	17	10	216	20	3	162	6	596
	5:45 PM	10	56	5	10	56	7	12	145	18	4	105	3	431
	VOLUMES	181	641	102	58	592	127	123	1,788	194	47	1,205	45	5,103
	APPROACH %	20%	69%	11%	7%	76%	16%	6%	85%	9%	4%	93%	3%	
	APP/DEPART	924	/	804	777	/	831	2,105	/	1,951	1,297	/	1,517	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	84	309	50	28	275	60	59	850	91	21	535	21	2,387
	APPROACH %	19%	70%	11%	8%	76%	17%	6%	85%	9%	4%	93%	4%	
	PEAK HR FACTOR	0.820			0.908			0.877			0.850			0.903
	APP/DEPART	443	/	389	363	/	387	1,003	/	929	578	/	682	0

0	0	1	0	1
0	0	0	0	0
0	0	2	1	3
0	0	2	0	2
0	0	1	1	2
0	0	0	0	0
0	0	1	1	2
0	0	1	0	1
0	0	1	0	1
0	0	8	3	11

1	0	1	0	2
0	0	1	1	2
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0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	0	1	0	1
0	0	0	0	0
1	0	5	3	9





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
11  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
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OTHER  
OTHER

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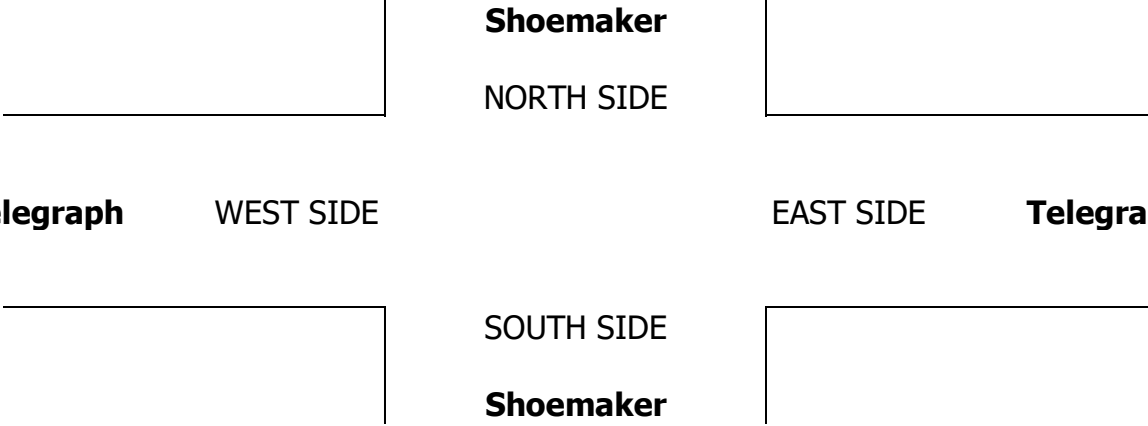
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	5	5	0	0	10	1	0	8	2	1	14	1	47
	7:15 AM	12	10	2	0	9	0	1	4	9	1	13	0	61
	7:30 AM	2	6	0	0	4	1	0	11	3	1	7	0	35
	7:45 AM	2	9	0	1	7	3	0	12	4	1	4	2	45
	8:00 AM	7	9	1	0	6	2	4	11	3	0	16	0	59
	8:15 AM	4	9	0	0	7	2	2	7	1	0	19	0	51
	8:30 AM	2	4	2	2	10	4	0	9	6	2	16	1	58
	8:45 AM	8	5	1	0	7	4	1	8	2	1	7	0	44
	VOLUMES	42	57	6	3	60	17	8	70	30	7	96	4	400
	APPROACH %	40%	54%	6%	4%	75%	21%	7%	65%	28%	7%	90%	4%	
	APP/DEPART	105	/	67	80	/	97	108	/	79	107	/	157	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	15	33	1	1	24	8	4	41	11	2	46	2	190
	APPROACH %	31%	67%	2%	3%	73%	24%	7%	71%	19%	4%	92%	4%	
	PEAK HR FACTOR	0.721			0.750			0.806			0.658			0.805
	APP/DEPART	49	/	39	33	/	37	58	/	43	50	/	71	0
PM	04:00 PM	3	11	0	0	3	2	6	12	3	2	7	0	49
	4:15 PM	3	8	2	0	5	1	3	12	5	3	10	1	53
	4:30 PM	3	6	2	0	7	0	0	7	3	1	8	0	37
	4:45 PM	2	5	4	0	5	3	2	8	1	0	5	0	35
	5:00 PM	2	8	1	0	5	0	0	3	4	2	9	0	34
	5:15 PM	0	4	0	0	5	1	1	6	2	0	4	0	23
	5:30 PM	4	4	0	0	5	2	2	5	1	0	5	0	28
	5:45 PM	1	2	0	0	7	0	2	4	3	0	1	0	20
	VOLUMES	18	48	9	0	42	9	16	57	22	8	49	1	279
	APPROACH %	24%	64%	12%	0%	82%	18%	17%	60%	23%	14%	84%	2%	
	APP/DEPART	75	/	64	51	/	72	95	/	66	58	/	77	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	10	27	9	0	22	4	5	30	13	6	32	1	159
	APPROACH %	22%	59%	20%	0%	85%	15%	10%	63%	27%	15%	82%	3%	
	PEAK HR FACTOR	0.885			0.813			0.600			0.696			0.750
	APP/DEPART	46	/	33	26	/	41	48	/	39	39	/	46	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
11  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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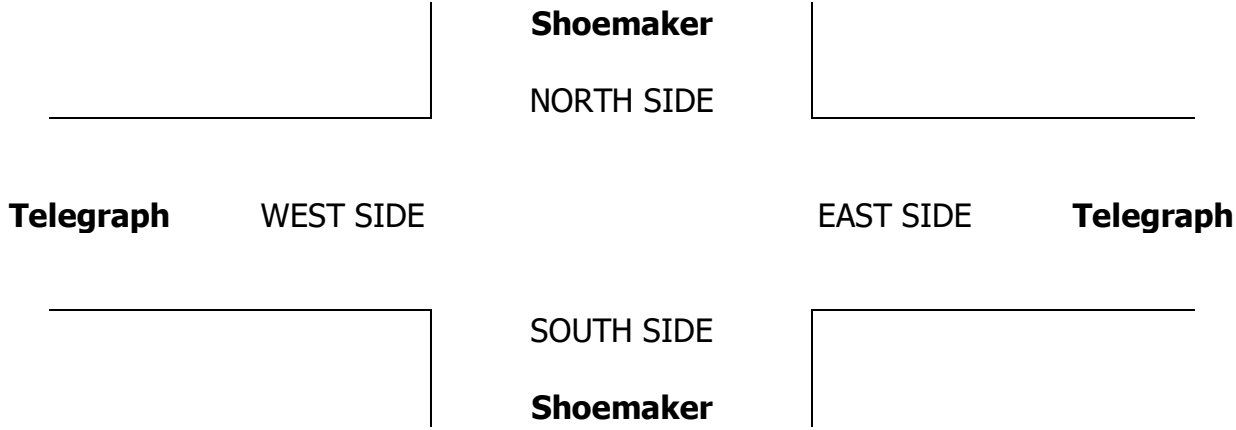
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

AM	7:00 AM	0	1	1	0	2	1	0	1	0	0	0	0	6
	7:15 AM	2	3	0	0	1	0	2	0	0	0	1	0	9
	7:30 AM	0	0	0	0	1	0	0	0	1	0	2	0	4
	7:45 AM	1	2	0	0	4	0	0	2	0	0	1	0	10
	8:00 AM	0	1	0	0	1	1	0	1	0	0	0	0	4
	8:15 AM	1	0	0	0	1	0	0	1	1	1	1	0	6
	8:30 AM	0	1	0	0	2	0	0	2	1	0	0	0	6
	8:45 AM	1	1	0	0	2	0	0	0	0	0	0	0	4
	VOLUMES	5	9	1	0	14	2	2	7	3	1	5	0	49
	APPROACH %	33%	60%	7%	0%	88%	13%	17%	58%	25%	17%	83%	0%	
	APP/DEPART	15	/	11	16	/	18	12	/	8	6	/	12	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	2	3	0	0	7	1	0	4	2	1	4	0	24
PM	APPROACH %	40%	60%	0%	0%	88%	13%	0%	67%	33%	20%	80%	0%	
	PEAK HR FACTOR	0.417			0.500			0.750			0.625			0.600
	APP/DEPART	5	/	3	8	/	10	6	/	4	5	/	7	0
	04:00 PM	0	0	0	0	4	0	2	0	0	0	0	0	6
	4:15 PM	0	3	0	0	1	0	0	0	0	0	1	0	5
	4:30 PM	0	1	0	0	0	0	0	0	0	0	2	0	3
	4:45 PM	0	0	0	0	2	0	0	1	0	0	0	0	3
	5:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	VOLUMES	1	5	0	0	11	0	2	1	0	0	3	0	23
	APPROACH %	17%	83%	0%	0%	100%	0%	67%	33%	0%	0%	100%	0%	
	APP/DEPART	6	/	7	11	/	11	3	/	1	3	/	4	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	4	0	0	5	0	0	1	0	0	3	0	13
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.333			0.625			0.250			0.375			0.650
	APP/DEPART	4	/	4	5	/	5	1	/	1	3	/	3	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
11  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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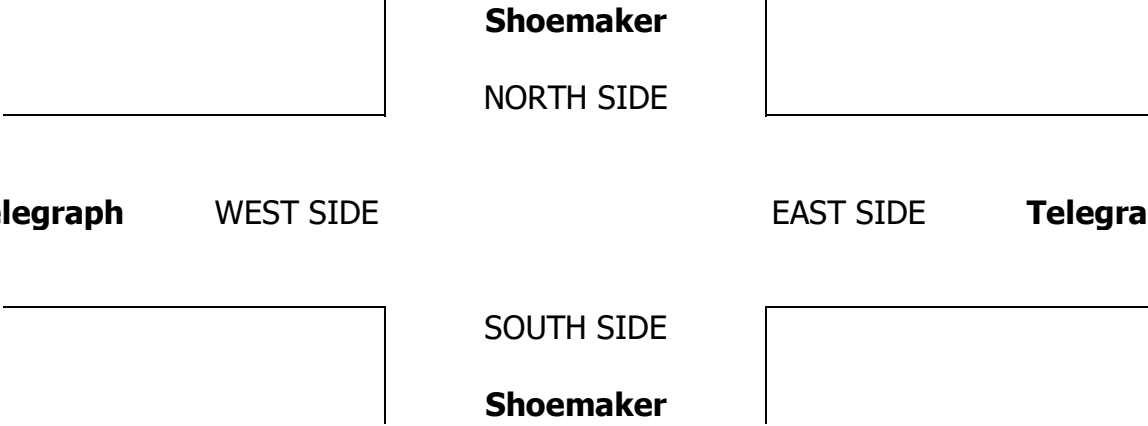
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	4	0	0	1	0	1	1	3	0	1	0	13
	7:15 AM	1	3	0	0	4	1	2	0	2	0	3	0	16
	7:30 AM	2	3	0	0	2	1	0	2	1	0	2	0	13
	7:45 AM	2	3	0	0	5	0	0	1	2	0	3	1	17
	8:00 AM	2	1	0	0	2	0	1	1	1	0	2	0	10
	8:15 AM	1	1	0	1	2	0	0	1	1	0	1	0	8
	8:30 AM	2	2	1	0	3	0	1	1	1	0	1	0	12
	8:45 AM	0	4	0	0	0	0	0	2	0	0	3	0	9
	VOLUMES	12	21	1	1	19	2	5	9	11	0	16	1	98
	APPROACH %	35%	62%	3%	5%	86%	9%	20%	36%	44%	0%	94%	6%	
	APP/DEPART	34	/	27	22	/	30	25	/	11	17	/	30	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	7	8	0	1	11	1	1	5	5	0	8	1	48
	APPROACH %	47%	53%	0%	8%	85%	8%	9%	45%	45%	0%	89%	11%	
	PEAK HR FACTOR	0.750			0.650			0.917			0.563			0.706
	APP/DEPART	15	/	10	13	/	16	11	/	6	9	/	16	0
	04:00 PM	4	6	1	0	5	0	0	0	3	0	2	0	21
	4:15 PM	4	4	0	0	5	1	0	1	4	1	2	0	22
	4:30 PM	1	5	1	0	1	0	1	2	2	0	1	0	14
	4:45 PM	3	3	0	0	1	1	0	0	3	0	2	0	13
	5:00 PM	1	6	0	0	2	1	0	0	2	0	1	0	13
	5:15 PM	1	1	0	0	6	0	2	1	0	1	0	0	12
	5:30 PM	4	3	1	0	1	0	1	0	1	1	0	0	12
	5:45 PM	0	5	0	0	5	0	0	2	5	0	0	0	17
	VOLUMES	18	33	3	0	26	3	4	6	20	3	8	0	124
	APPROACH %	33%	61%	6%	0%	90%	10%	13%	20%	67%	27%	73%	0%	
	APP/DEPART	54	/	37	29	/	49	30	/	9	11	/	29	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	9	18	1	0	9	3	1	3	11	1	6	0	62
	APPROACH %	32%	64%	4%	0%	75%	25%	7%	20%	73%	14%	86%	0%	
	PEAK HR FACTOR	0.875			0.500			0.750			0.583			0.705
	APP/DEPART	28	/	19	12	/	21	15	/	4	7	/	18	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
11  
SIGNAL

CLASS 5:

RV

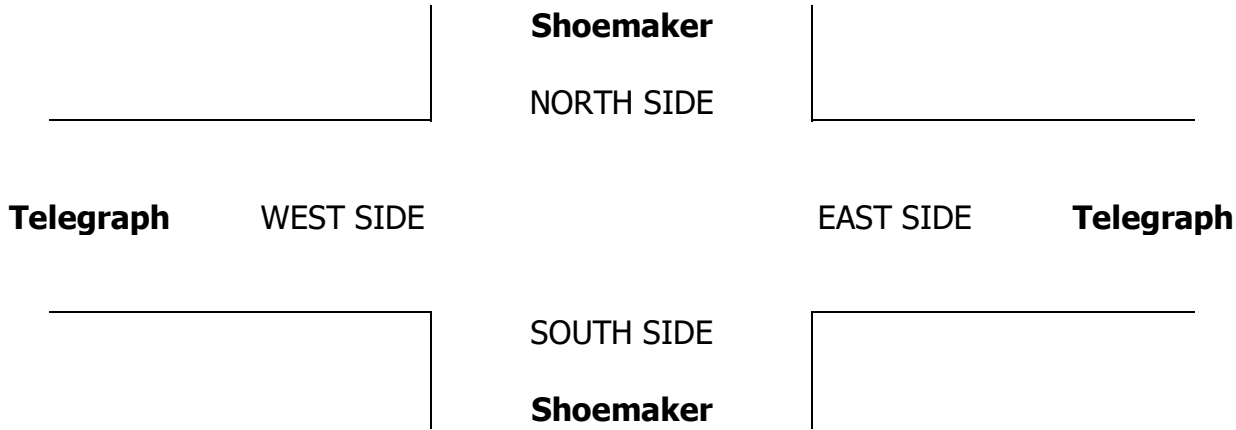
NOTES:

AM  
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OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Shoemaker			Shoemaker			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0					
	BEGIN PEAK HR	7:30 AM																
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	1					
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%					
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0					
	BEGIN PEAK HR	4:15 PM																
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	1					
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0.250					
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000			0.000	
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Shoemaker Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 11 SIGNAL
CLASS 6:	NOTES:		AM PM MD OTHER OTHER	<div>▲ N  S ▼</div> <div>◀ W E ▶</div>
BUSES				

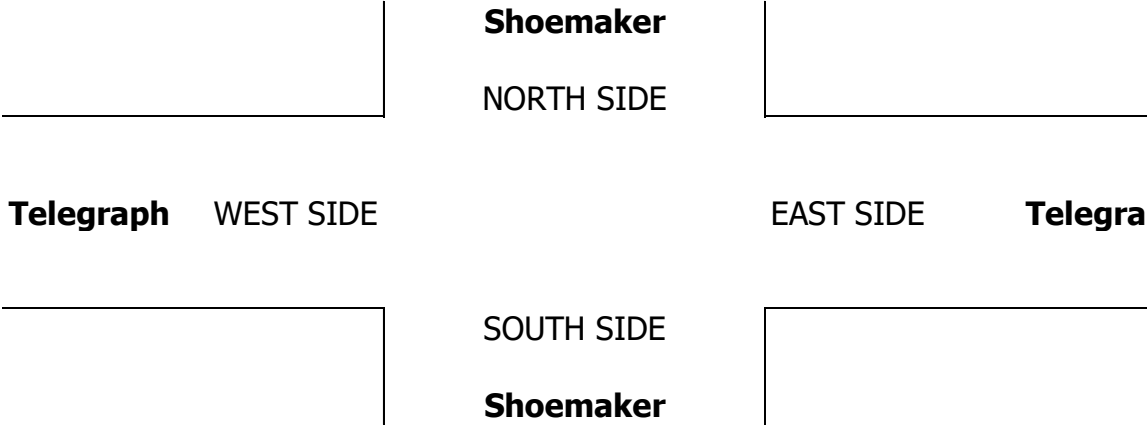
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	1	2	1	0	0	0	0	1	0	5
	7:15 AM	0	0	0	1	1	2	0	0	0	0	1	0	5
	7:30 AM	0	0	0	0	2	0	1	1	0	0	0	0	4
	7:45 AM	0	0	0	0	4	0	0	1	0	0	1	0	6
	8:00 AM	0	2	0	0	0	1	1	1	0	0	1	0	6
	8:15 AM	0	3	0	0	0	0	0	0	0	0	1	0	4
	8:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
	8:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
	VOLUMES	0	8	0	2	9	4	3	4	0	0	5	0	35
	APPROACH %	0%	100%	0%	13%	60%	27%	43%	57%	0%	0%	100%	0%	
	APP/DEPART	8	/	11	15	/	9	7	/	6	5	/	9	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	0	5	0	0	6	1	2	3	0	0	3	0	20
	APPROACH %	0%	100%	0%	0%	86%	14%	40%	60%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.417			0.438			0.625			0.750			0.833
	APP/DEPART	5	/	7	7	/	6	5	/	3	3	/	4	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	4	0	0	4	0	8
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	4	/	4	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	0	0	0	0	0	0	2	0	0	2	0	4
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.500			0.500			0.500
	APP/DEPART	0	/	0	0	/	0	2	/	2	2	/	2	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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☒ Add U-Turns to Left Turns

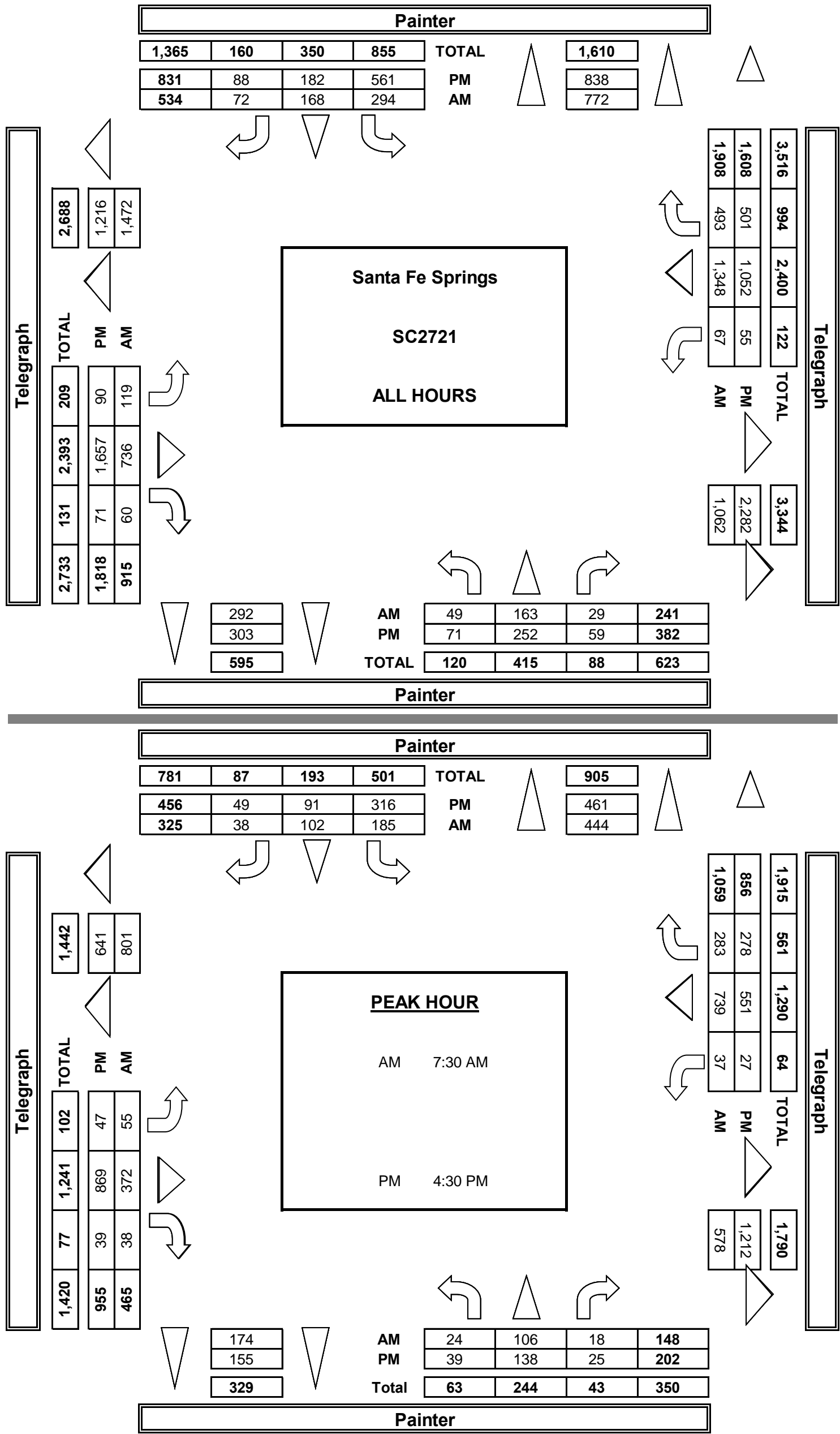
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Painter			Painter			Telegraph			Telegraph								
LANES:		NL 1	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	5	14	2	22	10	8	12	93	5	6	158	51	386	0	0	0	0	0
	7:15 AM	3	19	3	22	25	6	11	73	7	6	197	59	431	0	0	1	0	1
	7:30 AM	4	14	4	32	19	7	13	84	9	3	188	48	425	0	0	0	0	0
	7:45 AM	6	45	5	69	37	14	12	98	7	9	190	76	568	0	0	0	0	0
	8:00 AM	6	33	2	51	31	7	17	88	10	13	196	99	553	0	0	0	2	2
	8:15 AM	8	14	7	33	15	10	13	102	12	12	165	60	451	0	0	0	1	1
	8:30 AM	10	14	2	32	14	9	20	89	4	12	112	46	364	0	0	1	0	1
	8:45 AM	7	10	4	33	17	11	21	109	6	6	142	54	420	0	0	1	0	1
	VOLUMES	49	163	29	294	168	72	119	736	60	67	1,348	493	3,598	0	0	3	3	6
	APPROACH %	20%	68%	12%	55%	31%	13%	13%	80%	7%	4%	71%	26%						
	APP/DEPART	241	/	772	534	/	292	915	/	1,062	1,908	/	1,472	0					
	BEGIN PEAK HR	7:30 AM																	
VOLUMES	24	106	18	185	102	38	55	372	38	37	739	283	1,997						
APPROACH %	16%	72%	12%	57%	31%	12%	12%	80%	8%	3%	70%	27%							
PEAK HR FACTOR	0.661			0.677			0.915			0.860			0.879						
APP/DEPART	148	/	444	325	/	174	465	/	578	1,059	/	801	0						
PM	04:00 PM	11	26	11	74	31	18	9	228	10	4	125	66	613	0	0	1	0	1
	4:15 PM	4	38	12	50	29	6	13	201	11	6	127	61	558	0	0	0	0	0
	4:30 PM	12	35	9	79	20	12	13	263	13	7	131	69	663	0	0	0	0	0
	4:45 PM	5	33	4	63	24	19	6	179	8	8	115	76	540	0	0	1	1	2
	5:00 PM	10	40	10	91	27	7	17	252	12	8	158	66	698	0	0	1	1	2
	5:15 PM	12	30	2	83	20	11	11	175	6	4	147	67	568	0	0	0	0	0
	5:30 PM	10	23	3	57	18	11	13	207	6	7	147	47	549	0	0	2	2	4
	5:45 PM	7	27	8	64	13	4	8	152	5	11	102	49	450	0	0	0	1	1
	VOLUMES	71	252	59	561	182	88	90	1,657	71	55	1,052	501	4,639	0	0	5	5	10
	APPROACH %	19%	66%	15%	68%	22%	11%	5%	91%	4%	3%	65%	31%						
	APP/DEPART	382	/	838	831	/	303	1,818	/	2,282	1,608	/	1,216	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	39	138	25	316	91	49	47	869	39	27	551	278	2,469					
	APPROACH %	19%	68%	12%	69%	20%	11%	5%	91%	4%	3%	64%	32%						
PEAK HR FACTOR	0.842			0.912			0.826			0.922			0.884						
APP/DEPART	202	/	461	456	/	155	955	/	1,212	856	/	641	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	0	1	5	2	8	0	1	2	0	3	0	0	3	2	5
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	2	0	4	0	1	0	0	1	0	1	2	0	3
	0	3	0	2	5	0	3	0	2	5	0	0	0	0	0
	0	1	2	0	3	0	1	2	0	3	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
PM	0	8	9	4	21	0	7	4	2	13	0	1	5	2	8
	2	2	0	1	5	2	1	0	1	4	0	1	0	0	1
	2	1	2	1	6	2	1	0	1	4	0	0	2	0	2
	3	2	3	2	10	3	2	2	2	9	0	0	1	0	1
	0	1	2	0	3	0	1	2	0	3	0	0	0	0	0
	0	3	3	0	6	0	3	3	0	6	0	0	0	0	0
	2	4	0	3	9	2	2	0	2	6	0	2	0	1	3
	1	2	1	1	5	1	2	1	1	5	0	0	0	0	0
	1	0	1	0	2	1	0	0	0	1	0	0	1	0	1
TOTAL						TOTAL					TOTAL				
						11	15	12	8	46	0	3	4	1	8



AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Painter Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 12 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Painter			Painter			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	6	16	3	25	14	9	13	104	5	6	169	54	421					0			
	7:15 AM	5	20	3	23	28	8	11	77	7	6	206	60	451					0			
	7:30 AM	5	15	4	36	21	8	14	93	10	3	199	51	457					0			
	7:45 AM	7	49	5	71	42	15	15	108	8	9	196	79	601					0			
	8:00 AM	8	38	2	57	33	10	18	96	10	14	204	110	598					0			
	8:15 AM	11	15	7	37	18	11	15	109	13	13	176	62	485					0			
	8:30 AM	12	15	2	36	15	11	21	99	4	13	118	47	392					0			
	8:45 AM	7	13	4	38	20	11	24	114	9	6	150	61	455					0			
	VOLUMES	59	179	30	321	190	82	129	797	65	69	1,416	523	3,857	0	0	0	0	0			
	APPROACH %	22%	67%	11%	54%	32%	14%	13%	80%	7%	3%	71%	26%									
APP/DEPART	267	/	830	593	/	323	991	/	1,147	2,007	/	1,557	0									
BEGIN PEAK HR	7:30 AM																					
VOLUMES	30	116	18	200	113	43	62	404	40	38	775	302	2,140									
APPROACH %	18%	71%	11%	56%	32%	12%	12%	80%	8%	3%	70%	27%										
PEAK HR FACTOR	0.678			0.698			0.926			0.850			0.891									
APP/DEPART	164	/	479	356	/	191	506	/	622	1,114	/	848	0									
PM	04:00 PM	12	28	11	74	35	19	10	234	11	4	128	70	634					0			
	4:15 PM	4	46	12	51	31	8	14	209	12	7	136	65	592					0			
	4:30 PM	13	36	10	80	23	13	15	268	17	7	141	72	692					0			
	4:45 PM	5	34	4	65	25	21	7	184	8	9	120	79	559					0			
	5:00 PM	10	41	10	94	28	7	19	255	12	10	165	69	719					0			
	5:15 PM	12	35	2	87	20	13	12	181	6	4	150	72	592					0			
	5:30 PM	10	24	4	59	19	11	16	208	6	7	149	48	559					0			
	5:45 PM	7	28	8	65	13	4	8	155	6	11	103	50	457					0			
	VOLUMES	72	272	60	573	192	95	99	1,693	77	58	1,090	524	4,803	0	0	0	0	0			
	APPROACH %	18%	67%	15%	67%	22%	11%	5%	91%	4%	3%	65%	31%									
	APP/DEPART	404	/	894	860	/	327	1,868	/	2,326	1,672	/	1,257	0								
	BEGIN PEAK HR	4:30 PM																				
	VOLUMES	40	146	26	325	96	54	52	888	43	30	575	291	2,562								
	APPROACH %	19%	69%	12%	69%	20%	11%	5%	90%	4%	3%	64%	32%									
PEAK HR FACTOR	0.863			0.919			0.820			0.917			0.891									
APP/DEPART	211	/	488	474	/	168	982	/	1,238	895	/	668	0									





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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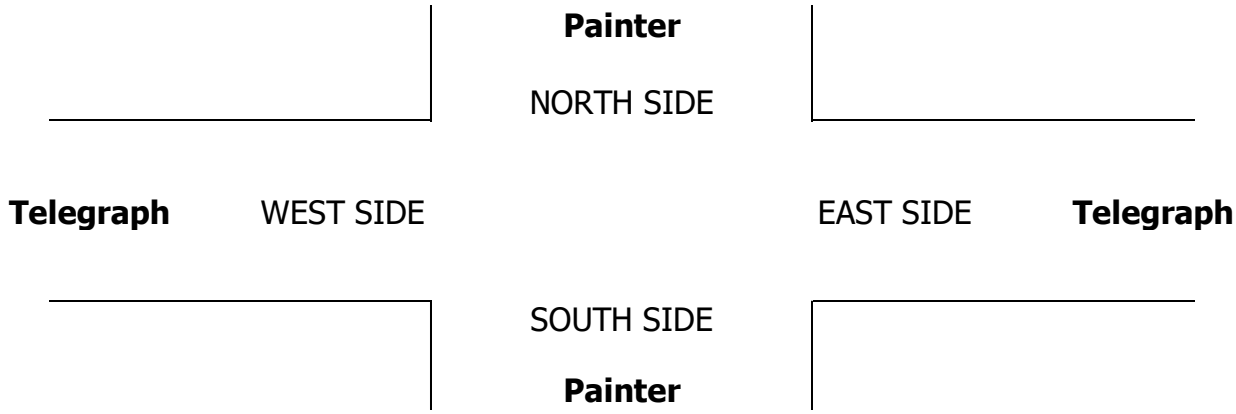
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Painter			Painter			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	1.5	0.5	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	3	11	1	18	6	6	11	78	5	6	141	47	333
	7:15 AM	1	18	3	21	23	5	11	67	7	6	181	57	400
	7:30 AM	3	12	4	26	16	5	11	74	8	3	175	42	379
	7:45 AM	4	42	5	66	32	12	8	84	6	9	184	73	525
	8:00 AM	3	26	2	42	27	5	15	78	10	12	184	84	488
	8:15 AM	2	12	7	29	13	9	12	94	10	11	149	57	405
	8:30 AM	7	12	2	27	12	5	19	76	4	11	103	45	323
	8:45 AM	7	8	4	27	14	11	19	102	3	6	133	45	379
	VOLUMES	30	141	28	256	143	58	106	653	53	64	1,250	450	3,232
	APPROACH %	15%	71%	14%	56%	31%	13%	13%	80%	7%	4%	71%	26%	
	APP/DEPART	199	/	694	457	/	258	812	/	939	1,764	/	1,341	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	12	92	18	163	88	31	46	330	34	33	692	256	1,797
	APPROACH %	10%	75%	15%	58%	31%	11%	11%	80%	8%	3%	70%	26%	
	PEAK HR FACTOR	0.598			0.641			0.884			0.878			0.856
	APP/DEPART	122	/	394	282	/	155	410	/	513	983	/	735	0
PM	04:00 PM	10	23	11	74	27	17	8	219	8	4	121	60	582
	4:15 PM	4	28	12	48	26	3	12	190	10	5	117	55	510
	4:30 PM	11	33	8	77	15	11	12	256	9	7	120	65	624
	4:45 PM	5	31	4	61	23	18	4	171	8	7	109	72	513
	5:00 PM	10	38	10	86	25	7	14	247	12	7	148	60	664
	5:15 PM	12	27	2	80	20	10	10	167	6	4	142	61	541
	5:30 PM	10	22	2	55	17	11	11	205	6	7	143	45	534
	5:45 PM	7	25	8	63	13	4	8	149	4	11	101	47	440
	VOLUMES	69	227	57	544	166	81	79	1,604	63	52	1,001	465	4,408
	APPROACH %	20%	64%	16%	69%	21%	10%	5%	92%	4%	3%	66%	31%	
	APP/DEPART	353	/	768	791	/	277	1,746	/	2,209	1,518	/	1,154	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	38	129	24	304	83	46	38	841	35	24	519	258	2,342
	APPROACH %	20%	68%	13%	70%	19%	11%	4%	92%	4%	3%	65%	32%	
	PEAK HR FACTOR	0.823			0.917			0.827			0.933			0.882
	APP/DEPART	191	/	425	433	/	142	916	/	1,170	802	/	605	0

0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	1	0	1
0	0	1	0	1
0	0	3	2	5

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	1	2
0	0	0	0	0
0	0	1	2	3
0	0	0	1	1
0	0	3	4	7



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
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OTHER  
OTHER

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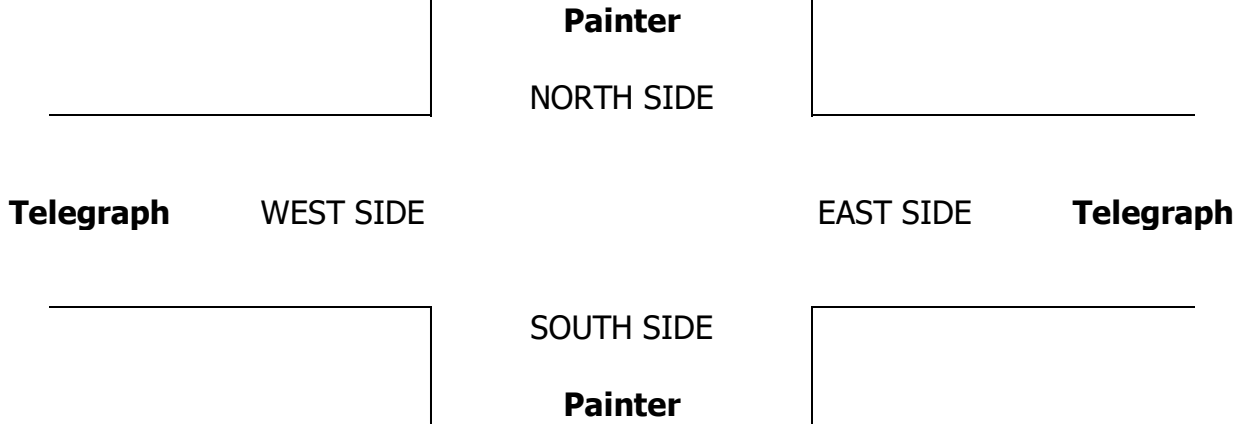
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Painter			Painter			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	1.5	0.5	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	3	1	3	2	2	1	11	0	0	15	3	43
	7:15 AM	1	1	0	1	1	0	0	5	0	0	15	2	26
	7:30 AM	1	2	0	5	3	2	2	7	1	0	8	6	37
	7:45 AM	2	1	0	2	3	2	3	11	1	0	3	1	29
	8:00 AM	3	5	0	8	4	1	2	7	0	1	10	8	49
	8:15 AM	6	2	0	3	0	1	0	5	2	1	12	2	34
	8:30 AM	3	2	0	4	2	4	1	10	0	1	8	0	35
	8:45 AM	0	1	0	4	2	0	1	5	2	0	7	5	27
	VOLUMES	18	17	1	30	17	12	10	61	6	3	78	27	280
	APPROACH %	50%	47%	3%	51%	29%	20%	13%	79%	8%	3%	72%	25%	
	APP/DEPART	36	/	54	59	/	25	77	/	93	108	/	108	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	12	10	0	18	10	6	7	30	4	1	33	17	149
PM	APPROACH %	55%	45%	0%	53%	29%	18%	17%	73%	10%	2%	63%	33%	
	PEAK HR FACTOR	0.688			0.654			0.683			0.684			0.760
	APP/DEPART	22	/	34	34	/	15	41	/	49	52	/	51	0
	04:00 PM	1	2	0	0	3	1	1	8	2	0	3	4	25
	4:15 PM	0	8	0	2	3	3	1	9	1	1	6	4	38
	4:30 PM	1	2	1	2	5	1	0	6	3	0	7	3	31
	4:45 PM	0	2	0	1	0	0	2	6	0	1	5	3	20
	5:00 PM	0	2	0	4	2	0	3	5	0	0	8	6	30
	5:15 PM	0	1	0	1	0	0	1	6	0	0	4	5	18
	5:30 PM	0	0	1	1	1	0	1	2	0	0	4	2	12
	5:45 PM	0	2	0	1	0	0	0	2	1	0	1	2	9
	VOLUMES	2	19	2	12	14	5	9	44	7	2	38	29	183
	APPROACH %	9%	83%	9%	39%	45%	16%	15%	73%	12%	3%	55%	42%	
	APP/DEPART	23	/	55	31	/	22	60	/	59	69	/	47	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	7	1	8	7	1	6	23	3	0	24	17	99
	APPROACH %	11%	78%	11%	50%	44%	6%	19%	72%	9%	0%	57%	40%	
	PEAK HR FACTOR	0.563			0.500			0.889			0.750			0.798
	APP/DEPART	9	/	30	16	/	10	32	/	33	42	/	26	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0

0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	2	1	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Painter			Painter			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	1.5	0.5	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	1	1	0	0	2	0	0	0	1	5
	7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
	7:45 AM	0	1	0	0	1	0	0	2	0	0	1	2	7
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	2
	8:15 AM	0	0	0	0	1	0	0	2	0	0	2	1	6
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	2
	8:45 AM	0	0	0	1	0	0	0	1	0	0	0	3	5
	VOLUMES	1	1	0	2	3	0	0	9	0	0	6	9	31
	APPROACH %	50%	50%	0%	40%	60%	0%	0%	100%	0%	0%	40%	60%	
APP/DEPART	2	/	10	5	/	3	9	/	11	15	/	7	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	1	0	0	2	0	0	5	0	0	6	4	18	
APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	60%	40%		
PEAK HR FACTOR	0.250			0.500			0.625			0.833			0.643	
APP/DEPART	1	/	5	2	/	2	5	/	5	10	/	6	0	
PM	04:00 PM	0	1	0	0	0	0	0	0	0	0	0	2	3
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	2	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	2	1	3
	4:45 PM	0	0	0	1	1	0	0	1	0	0	0	1	4
	5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	4	1	0	0	1	0	0	3	6	17
	APPROACH %	0%	100%	0%	80%	20%	0%	0%	100%	0%	0%	33%	67%	
	APP/DEPART	2	/	8	5	/	1	1	/	5	9	/	3	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	3	1	0	0	1	0	0	2	2	9
	APPROACH %	0%	0%	0%	75%	25%	0%	0%	100%	0%	0%	50%	50%	
PEAK HR FACTOR	0.000			0.500			0.250			0.333			0.563	
APP/DEPART	0	/	2	4	/	1	1	/	4	4	/	2	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Painter

NORTH SIDE

Telegraph

WEST SIDE

SOUTH SIDE

Painter

EAST SIDE

Telegraph

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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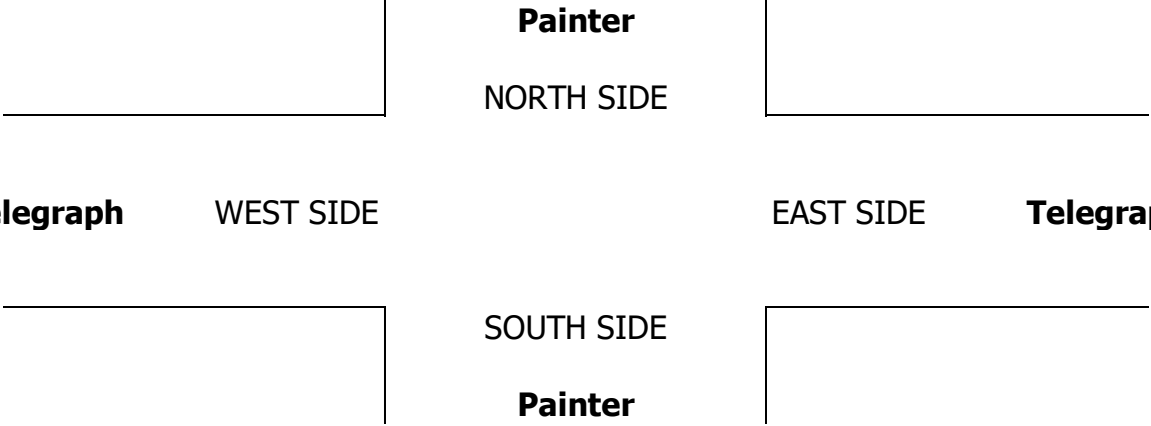
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Painter			Painter			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	1.5	0.5	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	1	0	0	1	0	0	1	0	3
	7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
	7:45 AM	0	1	0	0	1	0	0	1	0	0	1	0	4
	8:00 AM	0	0	0	1	0	1	0	1	0	0	1	0	4
	8:15 AM	0	0	0	1	1	0	1	1	0	0	1	0	5
	8:30 AM	0	0	0	1	0	0	0	2	0	0	1	0	4
	8:45 AM	0	1	0	1	1	0	1	0	1	0	2	0	7
	VOLUMES	0	2	0	4	5	2	2	8	1	0	9	0	33
	APPROACH %	0%	100%	0%	36%	45%	18%	18%	73%	9%	0%	100%	0%	
	APP/DEPART	2	/	4	11	/	6	11	/	12	9	/	11	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	0	1	0	2	2	1	1	5	0	0	5	0	17
	APPROACH %	0%	100%	0%	40%	40%	20%	17%	83%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.625			0.750			0.625			0.850
	APP/DEPART	1	/	2	5	/	2	6	/	7	5	/	6	0
	04:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
	4:15 PM	0	2	0	0	0	0	0	1	0	0	2	0	5
	4:30 PM	0	0	0	0	0	0	1	1	1	0	2	0	5
	4:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
	5:15 PM	0	2	0	1	0	1	0	1	0	0	0	1	6
	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	4	0	1	1	2	2	5	1	1	6	1	24
	APPROACH %	0%	100%	0%	25%	25%	50%	25%	63%	13%	13%	75%	13%	
	APP/DEPART	4	/	7	4	/	3	8	/	6	8	/	8	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	2	0	1	0	2	1	2	1	1	4	1	15
	APPROACH %	0%	100%	0%	33%	0%	67%	25%	50%	25%	17%	67%	17%	
	PEAK HR FACTOR	0.250			0.375			0.333			0.750			0.625
	APP/DEPART	2	/	4	3	/	2	4	/	3	6	/	6	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
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OTHER

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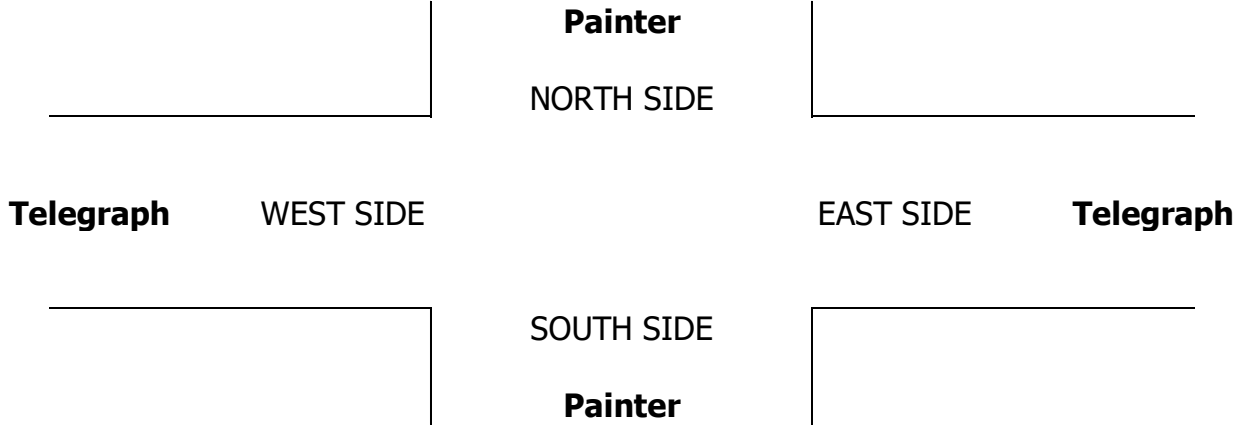
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Painter			Painter			Telegraph			Telegraph			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	1.5	0.5	1	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	/	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Painter  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
12  
SIGNAL

CLASS 6:

NOTES:

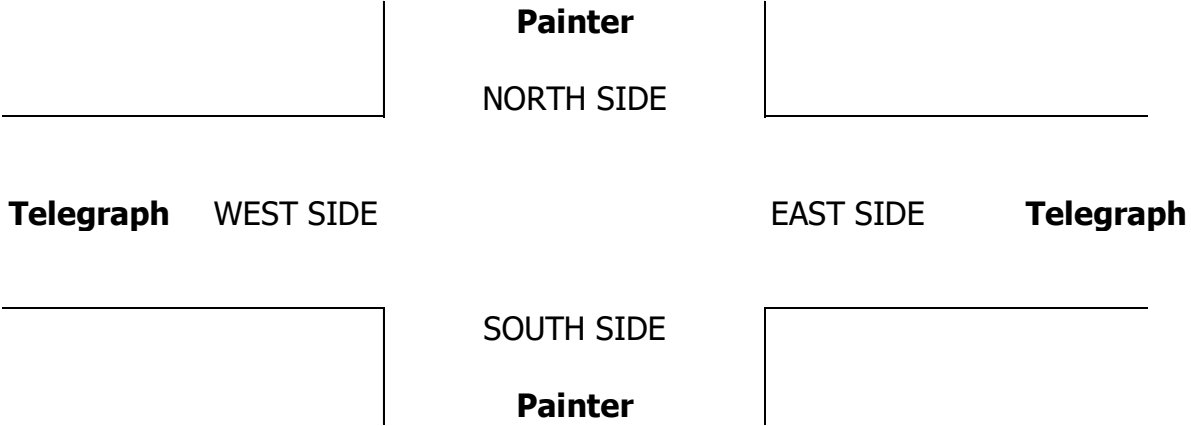
AM  
PM  
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OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Painter			Painter			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 1	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					
AM	7:00 AM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:30 AM	0	0	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0
	7:45 AM	0	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	0
	8:00 AM	0	2	0	0	0	0	1	0	0	1	6	10	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0
	VOLUMES	0	2	0	2	0	0	1	5	0	0	5	7	22				
	APPROACH %	0%	100%	0%	100%	0%	0%	17%	83%	0%	0%	42%	58%					
	APP/DEPART	2	/	10	2	/	0	6	/	7	12	/	5	0				
	BEGIN PEAK HR	7:30 AM																
PM	VOLUMES	0	2	0	2	0	0	1	2	0	0	3	6	16				
	APPROACH %	0%	100%	0%	100%	0%	0%	33%	67%	0%	0%	33%	67%					
	PEAK HR FACTOR	0.250			0.500			0.750			0.321			0.400				
	APP/DEPART	2	/	9	2	/	0	3	/	4	9	/	3	0				
	04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2				
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1				
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1				
	5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2				
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	3	0	0	4	0	7				
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%					
	APP/DEPART	0	/	0	0	/	0	3	/	3	4	/	4	0				
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	0	0	0	0	0	0	2	0	0	2	0	4				
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%					
	PEAK HR FACTOR	0.000			0.000			0.500			0.500			0.500				
	APP/DEPART	0	/	0	0	/	0	2	/	2	2	/	2	0				





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
13  
SIGNAL

NOTES:

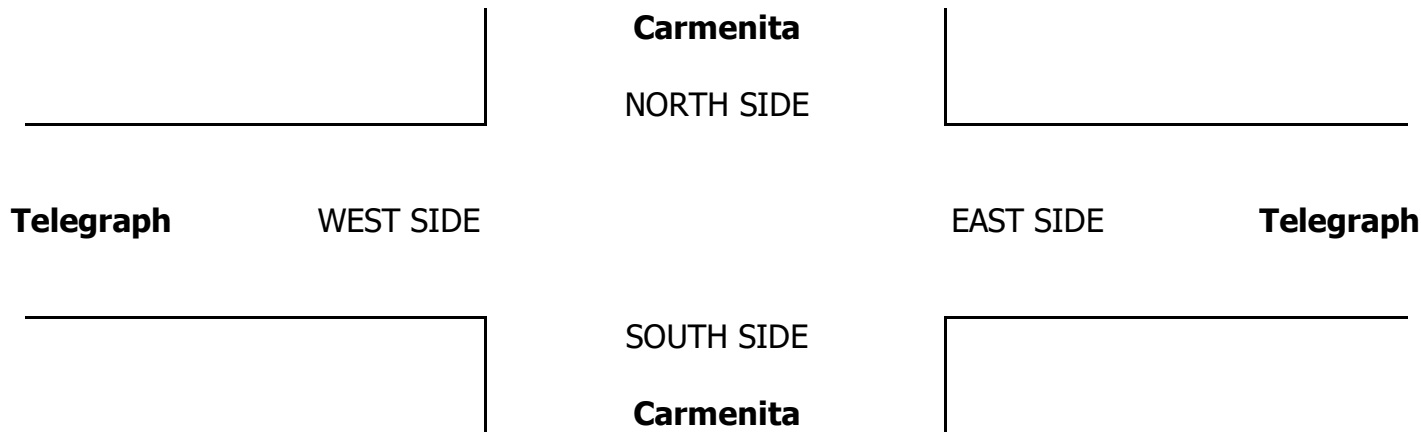
AM  
PM  
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OTHER

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☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS						
		Carmenita			Carmenita			Telegraph			Telegraph										
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL		
AM	7:00 AM	26	65	9	20	97	21	6	75	11	12	152	23	517	0	0	0	0	0		
	7:15 AM	22	73	17	27	108	15	9	69	15	21	202	30	608	0	0	0	1	1		
	7:30 AM	27	100	18	26	105	11	10	87	11	23	179	29	626	1	0	1	2	4		
	7:45 AM	31	103	24	41	94	15	14	107	27	26	257	41	780	0	1	2	0	3		
	8:00 AM	35	121	17	34	98	22	14	98	28	20	204	30	721	1	0	1	0	2		
	8:15 AM	41	103	17	27	109	16	14	94	23	24	160	35	663	0	1	0	1	2		
	8:30 AM	22	95	26	19	79	12	27	70	12	22	124	21	529	0	0	3	2	5		
	8:45 AM	37	107	23	28	81	24	22	71	28	31	156	44	652	0	1	2	3	6		
	VOLUMES	241	767	151	222	771	136	116	671	155	179	1,434	253	5,096	2	3	9	9	23		
	APPROACH %	21%	66%	13%	20%	68%	12%	12%	71%	16%	10%	77%	14%								
APP/DEPART	1,159	/	1,130	1,129	/	1,098	942	/	1,050	1,866	/	1,818	0								
BEGIN PEAK HR	7:30 AM																				
VOLUMES	134	427	76	128	406	64	52	386	89	93	800	135	2,790								
APPROACH %	21%	67%	12%	21%	68%	11%	10%	73%	17%	9%	78%	13%									
PEAK HR FACTOR	0.921			0.971			0.890			0.793			0.894								
APP/DEPART	637	/	612	598	/	587	527	/	591	1,028	/	1,000	0								
PM	04:00 PM	34	132	36	53	129	26	38	221	44	43	141	30	927	3	1	4	2	10		
	4:15 PM	31	146	33	43	140	31	35	197	30	45	135	43	909	1	0	0	6	7		
	4:30 PM	27	136	43	37	129	14	38	230	30	50	135	46	915	3	1	4	3	11		
	4:45 PM	26	179	33	33	122	16	34	211	28	44	157	48	931	0	2	4	3	9		
	5:00 PM	36	189	31	45	139	29	38	215	29	40	137	32	960	1	1	0	4	6		
	5:15 PM	32	163	31	53	121	24	36	185	28	41	144	39	897	1	0	4	2	7		
	5:30 PM	30	157	19	30	115	17	36	185	32	45	145	52	863	0	0	4	3	7		
	5:45 PM	13	172	35	40	133	22	33	183	24	41	124	53	873	1	1	1	1	4		
	VOLUMES	229	1,274	261	334	1,028	179	288	1,627	245	349	1,118	343	7,275	10	6	21	24	61		
	APPROACH %	13%	72%	15%	22%	67%	12%	13%	75%	11%	19%	62%	19%								
	APP/DEPART	1,764	/	1,890	1,541	/	1,608	2,160	/	2,240	1,810	/	1,537	0							
	BEGIN PEAK HR	4:15 PM																			
	VOLUMES	120	650	140	158	530	90	145	853	117	179	564	169	3,715							
	APPROACH %	13%	71%	15%	20%	68%	12%	13%	77%	10%	20%	62%	19%								
PEAK HR FACTOR	0.889			0.909			0.935			0.916			0.967								
APP/DEPART	910	/	960	778	/	815	1,115	/	1,163	912	/	777	0								

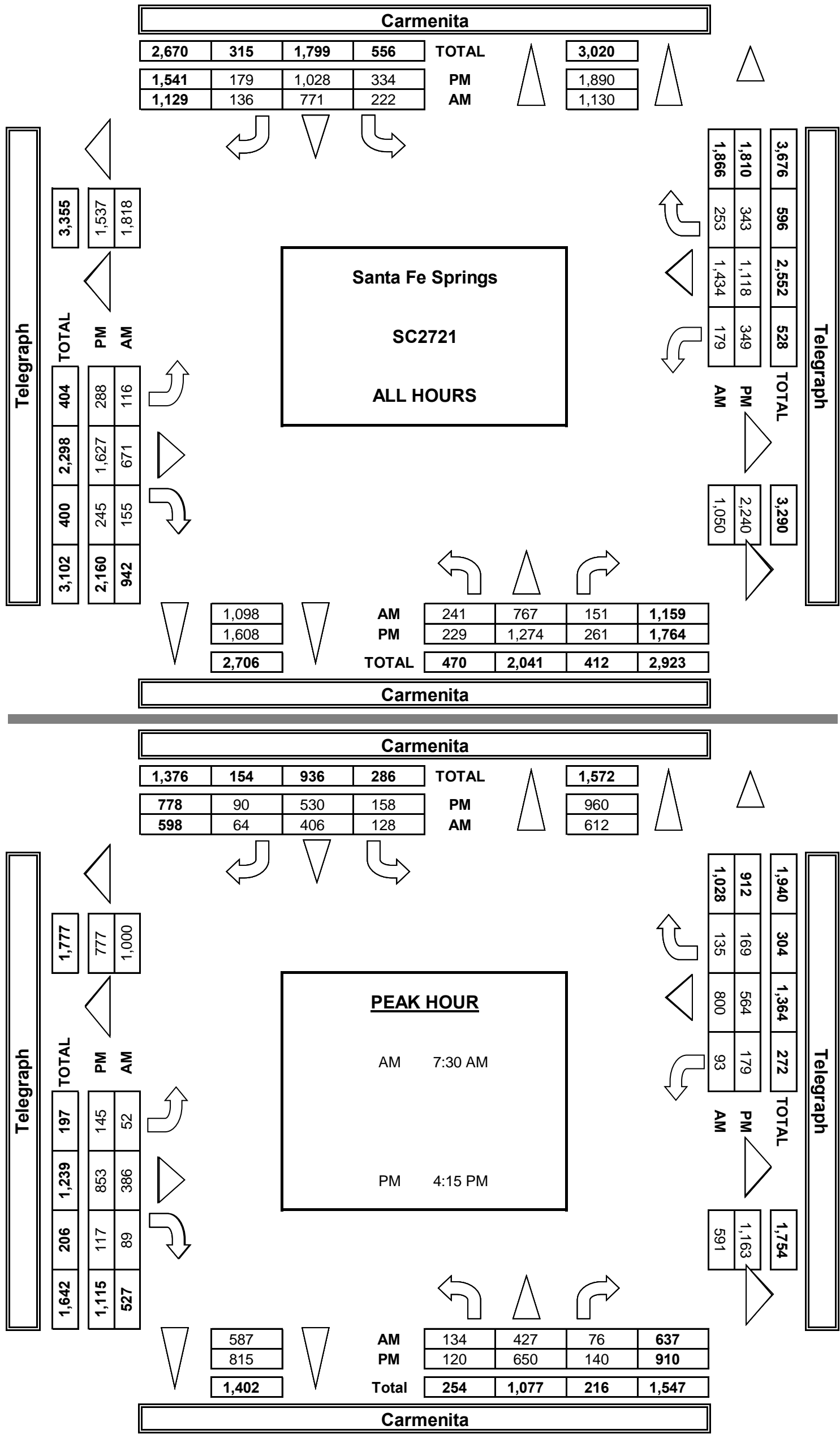


ALL PED AND BIKE					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
1	0	1	4	6	
1	1	2	3	7	
1	3	1	0	5	
1	2	0	1	4	
4	1	2	1	8	
1	2	2	1	6	
4	0	0	3	7	
5	2	1	1	9	
18	11	9	14	52	
7	5	8	3	23	
5	4	5	5	19	
3	3	3	1	10	
3	2	2	3	10	
5	6	4	3	18	
0	8	6	2	16	
1	0	2	2	5	
2	5	4	2	13	
26	33	34	21	114	

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	1	2	3
1	1	2	2	6
1	3	1	0	5
1	2	0	1	4
4	1	2	1	8
0	2	2	0	4
4	0	0	3	7
5	2	1	1	9
16	11	9	10	46
6	5	7	3	21
4	3	4	4	15
3	3	3	1	10
3	1	2	2	8
4	5	2	3	14
0	7	5	2	14
0	0	0	1	1
2	4	3	1	10
22	28	26	17	93

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1	0	0	2	3
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
2	0	0	4	6
1	0	1	0	2
1	1	1	1	4
0	0	0	0	0
0	1	0	1	2
1	1	2	0	4
0	1	1	0	2
1	0	2	1	4
0	1	1	1	3
4	5	8	4	21

AimTD LLC  
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

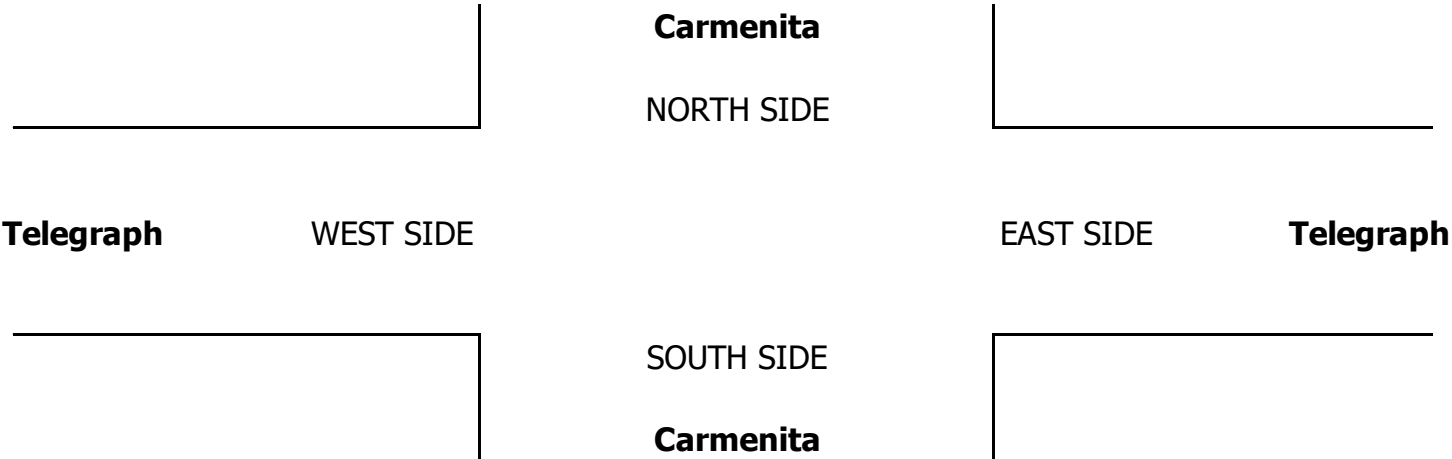
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 13 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Telegraph			Telegraph				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	29	71	9	22	102	23	6	85	14	13	161	25	557					0
	7:15 AM	24	82	19	28	114	15	9	73	16	25	210	31	643					0
	7:30 AM	33	104	18	28	113	11	12	93	13	26	188	34	671					0
	7:45 AM	33	114	27	46	100	18	16	116	31	30	266	44	840					0
	8:00 AM	39	131	17	39	102	23	16	105	35	22	214	32	772					0
	8:15 AM	46	109	19	29	112	17	15	100	30	25	168	35	703					0
	8:30 AM	23	98	26	21	84	12	29	81	13	23	133	22	563					0
	8:45 AM	45	114	25	29	91	28	22	77	34	32	161	48	703					0
	VOLUMES	270	821	159	240	816	147	124	728	183	193	1,500	270	5,450	0	0	0	0	0
	APPROACH %	22%	66%	13%	20%	68%	12%	12%	70%	18%	10%	76%	14%						
APP/DEPART	1,250	/	1,215	1,203	/	1,192	1,035	/	1,127	1,963	/	1,917	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	150	457	81	141	427	69	58	413	108	102	835	145	2,984						
APPROACH %	22%	66%	12%	22%	67%	11%	10%	71%	19%	9%	77%	13%							
PEAK HR FACTOR	0.920			0.970			0.890			0.797			0.889						
APP/DEPART	688	/	660	637	/	636	579	/	635	1,081	/	1,054	0						
PM	04:00 PM	37	138	37	54	131	26	40	225	46	44	145	31	952					0
	4:15 PM	35	152	35	46	146	32	36	204	33	46	143	44	948					0
	4:30 PM	31	143	45	38	133	16	39	236	33	56	141	48	955					0
	4:45 PM	27	185	34	33	124	16	34	217	30	45	162	49	953					0
	5:00 PM	38	195	32	46	141	33	39	220	30	40	142	33	986					0
	5:15 PM	34	165	34	53	124	25	37	191	29	41	148	40	919					0
	5:30 PM	31	161	19	31	119	17	36	189	35	46	147	53	882					0
	5:45 PM	13	176	35	40	136	22	34	185	27	42	126	56	890					0
	VOLUMES	244	1,313	269	339	1,053	186	293	1,664	262	358	1,152	351	7,482	0	0	0	0	0
	APPROACH %	13%	72%	15%	21%	67%	12%	13%	75%	12%	19%	62%	19%						
	APP/DEPART	1,826	/	1,956	1,578	/	1,672	2,218	/	2,272	1,860	/	1,582	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	129	674	145	162	543	97	147	876	125	186	587	173	3,841					
APPROACH %	14%	71%	15%	20%	68%	12%	13%	76%	11%	20%	62%	18%							
PEAK HR FACTOR	0.899			0.900			0.933			0.928			0.974						
APP/DEPART	948	/	994	801	/	854	1,148	/	1,182	945	/	812	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 13 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

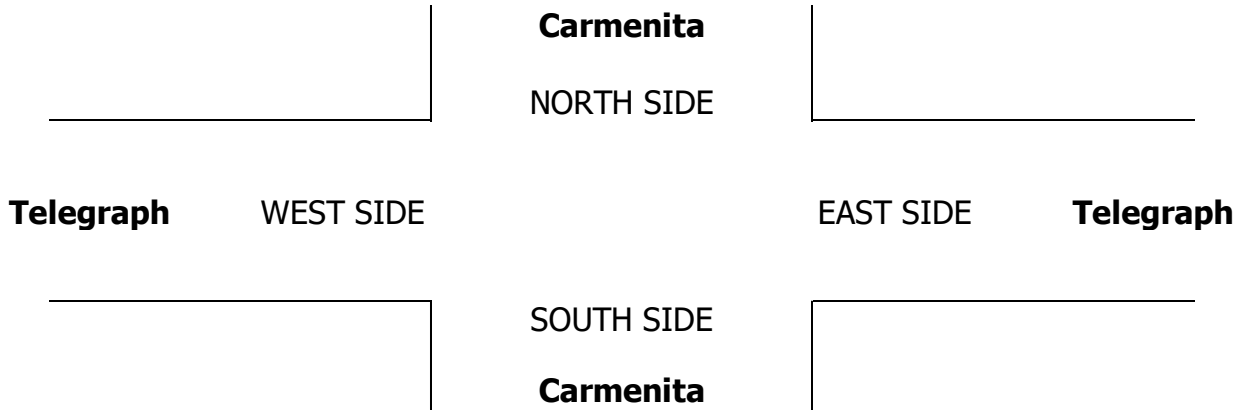
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	21	58	9	19	89	18	6	60	8	11	139	21	459
	7:15 AM	19	59	15	26	97	15	9	62	14	17	190	28	551
	7:30 AM	22	94	18	23	95	11	7	78	10	20	167	25	570
	7:45 AM	29	88	21	35	88	13	13	94	22	23	247	38	711
	8:00 AM	28	108	17	30	92	20	11	90	19	17	188	26	646
	8:15 AM	36	93	14	25	104	15	13	84	17	23	147	35	606
	8:30 AM	20	91	26	16	71	12	26	57	10	21	115	19	484
	8:45 AM	27	100	21	26	66	20	22	61	22	30	148	40	583
	VOLUMES	202	691	141	200	702	124	107	586	122	162	1,341	232	4,610
	APPROACH %	20%	67%	14%	19%	68%	12%	13%	72%	15%	9%	77%	13%	
	APP/DEPART	1,034	/	1,026	1,026	/	980	815	/	932	1,735	/	1,672	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	113	383	70	111	379	59	42	346	68	80	749	124	2,533
	APPROACH %	20%	67%	12%	20%	69%	11%	9%	76%	15%	8%	78%	13%	
PM	PEAK HR FACTOR	0.928			0.957			0.888			0.776			0.891
	APP/DEPART	568	/	551	551	/	529	458	/	530	956	/	923	0
	04:00 PM	30	122	35	51	126	26	36	214	43	41	135	29	888
	4:15 PM	28	137	30	41	130	30	33	184	28	44	126	42	853
	4:30 PM	24	126	41	36	122	13	37	219	27	44	126	43	858
	4:45 PM	25	167	32	33	118	16	34	201	26	43	149	47	891
	5:00 PM	33	180	30	44	136	27	37	206	28	40	129	30	920
	5:15 PM	28	159	29	53	116	23	35	178	26	41	141	38	867
	5:30 PM	28	152	19	29	109	17	36	179	30	44	141	51	835
	5:45 PM	13	165	35	40	127	22	32	180	22	40	121	48	845
	VOLUMES	209	1,208	251	327	984	174	280	1,561	230	337	1,068	328	6,957
	APPROACH %	13%	72%	15%	22%	66%	12%	14%	75%	11%	19%	62%	19%	
	APP/DEPART	1,668	/	1,802	1,485	/	1,538	2,071	/	2,156	1,733	/	1,461	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	105	610	133	150	506	86	134	810	109	155	530	162	3,522
	APPROACH %	12%	72%	16%	20%	68%	12%	13%	76%	10%	18%	61%	19%	
	PEAK HR FACTOR	0.878			0.901			0.936			0.903			0.957
	APP/DEPART	853	/	910	746	/	775	1,060	/	1,109	863	/	728	0

0	0	0	0	0
0	0	0	0	0
1	0	0	2	3
0	1	2	0	3
1	0	0	0	1
0	1	0	1	2
0	0	3	2	5
0	1	2	3	6
2	3	7	8	20

3	1	4	2	10
1	0	0	6	7
3	1	3	3	10
0	2	4	3	9
1	1	0	4	6
1	0	4	2	7
0	0	4	3	7
1	1	1	0	3
10	6	20	23	59



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
13  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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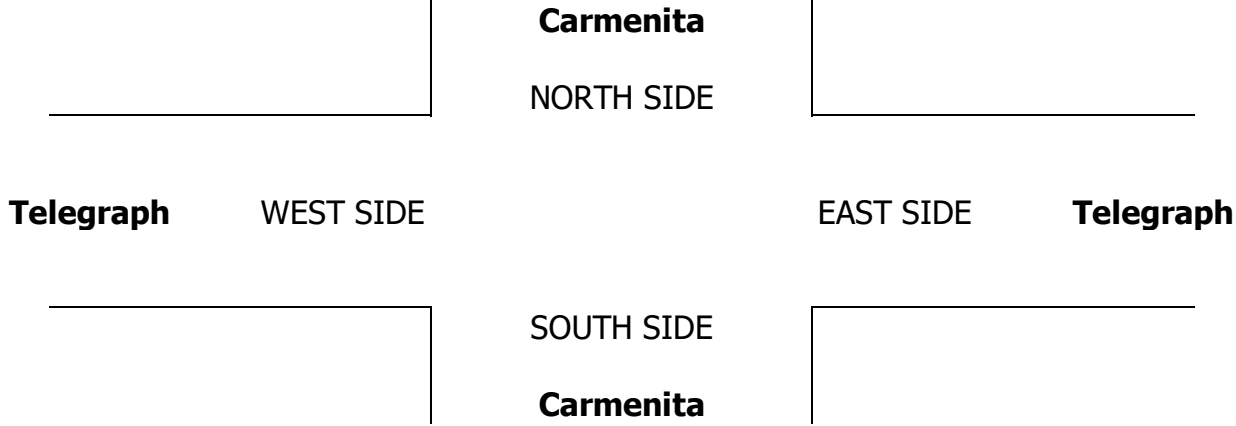
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	5	5	0	0	6	3	0	11	1	1	10	1	43
	7:15 AM	3	12	1	1	11	0	0	6	1	3	10	2	50
	7:30 AM	3	5	0	2	6	0	3	7	0	2	8	1	37
	7:45 AM	0	10	2	4	2	0	0	10	3	1	5	2	39
	8:00 AM	6	10	0	1	5	2	3	5	7	3	13	4	59
	8:15 AM	3	9	2	1	4	0	0	8	3	1	10	0	41
	8:30 AM	2	3	0	3	7	0	0	9	2	0	6	2	34
	8:45 AM	6	4	1	2	13	2	0	9	3	1	6	3	50
	VOLUMES	28	58	6	14	54	7	6	65	20	12	68	15	353
	APPROACH %	30%	63%	7%	19%	72%	9%	7%	71%	22%	13%	72%	16%	
	APP/DEPART	92	/	77	75	/	85	91	/	86	95	/	105	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	12	34	4	8	17	2	4	30	13	7	36	7	176
	APPROACH %	24%	68%	8%	30%	63%	7%	8%	61%	27%	14%	72%	14%	
	PEAK HR FACTOR	0.781			0.844			0.817			0.625			0.746
	APP/DEPART	50	/	45	27	/	37	49	/	42	50	/	52	0
	04:00 PM	2	9	1	2	2	0	1	7	0	2	4	1	31
	4:15 PM	1	8	2	1	9	1	2	13	1	1	5	1	45
	4:30 PM	1	9	1	1	7	0	1	10	2	3	7	3	45
	4:45 PM	1	12	1	0	4	0	0	9	1	1	7	1	37
	5:00 PM	3	7	1	1	2	0	1	9	0	0	6	2	32
	5:15 PM	4	4	0	0	5	1	1	4	2	0	1	1	23
	5:30 PM	2	4	0	1	4	0	0	5	1	1	4	1	23
	5:45 PM	0	7	0	0	6	0	1	3	0	1	2	5	25
	VOLUMES	14	60	6	6	39	2	7	60	7	9	36	15	261
	APPROACH %	18%	75%	8%	13%	83%	4%	9%	81%	9%	15%	60%	25%	
	APP/DEPART	80	/	81	47	/	54	74	/	73	60	/	53	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	6	36	5	3	22	1	3	41	4	5	25	7	159
	APPROACH %	13%	77%	11%	12%	85%	4%	6%	84%	8%	14%	68%	19%	
	PEAK HR FACTOR	0.839			0.591			0.766			0.712			0.883
	APP/DEPART	47	/	46	26	/	31	49	/	49	37	/	33	0

0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	1	3

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	1	1	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Telegraph	PROJECT #: LOCATION #: CONTROL:	SC2721 13 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

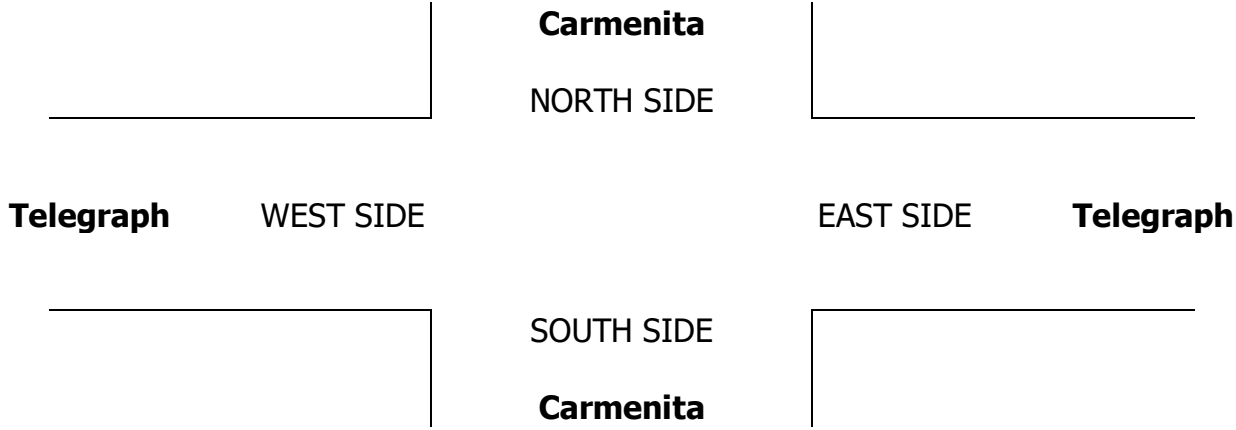
	NORTHBOUND Carmenita			SOUTHBOUND Carmenita			EASTBOUND Telegraph			WESTBOUND Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

AM	7:00 AM	0	1	0	0	1	0	0	1	1	0	1	1	6
	7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	1	0	0	2	0	0	3
	7:45 AM	1	2	0	0	1	0	2	1	0	3	0	0	10
	8:00 AM	0	0	0	1	1	0	2	0	0	0	0	0	4
	8:15 AM	1	1	0	1	1	1	1	1	0	2	0	0	10
	8:30 AM	0	0	0	0	1	0	2	0	0	0	0	0	3
	8:45 AM	3	0	1	0	0	1	1	2	0	0	0	0	8
	VOLUMES	5	5	1	2	5	2	1	10	5	0	8	1	45
	APPROACH %	45%	45%	9%	22%	56%	22%	6%	63%	31%	0%	89%	11%	
	APP/DEPART	11	/	7	9	/	10	16	/	13	9	/	15	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	2	3	0	2	3	1	1	6	2	0	7	0	27
	APPROACH %	40%	60%	0%	33%	50%	17%	11%	67%	22%	0%	100%	0%	
	PEAK HR FACTOR	0.417			0.500			0.750			0.583			0.675
	APP/DEPART	5	/	4	6	/	5	9	/	8	7	/	10	0
	04:00 PM	2	1	0	0	1	0	1	0	0	0	1	0	6
	4:15 PM	1	0	0	0	1	0	0	0	0	0	2	0	4
	4:30 PM	1	0	1	0	0	0	0	0	0	1	2	0	5
	4:45 PM	0	0	0	0	0	0	0	1	1	0	1	0	3
	5:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	2	0	0	1	0	0	0	0	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	4	2	1	0	4	0	1	3	1	1	8	0	25
	APPROACH %	57%	29%	14%	0%	100%	0%	20%	60%	20%	11%	89%	0%	
	APP/DEPART	7	/	3	4	/	6	5	/	4	9	/	12	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	2	1	1	0	1	0	0	1	1	1	6	0	14
	APPROACH %	50%	25%	25%	0%	100%	0%	0%	50%	50%	14%	86%	0%	
	PEAK HR FACTOR	0.500			0.250			0.250			0.583			0.700
	APP/DEPART	4	/	1	1	/	3	2	/	2	7	/	8	0

U-TURNS				
NB	SB	EB	WB	TTL

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
13  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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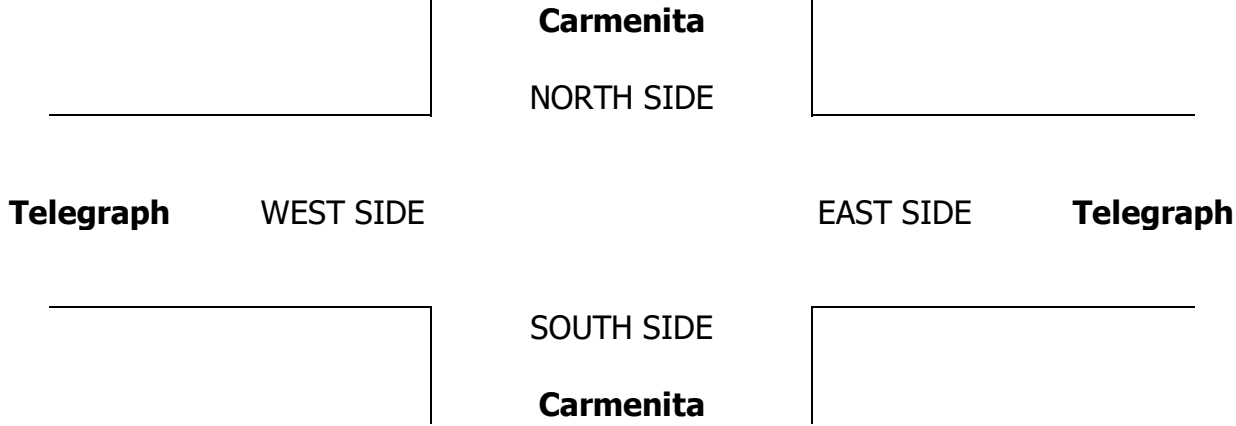
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	1	0	0	0	0	0	1	0	3
	7:15 AM	0	1	0	0	0	0	0	0	1	1	0	3
	7:30 AM	2	0	0	0	1	0	0	1	1	1	1	7
	7:45 AM	0	1	1	1	1	1	1	0	1	1	1	10
	8:00 AM	0	2	0	1	0	0	1	1	0	0	0	5
	8:15 AM	1	0	0	0	0	0	0	2	0	0	0	3
	8:30 AM	0	0	0	0	0	0	2	0	0	3	0	6
	8:45 AM	1	2	0	0	1	0	0	1	0	0	1	7
	VOLUMES	4	7	1	3	3	2	4	5	3	7	3	44
	APPROACH %	33%	58%	8%	38%	38%	25%	18%	36%	45%	23%	54%	23%
	APP/DEPART	12	/	12	8	/	11	11	/	8	13	/	13
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	3	3	1	2	2	1	1	2	4	2	2	2
PM	APPROACH %	43%	43%	14%	40%	40%	20%	14%	29%	57%	33%	33%	33%
	PEAK HR FACTOR	0.875			0.417			0.875			0.500		
	APP/DEPART	7	/	6	5	/	8	7	/	5	6	/	6
	04:00 PM	0	0	0	0	0	0	0	1	0	0	0	1
	4:15 PM	1	1	0	1	0	0	0	1	0	1	0	5
	4:30 PM	1	1	0	0	0	1	0	0	1	1	0	5
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	2	0	0	0	0	0	2
	5:15 PM	0	0	1	0	0	0	0	1	0	0	1	3
	5:30 PM	0	1	0	0	0	0	0	0	1	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	1	0	0	1
	VOLUMES	2	3	1	1	0	3	0	1	5	1	2	0
	APPROACH %	33%	50%	17%	25%	0%	75%	0%	17%	83%	33%	67%	0%
	APP/DEPART	6	/	3	4	/	6	6	/	3	3	/	7
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	2	2	0	1	0	3	0	0	2	1	1	0
	APPROACH %	50%	50%	0%	25%	0%	75%	0%	0%	100%	50%	50%	0%
	PEAK HR FACTOR	0.500			0.500			0.500			0.500		
	APP/DEPART	4	/	2	4	/	3	2	/	1	2	/	6

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
13  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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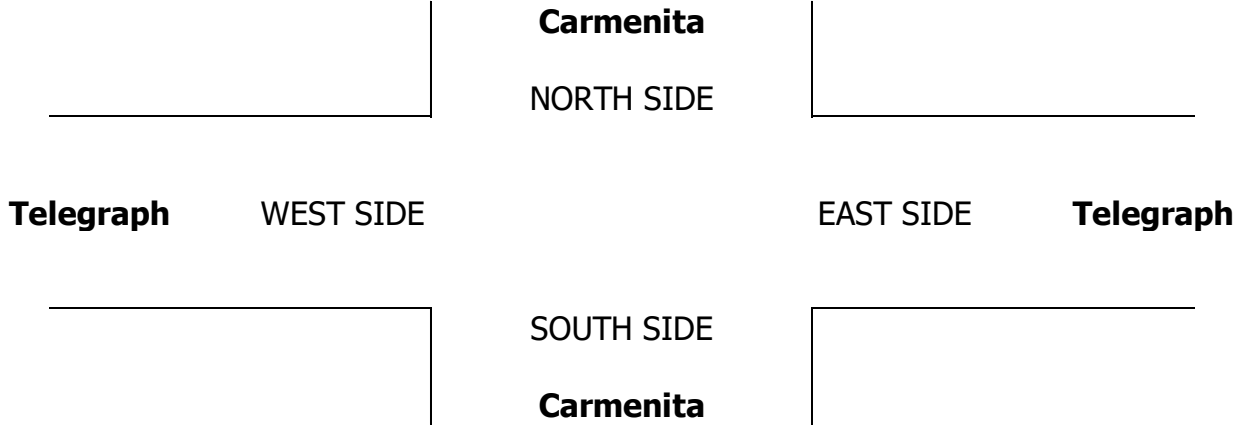
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Telegraph

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
13  
SIGNAL

CLASS 6:

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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BUSES

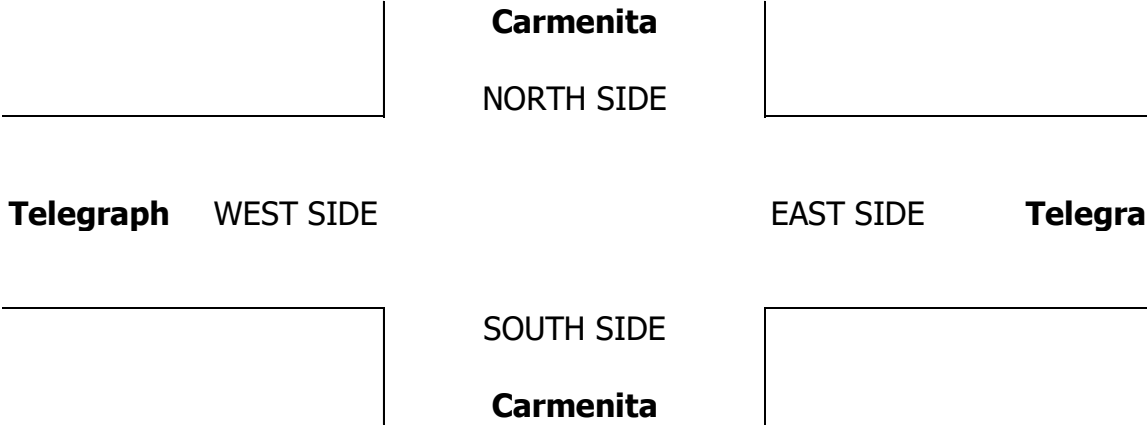
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Telegraph			Telegraph			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	1	0	0	3	1	0	1	0	6
	7:15 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
	7:30 AM	0	1	0	1	3	0	0	1	0	0	1	2	9
	7:45 AM	1	2	0	1	2	1	0	0	1	1	1	0	10
	8:00 AM	1	1	0	1	0	0	0	0	1	0	3	0	7
	8:15 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
	8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
	8:45 AM	0	1	0	0	1	0	0	0	0	0	2	0	4
	VOLUMES	2	6	2	3	7	1	0	6	3	2	10	2	44
	APPROACH %	20%	60%	20%	27%	64%	9%	0%	67%	33%	14%	71%	14%	
	APP/DEPART	10	/	8	11	/	12	9	/	11	14	/	13	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	2	4	1	3	5	1	0	2	2	1	6	2	29
	APPROACH %	29%	57%	14%	33%	56%	11%	0%	50%	50%	11%	67%	22%	
	PEAK HR FACTOR	0.583			0.563			1.000			0.750			0.725
	APP/DEPART	7	/	6	9	/	8	4	/	6	9	/	9	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	1	0	0	0	1	0	1	0	4
	5:15 PM	0	0	1	0	0	0	0	1	0	0	1	0	3
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	VOLUMES	0	1	2	0	1	0	0	2	2	1	4	0	13
	APPROACH %	0%	33%	67%	0%	100%	0%	0%	50%	50%	20%	80%	0%	
	APP/DEPART	3	/	1	1	/	4	4	/	4	5	/	4	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	1	1	0	1	0	0	1	1	1	2	0	8
	APPROACH %	0%	50%	50%	0%	100%	0%	0%	50%	50%	33%	67%	0%	
	PEAK HR FACTOR	0.500			0.250			0.500			0.750			0.500
	APP/DEPART	2	/	1	1	/	3	2	/	2	3	/	2	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr & Day  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
14  
SIGNAL

NOTES:

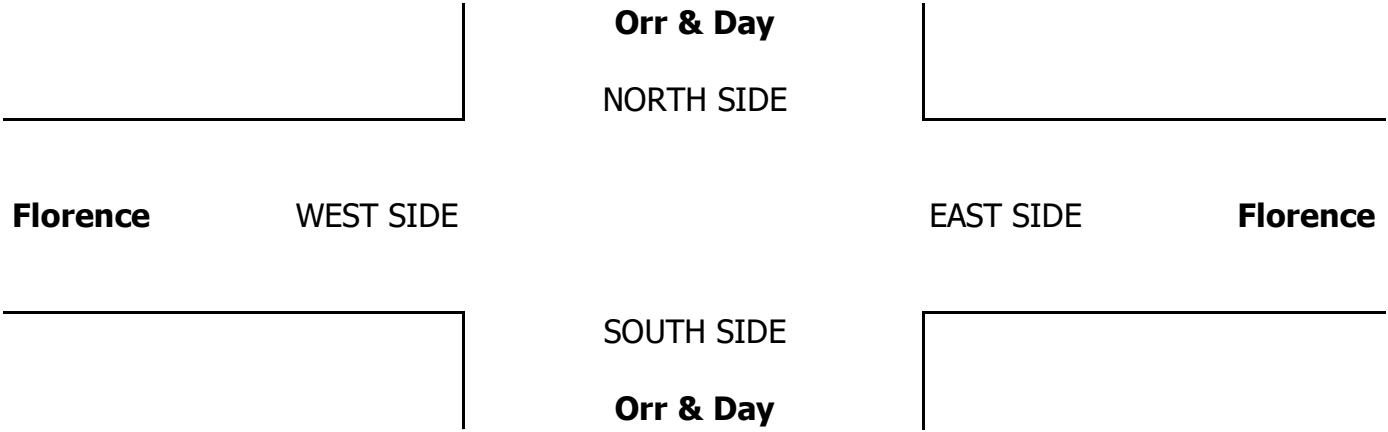
AM  
PM  
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OTHER

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E ▶

☒ Add U-Turns to Left Turns

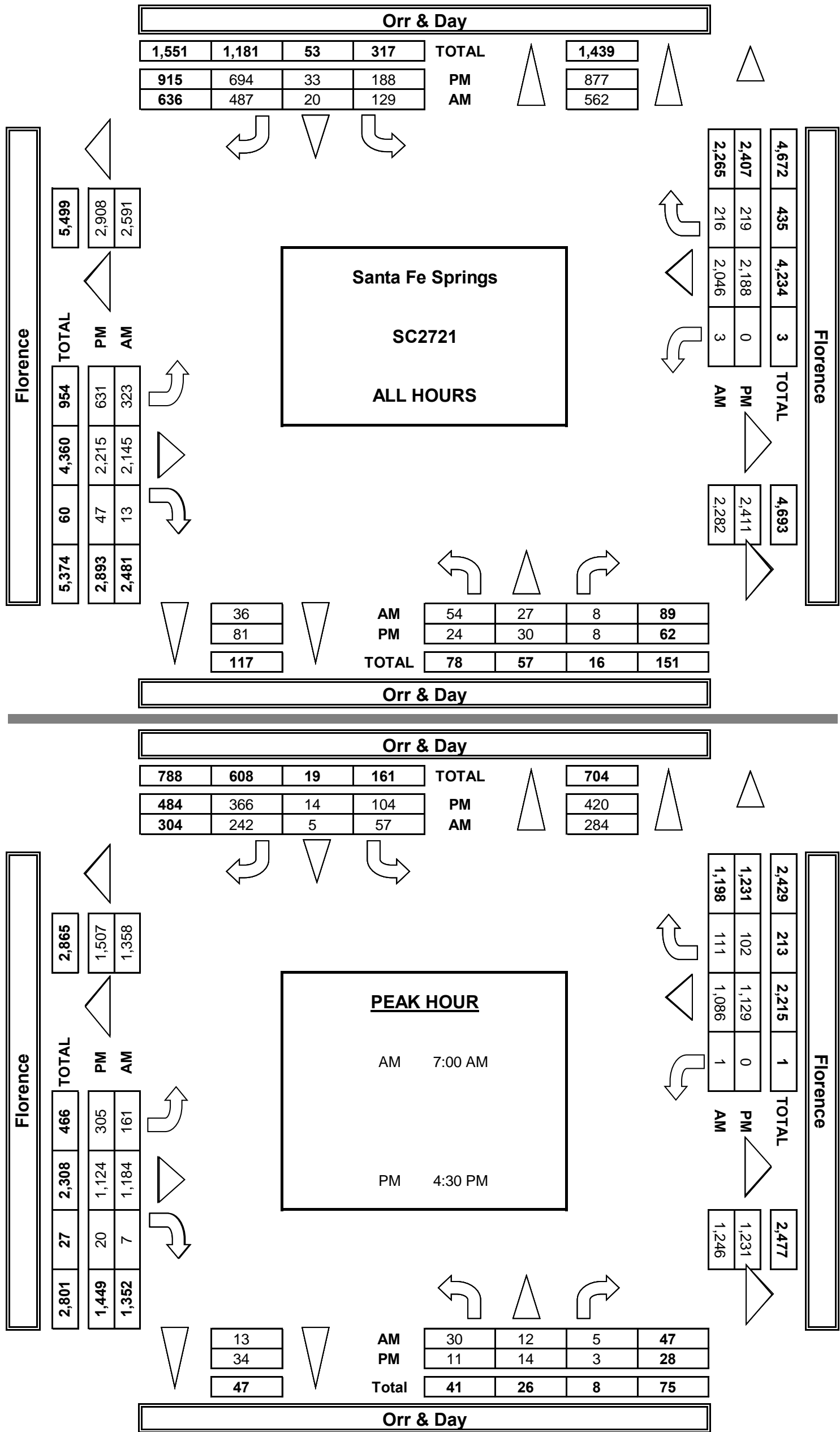
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	U-TURNS				
		Orr & Day			Orr & Day			Florence			Florence				NB	SB	EB	WB	TTL
LANES:		NL 1.5	NT 1.5	NR 0.5	SL 1.5	ST 0.5	SR 2	EL 2	ET 3	ER 0	WL 1	WT 3	WR 0		0	0	0	0	
AM	7:00 AM	9	3	1	9	2	42	18	298	1	0	306	21	710	0	0	0	0	0
	7:15 AM	6	1	0	18	2	51	32	301	2	1	295	28	737	0	0	0	0	0
	7:30 AM	6	5	1	8	0	75	50	285	2	0	229	29	690	0	0	0	0	0
	7:45 AM	9	3	3	22	1	74	61	300	2	0	256	33	764	0	0	0	0	0
	8:00 AM	3	5	1	19	5	74	51	247	1	2	239	40	687	0	0	1	0	1
	8:15 AM	5	3	2	26	4	74	51	248	2	0	266	29	710	0	0	1	0	1
	8:30 AM	12	4	0	10	4	47	35	254	2	0	217	16	601	0	0	1	0	1
	8:45 AM	4	3	0	17	2	50	25	212	1	0	238	20	572	0	0	1	0	1
	VOLUMES	54	27	8	129	20	487	323	2,145	13	3	2,046	216	5,471	0	0	4	0	4
	APPROACH %	61%	30%	9%	20%	3%	77%	13%	86%	1%	0%	90%	10%						
	APP/DEPART	89	/	562	636	/	36	2,481	/	2,282	2,265	/	2,591	0					
	BEGIN PEAK HR	7:00 AM																	
VOLUMES	30	12	5	57	5	242	161	1,184	7	1	1,086	111	2,901						
APPROACH %	64%	26%	11%	19%	2%	80%	12%	88%	1%	0%	91%	9%							
PEAK HR FACTOR	0.783			0.784			0.931			0.916			0.949						
APP/DEPART	47	/	284	304	/	13	1,352	/	1,246	1,198	/	1,358	0						
PM	04:00 PM	5	6	2	21	7	75	67	256	3	0	271	32	745	0	0	0	0	0
	4:15 PM	1	2	0	18	1	80	83	292	6	0	291	29	803	0	0	0	0	0
	4:30 PM	3	5	1	22	3	87	77	292	5	0	307	30	832	0	0	1	0	1
	4:45 PM	2	5	0	30	2	108	73	291	7	0	263	22	803	0	0	0	0	0
	5:00 PM	1	2	1	21	5	77	72	256	4	0	286	21	746	0	0	0	0	0
	5:15 PM	5	2	1	31	4	94	83	285	4	0	273	29	811	0	0	0	0	0
	5:30 PM	2	3	2	22	8	85	89	263	12	0	278	26	790	0	0	2	0	2
	5:45 PM	5	5	1	23	3	88	87	280	6	0	219	30	747	1	0	0	0	1
	VOLUMES	24	30	8	188	33	694	631	2,215	47	0	2,188	219	6,277	1	0	3	0	4
	APPROACH %	39%	48%	13%	21%	4%	76%	22%	77%	2%	0%	91%	9%						
	APP/DEPART	62	/	877	915	/	81	2,893	/	2,411	2,407	/	2,908	0					
	BEGIN PEAK HR	4:30 PM																	
VOLUMES	11	14	3	104	14	366	305	1,124	20	0	1,129	102	3,192						
APPROACH %	39%	50%	11%	21%	3%	76%	21%	78%	1%	0%	92%	8%							
PEAK HR FACTOR	0.778			0.864			0.969			0.913			0.959						
APP/DEPART	28	/	420	484	/	34	1,449	/	1,231	1,231	/	1,507	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	1	1	0	3	0	1	1	0	2	1	0	0	0	1
	7:15 AM	1	0	1	0	2	1	0	1	0	2	0	0	0	0	0
	7:30 AM	0	3	2	0	5	0	2	2	0	4	0	1	0	0	1
	7:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	2	6	0	8	0	0	3	0	3	0	2	3	0	5
	8:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:45 AM	0	1	1	0	2	0	1	0	0	1	0	0	1	0	1
TOTAL		2	8	11	1	22	1	5	7	1	14	1	3	4	0	8
PM	4:00 PM	0	1	2	0	3	0	1	2	0	3	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:45 PM	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0
	5:00 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	5:15 PM	0	3	0	0	3	0	2	0	0	2	0	1	0	0	1
	5:30 PM	0	2	2	0	4	0	1	2	0	3	0	1	0	0	1
	5:45 PM	1	2	1	0	4	0	1	0	0	1	1	1	1	0	3
TOTAL		1	9	9	1	20	0	6	8	1	15	1	3	1	0	5



AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Orr & Day Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 14 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Orr & Day			Orr & Day			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 1.5	NT 1.5	NR 0.5	SL 1.5	ST 0.5	SR 2	EL 2	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	13	3	1	10	2	42	19	321	2	0	340	23	775					0
	7:15 AM	6	1	0	19	2	52	33	326	2	1	327	29	797					0
	7:30 AM	7	5	1	9	0	82	52	311	2	0	251	30	749					0
	7:45 AM	10	3	4	22	1	75	65	319	3	0	282	34	816					0
	8:00 AM	3	5	1	20	5	75	54	279	1	3	270	41	756					0
	8:15 AM	6	3	2	29	5	74	53	286	3	0	304	31	793					0
	8:30 AM	18	4	0	10	4	49	36	291	3	0	236	21	670					0
	8:45 AM	4	4	0	18	2	51	25	237	1	0	266	21	628					0
	VOLUMES	66	28	9	136	21	499	335	2,369	16	4	2,273	229	5,982	0	0	0	0	0
	APPROACH %	64%	27%	9%	21%	3%	76%	12%	87%	1%	0%	91%	9%						
	APP/DEPART	103	/	591	655	/	40	2,719	/	2,514	2,505	/	2,837	0					
	BEGIN PEAK HR	7:00 AM																	
	VOLUMES	36	12	6	60	5	250	168	1,277	9	1	1,198	116	3,136					
	APPROACH %	66%	22%	11%	19%	2%	79%	12%	88%	1%	0%	91%	9%						
	PEAK HR FACTOR	0.787			0.808			0.941			0.908			0.961					
PM	APP/DEPART	54	/	295	315	/	15	1,453	/	1,343	1,315	/	1,484	0					
	04:00 PM	5	6	3	22	7	76	68	287	4	0	288	34	798					0
	4:15 PM	1	2	0	19	1	82	84	318	6	0	311	31	854					0
	4:30 PM	3	5	1	23	3	89	78	311	5	0	324	32	873					0
	4:45 PM	2	5	0	30	2	109	74	317	7	0	278	25	848					0
	5:00 PM	1	2	1	22	5	79	73	271	4	0	300	22	779					0
	5:15 PM	6	2	1	33	4	94	85	305	4	0	290	30	852					0
	5:30 PM	2	3	2	22	8	87	91	275	12	0	290	29	821					0
	5:45 PM	5	5	1	24	3	89	88	301	6	0	224	32	776					0
	VOLUMES	25	30	9	195	33	704	640	2,383	48	0	2,304	232	6,600	0	0	0	0	0
	APPROACH %	39%	47%	14%	21%	4%	76%	21%	78%	2%	0%	91%	9%						
	APP/DEPART	64	/	902	931	/	81	3,070	/	2,586	2,536	/	3,032	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	12	14	3	108	14	370	309	1,203	20	0	1,192	108	3,351					
	APPROACH %	40%	49%	11%	22%	3%	75%	20%	79%	1%	0%	92%	8%						
	PEAK HR FACTOR	0.792			0.872			0.963			0.914			0.960					
	APP/DEPART	29	/	431	492	/	34	1,532	/	1,314	1,299	/	1,573	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Orr & Day Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 14 SIGNAL
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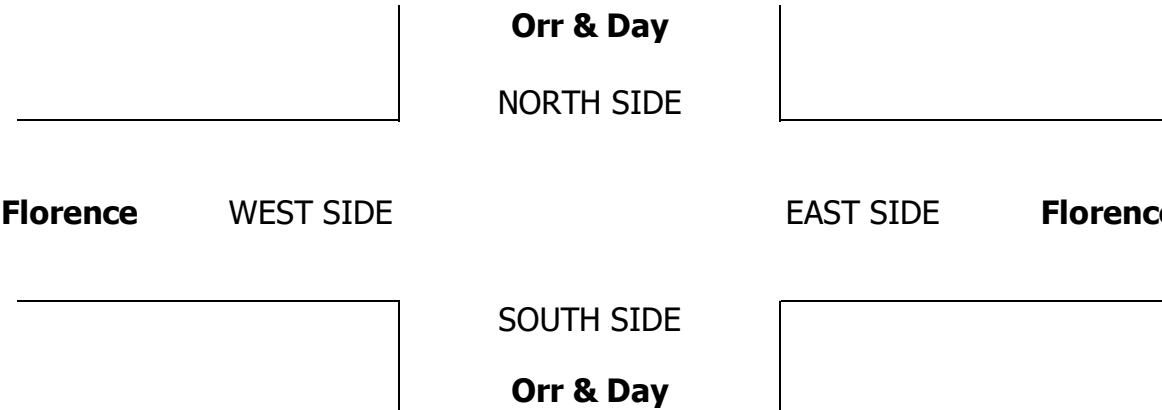
CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Orr & Day			Orr & Day			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 1.5	NT 1.5	NR 0.5	SL 1.5	ST 0.5	SR 2	EL 2	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	7	3	1	8	2	42	16	276	0	0	267	19	641
	7:15 AM	6	1	0	17	2	49	31	277	2	1	258	27	671
	7:30 AM	5	5	1	7	0	62	47	263	2	0	206	28	626
	7:45 AM	8	3	1	22	1	73	55	280	1	0	229	32	705
	8:00 AM	3	5	1	18	5	72	46	215	1	1	208	38	613
	8:15 AM	3	3	2	23	3	74	48	213	1	0	232	27	629
	8:30 AM	7	4	0	10	4	44	33	217	0	0	193	11	523
	8:45 AM	4	2	0	16	2	49	25	191	1	0	211	19	520
	VOLUMES	43	26	6	121	19	465	301	1,932	8	2	1,804	201	4,928
	APPROACH %	57%	35%	8%	20%	3%	77%	13%	86%	0%	0%	90%	10%	
	APP/DEPART	75	/	525	605	/	29	2,241	/	2,059	2,007	/	2,315	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	26	12	3	54	5	226	149	1,096	5	1	960	106	2,643
	APPROACH %	63%	29%	7%	19%	2%	79%	12%	88%	0%	0%	90%	10%	
	PEAK HR FACTOR	0.854			0.742			0.930			0.933			0.937
	APP/DEPART	41	/	267	285	/	11	1,250	/	1,153	1,067	/	1,212	0
PM	04:00 PM	5	6	1	20	7	73	66	230	2	0	254	29	693
	4:15 PM	1	2	0	17	1	77	81	268	6	0	270	27	750
	4:30 PM	3	5	1	21	3	84	75	275	5	0	293	28	793
	4:45 PM	2	5	0	30	2	106	71	266	7	0	252	20	761
	5:00 PM	1	2	1	20	5	75	71	236	4	0	277	20	712
	5:15 PM	4	2	1	29	4	94	80	265	4	0	262	28	773
	5:30 PM	2	3	2	22	8	81	85	251	12	0	268	23	757
	5:45 PM	5	5	1	22	3	87	85	264	6	0	214	28	720
	VOLUMES	23	30	7	181	33	677	614	2,055	46	0	2,090	203	5,959
	APPROACH %	38%	50%	12%	20%	4%	76%	23%	76%	2%	0%	91%	9%	
	APP/DEPART	60	/	845	891	/	80	2,715	/	2,243	2,293	/	2,791	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	10	14	3	100	14	359	296	1,042	20	0	1,084	96	3,039
	APPROACH %	37%	52%	11%	21%	3%	76%	22%	77%	1%	0%	92%	8%	
	PEAK HR FACTOR	0.750			0.857			0.957			0.919			0.958
	APP/DEPART	27	/	406	473	/	34	1,359	/	1,145	1,180	/	1,454	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	1
0	0	3	0	3

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
1	0	0	0	1
1	0	2	0	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr & Day  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
14  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr & Day			Orr & Day			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1.5	1.5	0.5	1.5	0.5	2	2	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	2	10	0	0	23	1	36
	7:15 AM	0	0	0	0	0	2	1	15	0	0	25	0	43
	7:30 AM	0	0	0	0	0	13	3	10	0	0	11	0	37
	7:45 AM	1	0	2	0	0	1	5	12	1	0	17	0	39
	8:00 AM	0	0	0	0	0	2	5	18	0	1	19	2	47
	8:15 AM	2	0	0	1	1	0	3	17	1	0	15	0	40
	8:30 AM	3	0	0	0	0	2	2	23	2	0	19	1	52
	8:45 AM	0	1	0	1	0	1	0	10	0	0	14	0	27
	VOLUMES	6	1	2	2	1	21	21	115	4	1	143	4	321
	APPROACH %	67%	11%	22%	8%	4%	88%	15%	82%	3%	1%	97%	3%	
	APP/DEPART	9	/	25	24	/	6	140	/	119	148	/	171	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	1	0	2	0	0	16	11	47	1	0	76	1	155
	APPROACH %	33%	0%	67%	0%	0%	100%	19%	80%	2%	0%	99%	1%	
	PEAK HR FACTOR	0.250			0.308			0.819			0.770			0.901
	APP/DEPART	3	/	12	16	/	1	59	/	49	77	/	93	0
PM	04:00 PM	0	0	0	1	0	2	1	12	1	0	7	2	26
	4:15 PM	0	0	0	0	0	2	2	13	0	0	12	1	30
	4:30 PM	0	0	0	0	0	3	2	9	0	0	6	1	21
	4:45 PM	0	0	0	0	0	2	2	15	0	0	2	1	22
	5:00 PM	0	0	0	0	0	1	1	14	0	0	2	0	18
	5:15 PM	1	0	0	0	0	0	3	11	0	0	3	1	19
	5:30 PM	0	0	0	0	0	4	4	8	0	0	4	1	21
	5:45 PM	0	0	0	0	0	1	2	7	0	0	3	1	14
	VOLUMES	1	0	0	1	0	15	17	89	1	0	39	8	171
	APPROACH %	100%	0%	0%	6%	0%	94%	16%	83%	1%	0%	83%	17%	
	APP/DEPART	1	/	24	16	/	1	107	/	90	47	/	56	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	0	0	0	0	6	8	49	0	0	13	3	80
	APPROACH %	100%	0%	0%	0%	0%	100%	14%	86%	0%	0%	81%	19%	
	PEAK HR FACTOR	0.250			0.500			0.838			0.571			0.909
	APP/DEPART	1	/	11	6	/	0	57	/	49	16	/	20	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1

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0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1

Orr & Day

NORTH SIDE

Florence

WEST SIDE

SOUTH SIDE

Orr & Day

EAST SIDE

Florence

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr & Day  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
14  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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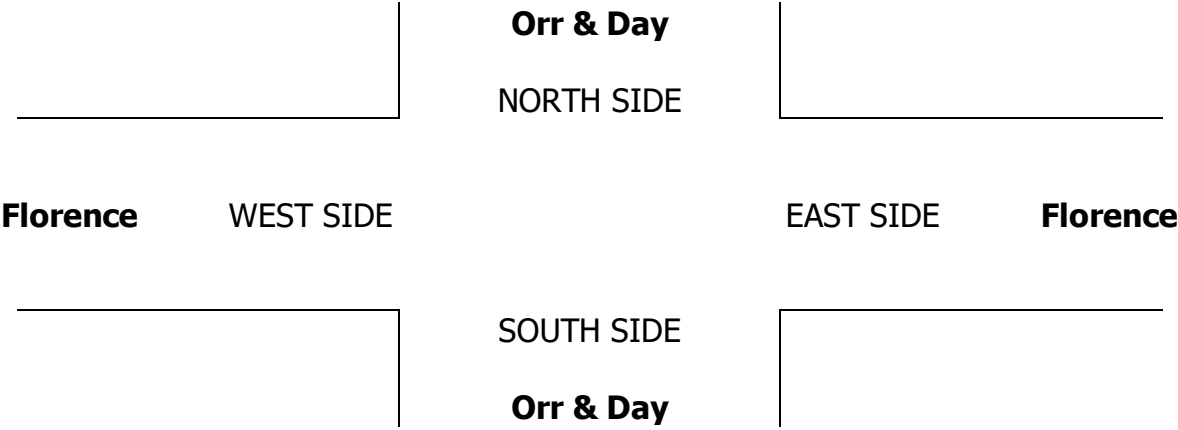
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr & Day			Orr & Day			Florence			Florence			
LANES:	NL 1.5	NT 1.5	NR 0.5	SL 1.5	ST 0.5	SR 2	EL 2	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	5	1	0	8	1	15					
	7:15 AM	0	0	0	0	0	0	1	0	0	5	0	6					
	7:30 AM	1	0	0	0	0	0	2	0	0	6	0	9					
	7:45 AM	0	0	0	0	0	0	2	0	0	2	0	4					
	8:00 AM	0	0	0	0	0	0	4	0	0	2	0	6					
	8:15 AM	0	0	0	0	0	0	5	0	0	7	0	12					
	8:30 AM	0	0	0	0	0	1	0	3	0	1	3	8					
	8:45 AM	0	0	0	0	0	0	0	2	0	0	5	0	7				
	VOLUMES	1	0	0	0	0	1	0	24	1	0	36	4	67				
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	96%	4%	0%	90%	10%					
APP/DEPART	1	/		4	1	/		1	25	/		24	40	/		38	0	
BEGIN PEAK HR	7:00 AM																	
VOLUMES	1	0	0	0	0	0	0	10	1	0	21	1	34					
APPROACH %	100%	0%	0%	0%	0%	0%	0%	91%	9%	0%	95%	5%						
PEAK HR FACTOR	0.250			0.000			0.458			0.611			0.567					
APP/DEPART	1	/		1	0	/		1	11	/		10	22	/		22	0	
PM	04:00 PM	0	0	1	0	0	0	0	3	0	0	7	0	11				
	4:15 PM	0	0	0	0	0	1	0	2	0	0	3	0	6				
	4:30 PM	0	0	0	0	0	0	0	2	0	0	2	0	4				
	4:45 PM	0	0	0	0	0	0	0	2	0	0	4	0	6				
	5:00 PM	0	0	0	0	0	1	0	4	0	0	1	0	6				
	5:15 PM	0	0	0	0	0	0	0	3	0	0	1	0	4				
	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1				
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2				
	VOLUMES	0	0	1	0	0	2	0	17	0	0	20	0	40				
	APPROACH %	0%	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%					
	APP/DEPART	1	/		0	2	/		0	17	/		18	20	/		22	0
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	0	0	0	0	1	0	11	0	0	8	0	20				
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%					
PEAK HR FACTOR	0.000			0.250			0.688			0.500			0.833					
APP/DEPART	0	/		0	1	/		0	11	/		11	8	/		9	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr & Day  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
14  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
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OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr & Day			Orr & Day			Florence			Florence			
LANES:	NL 1.5	NT 1.5	NR 0.5	SL 1.5	ST 0.5	SR 2	EL 2	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	0	0	0	0	0	6	0	0	6	0	14	
	7:15 AM	0	0	0	0	0	0	8	0	0	7	0	15	
	7:30 AM	0	0	0	0	0	0	9	0	0	4	0	13	
	7:45 AM	0	0	0	0	0	0	5	0	0	7	0	12	
	8:00 AM	0	0	0	0	0	0	9	0	0	9	0	18	
	8:15 AM	0	0	0	0	0	0	11	0	0	11	0	22	
	8:30 AM	2	0	0	0	0	0	11	0	0	4	0	17	
	8:45 AM	0	0	0	0	0	0	9	0	0	8	0	17	
	VOLUMES	4	0	0	0	0	0	68	0	0	56	0	128	
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	4	/	0	0	/	0	68	/	68	56	/	60	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	2	0	0	0	0	0	0	28	0	0	24	0	54	
APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%		
PEAK HR FACTOR	0.250			0.000			0.778			0.857			0.900	
APP/DEPART	2	/	0	0	/	0	28	/	28	24	/	26	0	
PM	04:00 PM	0	0	0	0	0	0	11	0	0	3	0	14	
	4:15 PM	0	0	0	0	0	0	8	0	0	5	0	13	
	4:30 PM	0	0	0	0	0	0	6	0	0	6	0	12	
	4:45 PM	0	0	0	0	0	0	8	0	0	5	1	14	
	5:00 PM	0	0	0	0	0	0	2	0	0	6	0	8	
	5:15 PM	0	0	0	0	0	0	5	0	0	7	0	12	
	5:30 PM	0	0	0	0	0	0	4	0	0	4	0	8	
	5:45 PM	0	0	0	0	0	0	8	0	0	1	0	9	
	VOLUMES	0	0	0	0	0	0	52	0	0	37	1	90	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	97%	3%	
	APP/DEPART	0	/	1	0	/	0	52	/	52	38	/	37	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	0	0	0	0	21	0	0	24	1	46
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	96%	4%	
PEAK HR FACTOR	0.000			0.000			0.656			0.893			0.821	
APP/DEPART	0	/	1	0	/	0	21	/	21	25	/	24	0	

0	0	0	0	0
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Orr & Day

NORTH SIDE

Florence

WEST SIDE

EAST SIDE

Florence

SOUTH SIDE

Orr & Day

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr & Day  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
14  
SIGNAL

CLASS 5:

RV

NOTES:

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OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr & Day			Orr & Day			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1.5	1.5	0.5	1.5	0.5	2	2	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0
	BEGIN PEAK HR	7:00 AM											
PM	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.250			0.000		
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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Orr & Day

NORTH SIDE

Florence

WEST SIDE

SOUTH SIDE

Orr & Day

EAST SIDE

Florence



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Orr & Day  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
14  
SIGNAL

CLASS 6:

NOTES:

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OTHER

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BUSES

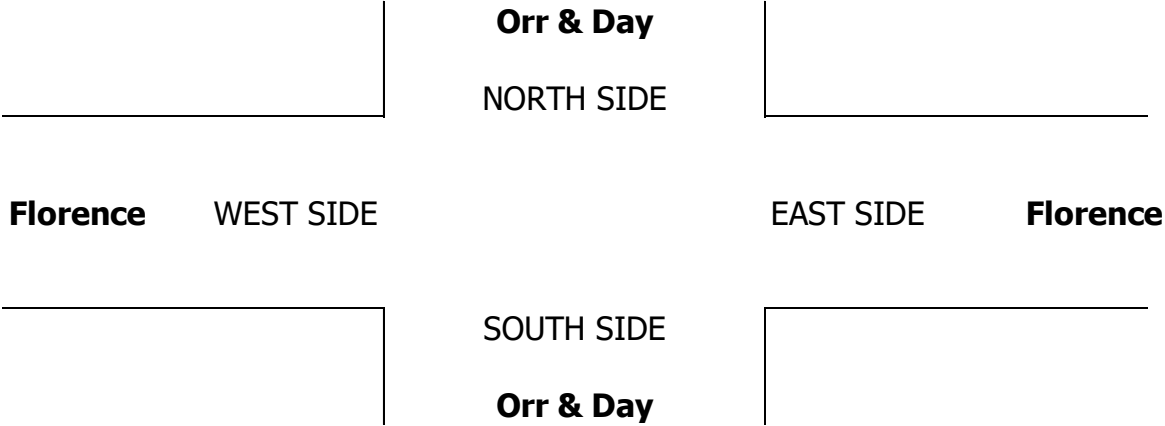
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Orr & Day			Orr & Day			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1.5	1.5	0.5	1.5	0.5	2	2	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	1	0	0	0	0	0	2	0	3					
	7:15 AM	0	0	0	1	0	0	0	0	0	0	1	2					
	7:30 AM	0	0	0	1	0	0	0	1	0	0	2	1	5				
	7:45 AM	0	0	0	0	0	0	1	1	0	0	1	1	4				
	8:00 AM	0	0	0	1	0	0	0	1	0	0	1	0	3				
	8:15 AM	0	0	0	2	0	0	0	2	0	0	1	2	7				
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1				
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1				
	VOLUMES	0	0	0	6	0	0	1	5	0	0	7	7	26				
	APPROACH %	0%	0%	0%	100%	0%	0%	17%	83%	0%	0%	50%	50%					
APP/DEPART	0	/		8	6	/		0	6	/		11	14	/		7	0	
BEGIN PEAK HR	7:00 AM																	
VOLUMES	0	0	0	3	0	0	1	2	0	0	5	3	14					
APPROACH %	0%	0%	0%	100%	0%	0%	33%	67%	0%	0%	63%	38%						
PEAK HR FACTOR	0.000			0.750			0.375			0.667			0.700					
APP/DEPART	0	/		4	3	/		0	3	/		5	8	/		5	0	
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1					
	4:15 PM	0	0	0	1	0	0	0	1	0	0	1	1	4				
	4:30 PM	0	0	0	1	0	0	0	0	0	0	1	2					
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0					
	5:00 PM	0	0	0	1	0	0	0	0	0	0	1	2					
	5:15 PM	0	0	0	2	0	0	0	1	0	0	0	3					
	5:30 PM	0	0	0	0	0	0	0	0	0	1	2	3					
	5:45 PM	0	0	0	1	0	0	0	0	0	0	1	2					
	VOLUMES	0	0	0	6	0	0	0	2	0	0	2	7	17				
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	22%	78%					
	APP/DEPART	0	/		7	6	/		0	2	/		8	9	/		2	0
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	0	0	4	0	0	0	1	0	0	0	2	7				
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%					
PEAK HR FACTOR	0.000			0.500			0.250			0.500			0.583					
APP/DEPART	0	/		2	4	/		0	1	/		5	2	/		0	0	

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
15  
SIGNAL

NOTES:

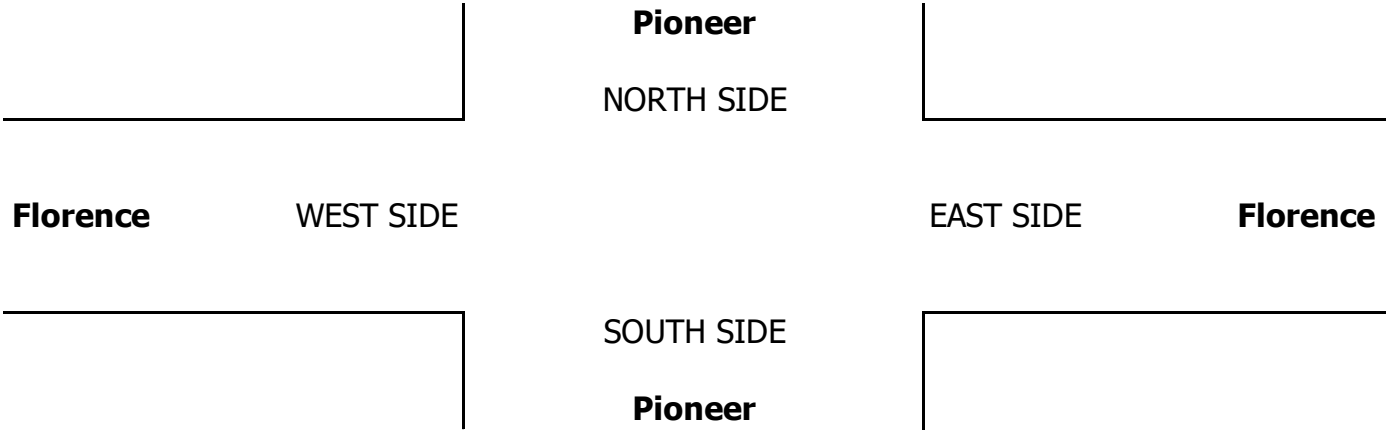
AM  
PM  
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OTHER

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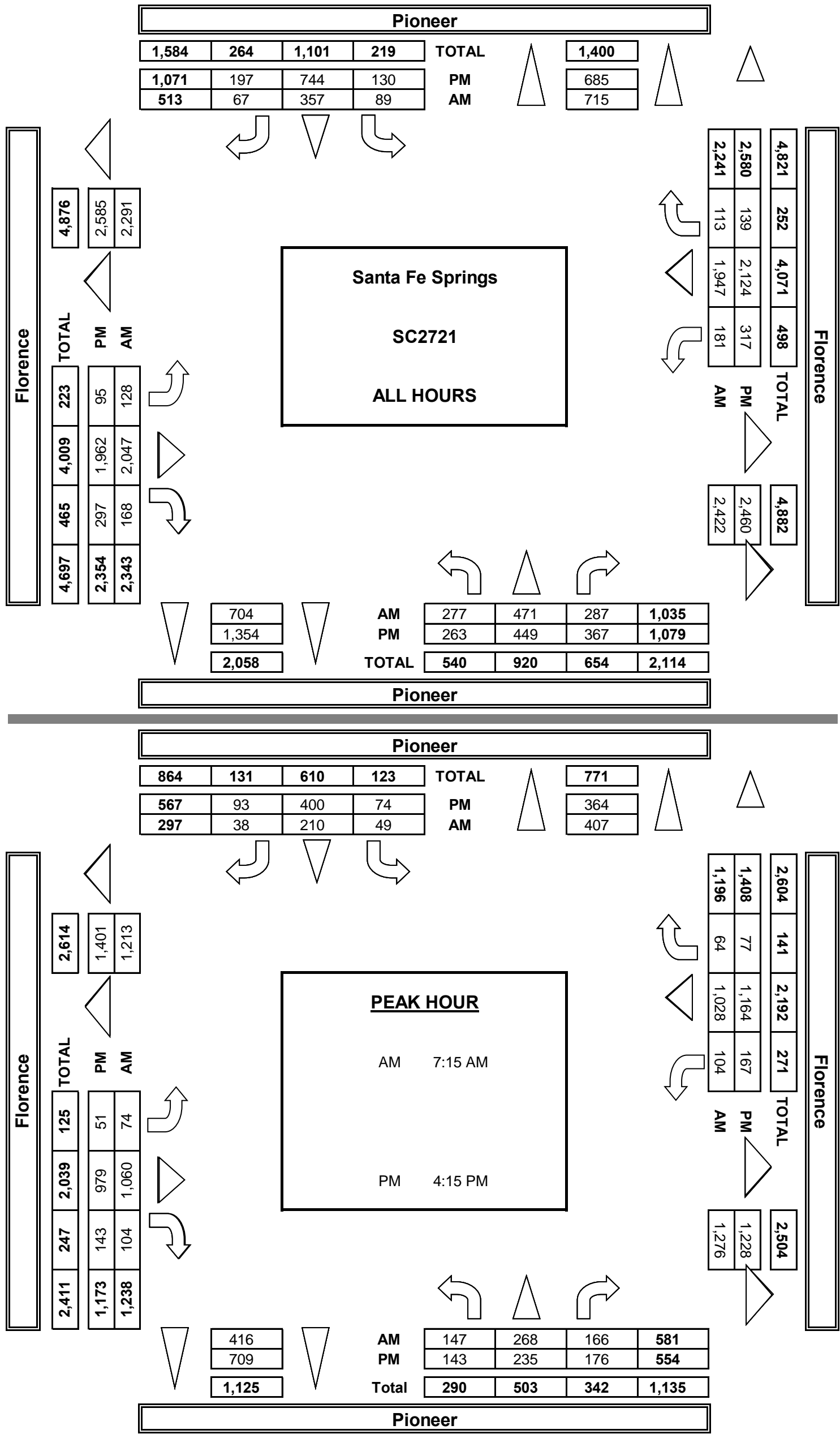
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Pioneer			Pioneer			Florence			Florence								
LANES:		NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	27	41	30	7	29	4	14	287	10	21	262	10	742	0	0	0	0	0
	7:15 AM	30	53	28	12	46	6	19	279	25	29	291	11	829	0	0	0	0	0
	7:30 AM	34	48	42	14	52	13	16	259	18	24	253	14	787	0	0	0	0	0
	7:45 AM	37	104	62	13	68	6	22	287	38	29	225	15	906	0	0	0	0	0
	8:00 AM	46	63	34	10	44	13	17	235	23	22	259	24	790	0	1	0	2	3
	8:15 AM	45	78	30	12	46	9	14	237	20	22	228	13	754	0	2	0	0	2
	8:30 AM	22	45	28	8	39	4	18	239	17	24	221	13	678	0	0	0	0	0
	8:45 AM	36	39	33	13	33	12	8	224	17	10	208	13	646	0	0	0	0	0
	VOLUMES	277	471	287	89	357	67	128	2,047	168	181	1,947	113	6,132	0	3	0	2	5
	APPROACH %	27%	46%	28%	17%	70%	13%	5%	87%	7%	8%	87%	5%						
APP/DEPART	1,035	/	715	513	/	704	2,343	/	2,422	2,241	/	2,291	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	147	268	166	49	210	38	74	1,060	104	104	1,028	64	3,312						
APPROACH %	25%	46%	29%	16%	71%	13%	6%	86%	8%	9%	86%	5%							
PEAK HR FACTOR	0.716			0.853			0.892			0.903			0.914						
APP/DEPART	581	/	407	297	/	416	1,238	/	1,276	1,196	/	1,213	0						
PM	04:00 PM	37	61	45	14	97	28	11	244	36	43	257	15	888	0	0	0	1	1
	4:15 PM	31	62	46	11	80	19	13	242	32	36	271	16	859	0	1	0	0	1
	4:30 PM	51	61	53	20	109	23	13	271	33	44	380	20	1,078	0	1	0	0	1
	4:45 PM	38	52	37	17	94	27	17	247	40	33	248	21	871	0	0	1	0	1
	5:00 PM	23	60	40	26	117	24	8	219	38	54	265	20	894	0	0	0	1	1
	5:15 PM	36	60	51	9	83	21	11	249	42	31	240	23	856	0	0	0	0	0
	5:30 PM	30	46	50	13	89	18	13	231	30	34	238	10	802	0	0	0	1	1
	5:45 PM	17	47	45	20	75	37	9	259	46	42	225	14	836	0	1	0	1	2
	VOLUMES	263	449	367	130	744	197	95	1,962	297	317	2,124	139	7,084	0	3	1	4	8
	APPROACH %	24%	42%	34%	12%	69%	18%	4%	83%	13%	12%	82%	5%						
	APP/DEPART	1,079	/	685	1,071	/	1,354	2,354	/	2,460	2,580	/	2,585	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	143	235	176	74	400	93	51	979	143	167	1,164	77	3,702					
	APPROACH %	26%	42%	32%	13%	71%	16%	4%	83%	12%	12%	83%	5%						
PEAK HR FACTOR	0.839			0.849			0.925			0.793			0.859						
APP/DEPART	554	/	364	567	/	709	1,173	/	1,228	1,408	/	1,401	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	2	2	5	0	1	2	2	5	0	0	0	0	0
	7:15 AM	1	1	1	2	5	1	0	1	1	3	0	1	0	1	2
	7:30 AM	0	0	1	2	3	0	0	1	1	2	0	0	0	1	1
	7:45 AM	0	2	0	1	3	0	1	0	0	1	0	1	0	1	2
	8:00 AM	1	0	1	7	9	1	0	1	7	9	0	0	0	0	0
	8:15 AM	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
	8:30 AM	1	0	1	1	3	0	0	1	1	2	1	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		3	4	7	16	30	2	2	6	12	22	1	2	1	4	8
PM	4:00 PM	0	0	2	3	5	0	0	2	1	3	0	0	0	2	2
	4:15 PM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1
	4:30 PM	1	0	0	1	2	1	0	0	0	1	0	0	0	1	1
	4:45 PM	4	0	2	2	8	4	0	2	2	8	0	0	0	0	0
	5:00 PM	2	0	2	4	8	2	0	1	4	7	0	0	1	0	1
	5:15 PM	1	1	4	4	10	1	0	3	3	7	0	1	1	1	3
	5:30 PM	4	2	0	2	8	2	2	0	2	6	2	0	0	0	2
5:45 PM	1	1	2	2	6	0	1	1	2	4	1	0	1	0	2	
TOTAL		13	6	12	18	49	10	4	9	14	37	3	2	3	4	12

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

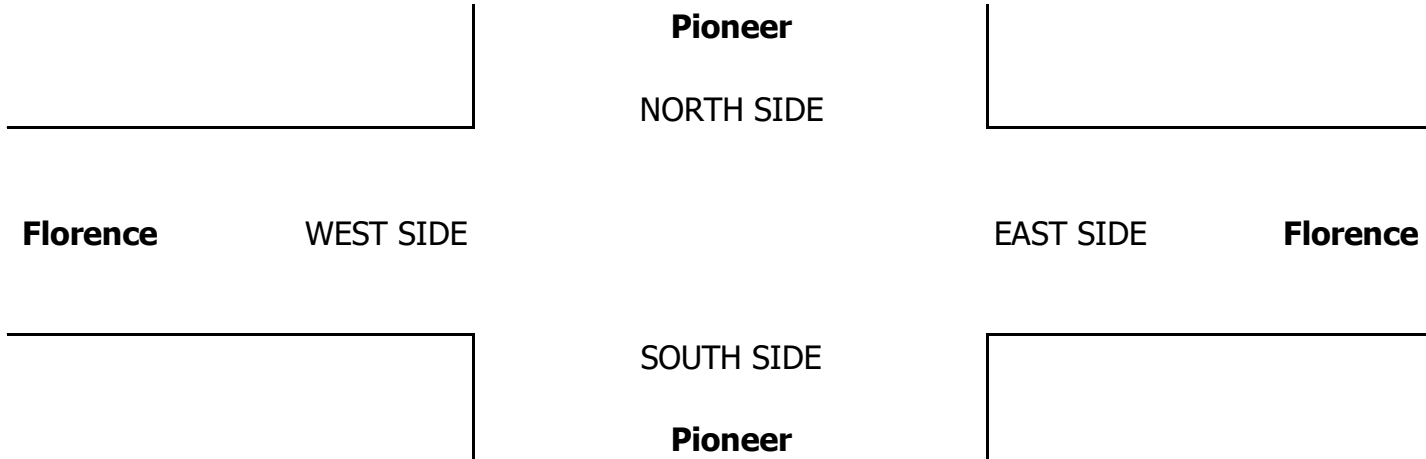
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Pioneer Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 15 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Pioneer			Pioneer			Florence			Florence								
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	28	42	31	7	30	4	15	311	11	23	297	12	808					0
	7:15 AM	32	55	29	13	46	6	19	300	28	30	319	12	887					0
	7:30 AM	35	50	44	14	54	16	16	284	18	25	280	17	852					0
	7:45 AM	38	114	63	13	71	7	23	309	42	33	248	15	973					0
	8:00 AM	47	65	38	10	46	14	18	266	23	25	296	28	873					0
	8:15 AM	49	82	30	13	47	11	14	274	21	24	260	14	838					0
	8:30 AM	23	48	32	10	43	4	19	275	18	25	251	14	759					0
	8:45 AM	36	41	33	13	34	12	9	251	18	12	241	16	715					0
	VOLUMES	287	494	299	92	370	73	131	2,269	178	195	2,191	126	6,703	0	0	0	0	0
	APPROACH %	27%	46%	28%	17%	69%	14%	5%	88%	7%	8%	87%	5%						
	APP/DEPART	1,080	/	751	534	/	743	2,578	/	2,660	2,511	/	2,550	0					
	BEGIN PEAK HR	7:15 AM																	
	VOLUMES	152	282	173	50	217	42	76	1,158	111	112	1,142	71	3,584					
	APPROACH %	25%	46%	29%	16%	70%	14%	6%	86%	8%	8%	86%	5%						
	PEAK HR FACTOR	0.709			0.851			0.901			0.920			0.921					
PM	APP/DEPART	607	/	429	308	/	439	1,344	/	1,381	1,325	/	1,336	0					
	04:00 PM	37	63	46	16	99	29	12	274	36	44	276	18	948					0
	4:15 PM	31	64	46	12	80	20	13	266	35	37	297	16	915					0
	4:30 PM	52	62	59	21	111	25	13	290	33	45	398	20	1,127					0
	4:45 PM	39	54	38	17	98	27	18	274	40	34	267	22	926					0
	5:00 PM	23	63	40	27	120	24	9	237	38	55	282	21	938					0
	5:15 PM	37	60	52	9	84	21	12	269	44	32	256	24	897					0
	5:30 PM	31	47	51	13	91	20	13	242	30	34	244	10	825					0
	5:45 PM	18	49	46	21	76	39	9	281	46	42	236	16	878					0
	VOLUMES	267	460	377	135	757	204	98	2,132	301	320	2,256	147	7,451	0	0	0	0	0
	APPROACH %	24%	42%	34%	12%	69%	19%	4%	84%	12%	12%	83%	5%						
	APP/DEPART	1,103	/	705	1,095	/	1,378	2,531	/	2,643	2,722	/	2,726	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	145	243	182	77	408	96	53	1,066	146	169	1,244	79	3,904					
	APPROACH %	25%	43%	32%	13%	70%	16%	4%	84%	12%	11%	83%	5%						
	PEAK HR FACTOR	0.825			0.850			0.942			0.806			0.866					
	APP/DEPART	569	/	374	580	/	722	1,264	/	1,325	1,492	/	1,484	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Pioneer Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 15 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

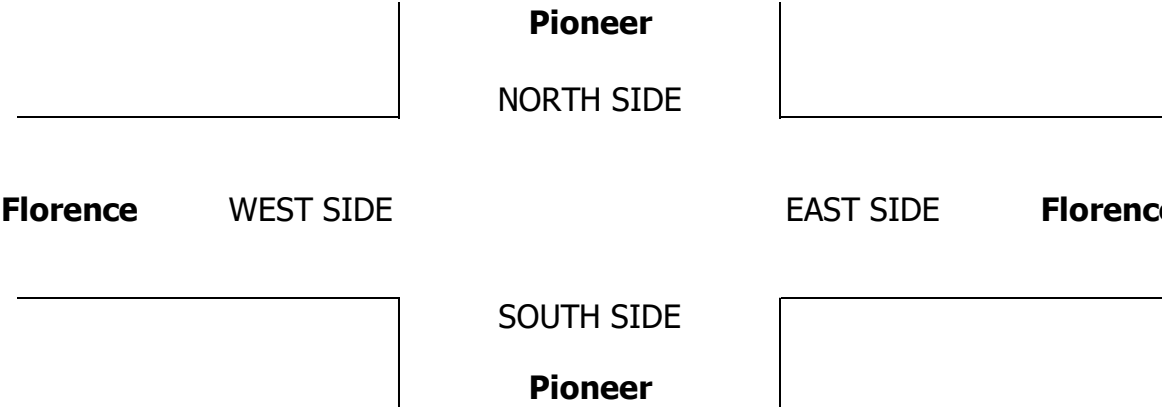
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Florence			Florence			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	26	39	28	7	28	4	13	261	9	18	222	8	663
	7:15 AM	27	50	26	11	46	6	19	259	21	28	259	10	762
	7:30 AM	33	45	38	14	48	11	16	239	18	23	222	12	719
	7:45 AM	35	97	61	13	64	5	21	267	33	26	202	15	839
	8:00 AM	44	61	31	10	41	12	16	203	23	20	222	21	704
	8:15 AM	41	76	30	11	44	7	14	205	19	19	200	12	678
	8:30 AM	21	41	24	5	36	4	17	203	15	22	188	12	588
	8:45 AM	36	37	33	13	31	12	7	202	15	9	175	11	581
	VOLUMES	263	446	271	84	338	61	123	1,839	153	165	1,690	101	5,534
	APPROACH %	27%	46%	28%	17%	70%	13%	6%	87%	7%	8%	86%	5%	
	APP/DEPART	980	/	673	483	/	654	2,115	/	2,193	1,956	/	2,014	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	139	253	156	47	199	34	72	968	95	95	905	58	3,024
	APPROACH %	25%	46%	28%	17%	71%	12%	6%	85%	8%	9%	85%	5%	
PM	PEAK HR FACTOR	0.710			0.857			0.884			0.892			0.901
	APP/DEPART	548	/	384	281	/	389	1,135	/	1,173	1,060	/	1,078	0
	04:00 PM	37	58	43	12	93	27	9	218	36	42	235	13	823
	4:15 PM	31	59	46	10	80	18	13	218	28	35	246	16	800
	4:30 PM	50	59	48	19	106	22	13	255	33	43	361	20	1,029
	4:45 PM	37	48	36	17	90	27	16	220	40	32	233	19	815
	5:00 PM	23	57	40	24	112	24	6	198	38	53	253	19	847
	5:15 PM	35	60	50	9	82	21	10	231	40	30	226	21	815
	5:30 PM	29	45	48	13	85	15	13	221	30	34	231	10	774
	5:45 PM	16	44	43	19	73	36	9	239	46	42	217	13	797
	VOLUMES	258	430	354	123	721	190	89	1,800	291	311	2,002	131	6,700
	APPROACH %	25%	41%	34%	12%	70%	18%	4%	83%	13%	13%	82%	5%	
	APP/DEPART	1,042	/	652	1,034	/	1,319	2,180	/	2,278	2,444	/	2,451	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	141	223	170	68	388	91	47	891	139	162	1,093	74	3,491
	APPROACH %	26%	42%	32%	12%	71%	17%	4%	83%	13%	12%	82%	6%	
	PEAK HR FACTOR	0.850			0.858			0.895			0.784			0.848
	APP/DEPART	534	/	346	549	/	689	1,078	/	1,130	1,330	/	1,326	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	2	3
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	3	0	2	5

0	0	0	1	1
0	1	0	0	1
0	1	0	0	1
0	0	1	0	1
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	1	0	1	2
0	3	1	4	8



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
15  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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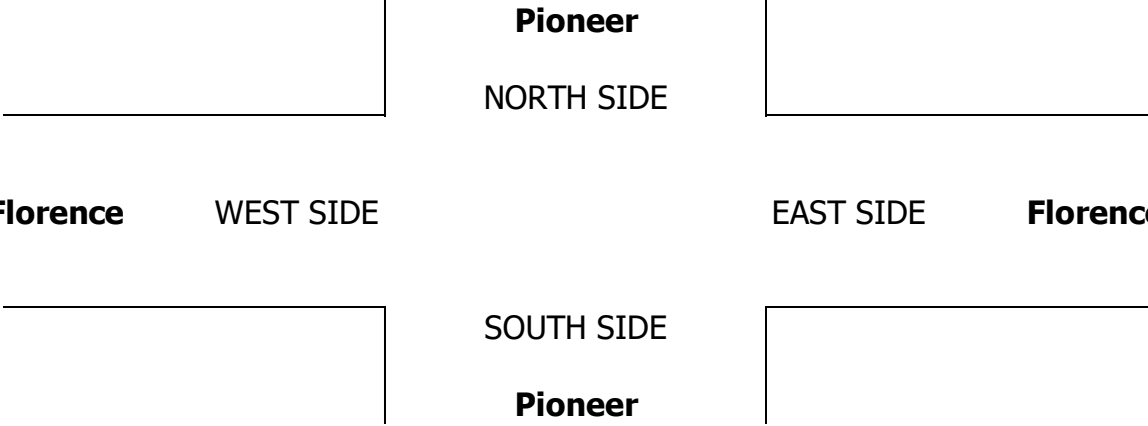
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	0	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	2	2	0	1	0	1	14	1	3	23	1	49
	7:15 AM	2	3	2	1	0	0	0	12	2	1	20	1	44
	7:30 AM	0	3	4	0	4	0	0	9	0	0	19	0	39
	7:45 AM	2	1	1	0	2	1	0	11	3	1	13	0	35
	8:00 AM	2	1	1	0	3	1	1	18	0	1	22	1	51
	8:15 AM	2	0	0	1	2	1	0	14	0	2	12	0	34
	8:30 AM	1	3	2	3	1	0	1	22	2	2	22	1	60
	8:45 AM	0	1	0	0	2	0	1	10	2	0	20	1	37
	VOLUMES	10	14	12	5	15	3	4	110	10	10	151	5	349
	APPROACH %	28%	39%	33%	22%	65%	13%	3%	89%	8%	6%	91%	3%	
	APP/DEPART	36	/	23	23	/	35	124	/	127	166	/	164	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	6	8	8	1	9	2	1	50	5	3	74	2	169
	APPROACH %	27%	36%	36%	8%	75%	17%	2%	89%	9%	4%	94%	3%	
	PEAK HR FACTOR	0.786			0.750			0.737			0.823			0.828
	APP/DEPART	22	/	11	12	/	17	56	/	59	79	/	82	0
PM	04:00 PM	0	3	2	1	4	1	2	12	0	1	12	1	39
	4:15 PM	0	3	0	0	0	1	0	14	3	1	13	0	35
	4:30 PM	0	2	3	1	3	0	0	7	0	1	10	0	27
	4:45 PM	1	4	1	0	3	0	1	16	0	1	6	2	35
	5:00 PM	0	2	0	2	5	0	2	13	0	1	4	0	29
	5:15 PM	0	0	1	0	1	0	1	9	1	1	6	2	22
	5:30 PM	1	1	2	0	4	3	0	6	0	0	4	0	21
	5:45 PM	1	3	2	1	2	0	0	10	0	0	2	0	21
	VOLUMES	3	18	11	5	22	5	6	87	4	6	57	5	229
	APPROACH %	9%	56%	34%	16%	69%	16%	6%	90%	4%	9%	84%	7%	
	APP/DEPART	32	/	29	32	/	32	97	/	103	68	/	65	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	1	11	4	3	11	1	3	50	3	4	33	2	126
	APPROACH %	6%	69%	25%	20%	73%	7%	5%	89%	5%	10%	85%	5%	
	PEAK HR FACTOR	0.667			0.536			0.824			0.696			0.900
	APP/DEPART	16	/	16	15	/	18	56	/	57	39	/	35	0

0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
15  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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N  
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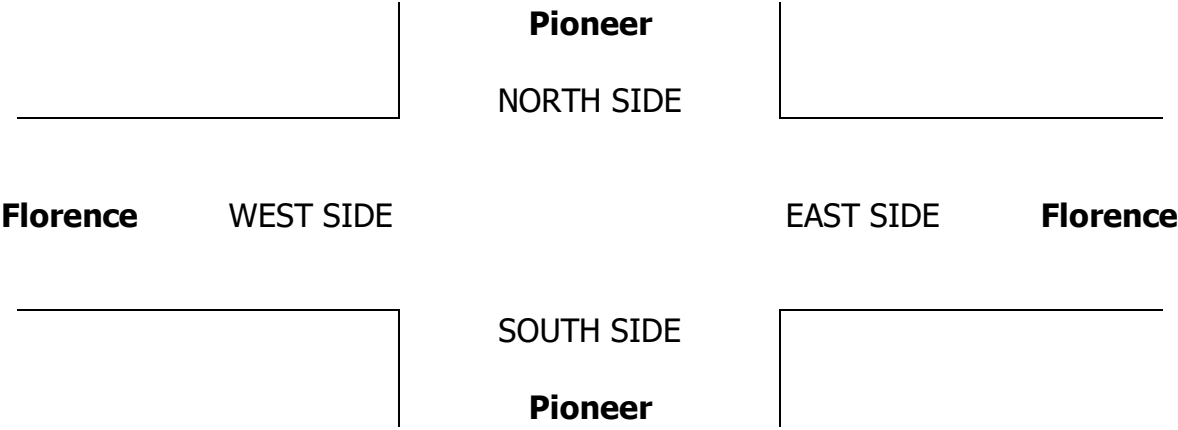
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	0	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	5	0	0	9	1	15
	7:15 AM	1	0	0	0	0	0	1	0	0	6	0	8
	7:30 AM	0	0	0	0	0	0	1	0	0	4	1	6
	7:45 AM	0	2	0	0	1	1	2	0	0	1	0	7
	8:00 AM	0	1	0	0	0	0	4	0	0	2	1	8
	8:15 AM	0	0	0	0	0	0	3	0	1	5	1	10
	8:30 AM	0	0	0	0	1	0	3	0	0	2	0	6
	8:45 AM	0	1	0	0	0	0	1	0	0	3	0	5
	VOLUMES	1	4	0	0	2	0	20	0	1	32	4	65
	APPROACH %	20%	80%	0%	0%	100%	0%	5%	95%	0%	3%	86%	11%
	APP/DEPART	5	/	9	2	/	3	21	/	20	37	/	33
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	1	3	0	0	1	0	1	8	0	0	13	2
	APPROACH %	25%	75%	0%	0%	100%	0%	11%	89%	0%	0%	87%	13%
	PEAK HR FACTOR	0.500			0.250			0.563			0.625		
	APP/DEPART	4	/	6	1	/	1	9	/	8	15	/	14
PM	04:00 PM	0	0	0	1	0	0	0	4	0	0	6	0
	4:15 PM	0	0	0	1	0	0	0	2	0	0	3	0
	4:30 PM	0	0	0	0	0	0	0	2	0	0	5	0
	4:45 PM	0	0	0	0	0	0	0	3	0	0	2	0
	5:00 PM	0	0	0	0	0	0	0	4	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	1	0	0	3	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0
	VOLUMES	0	0	0	2	0	0	0	18	0	0	20	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	95%	5%
	APP/DEPART	0	/	1	2	/	0	18	/	20	21	/	20
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	1	0	0	0	11	0	0	10	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	91%	9%
	PEAK HR FACTOR	0.000			0.250			0.688			0.550		
	APP/DEPART	0	/	1	1	/	0	11	/	12	11	/	10

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
15  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
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MD  
OTHER  
OTHER

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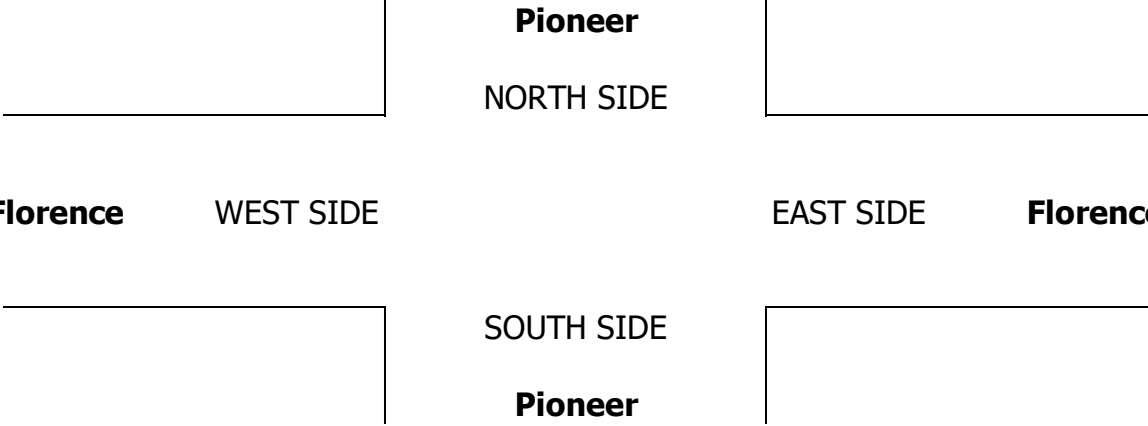
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	0	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	5	0	0	6	0	11
	7:15 AM	0	0	0	0	0	0	7	0	0	6	0	13
	7:30 AM	0	0	0	0	1	0	9	0	0	5	1	16
	7:45 AM	0	3	0	0	0	0	7	0	1	6	0	17
	8:00 AM	0	0	1	0	0	0	8	0	1	11	1	22
	8:15 AM	1	2	0	0	0	0	12	0	0	10	0	25
	8:30 AM	0	0	1	0	1	0	11	0	0	8	0	21
	8:45 AM	0	0	0	0	0	0	10	0	1	10	1	22
	VOLUMES	1	5	2	0	1	1	69	0	3	62	3	147
	APPROACH %	13%	63%	25%	0%	50%	50%	0%	100%	0%	4%	91%	4%
	APP/DEPART	8	/	8	2	/	4	69	/	71	68	/	64
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	3	1	0	0	1	0	31	0	2	28	2
	APPROACH %	0%	75%	25%	0%	0%	100%	0%	100%	0%	6%	88%	6%
	PEAK HR FACTOR	0.333			0.250			0.861			0.615		
	APP/DEPART	4	/	5	1	/	2	31	/	32	32	/	29
PM	04:00 PM	0	0	0	0	0	0	10	0	0	3	1	14
	4:15 PM	0	0	0	0	0	0	7	0	0	7	0	14
	4:30 PM	0	0	2	0	0	1	0	6	0	4	0	13
	4:45 PM	0	0	0	0	1	0	0	8	0	7	0	16
	5:00 PM	0	1	0	0	0	0	3	0	0	7	0	11
	5:15 PM	0	0	0	0	0	0	6	0	0	5	0	11
	5:30 PM	0	0	0	0	0	0	4	0	0	1	0	5
	5:45 PM	0	0	0	0	0	1	0	7	0	4	1	13
	VOLUMES	0	1	2	0	1	2	0	51	0	0	38	2
	APPROACH %	0%	33%	67%	0%	33%	67%	0%	100%	0%	0%	95%	5%
	APP/DEPART	3	/	3	3	/	1	51	/	53	40	/	40
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	1	2	0	1	1	0	24	0	0	25	0
	APPROACH %	0%	33%	67%	0%	50%	50%	0%	100%	0%	0%	100%	0%
	PEAK HR FACTOR	0.375			0.500			0.750			0.893		
	APP/DEPART	3	/	1	2	/	1	24	/	26	25	/	26

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
15  
SIGNAL

CLASS 5:

RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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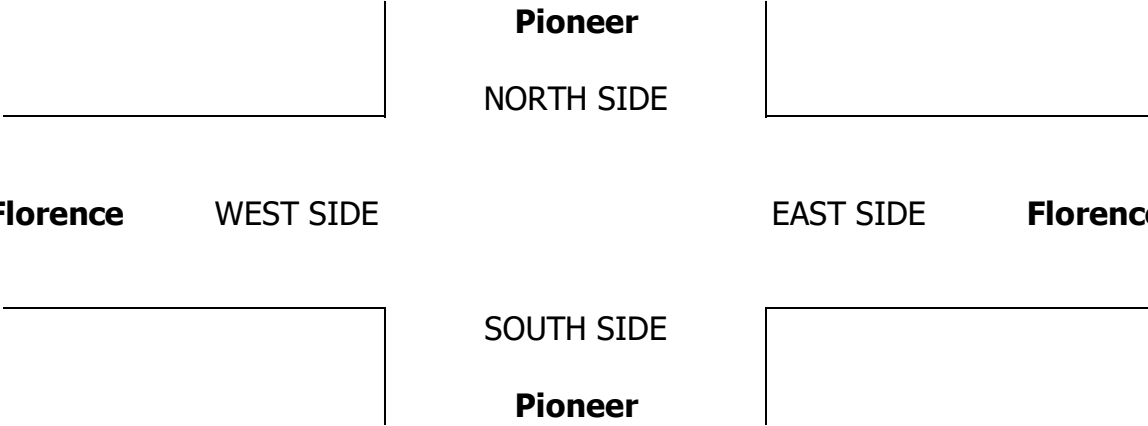
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Pioneer			Pioneer			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	0	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Pioneer  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
15  
SIGNAL

CLASS 6:

NOTES:

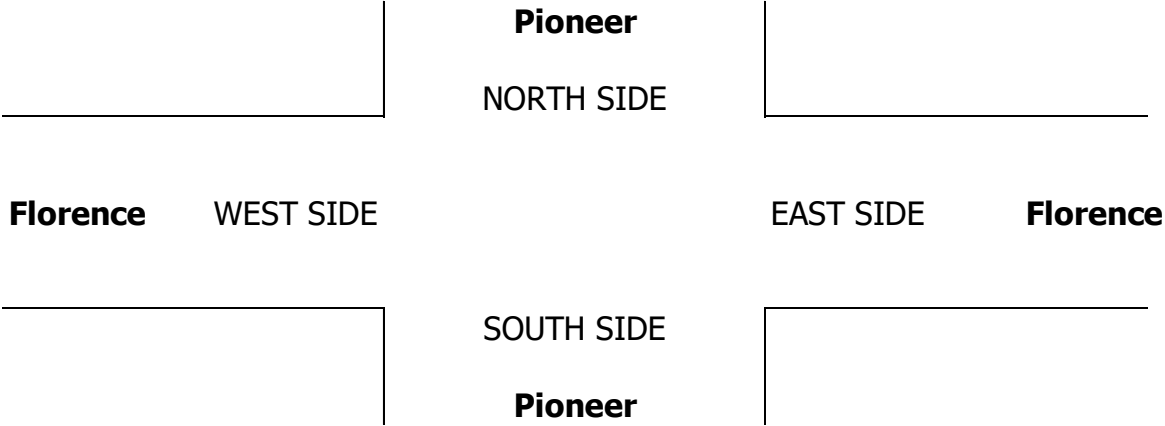
AM  
PM  
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OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Pioneer			Pioneer			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL					
AM	7:00 AM	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
	7:30 AM	1	0	0	0	0	0	1	0	1	3	0	7	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	0	2	1	3	0	8	0	0	0	0	0
	8:00 AM	0	0	1	0	0	0	2	0	0	2	0	5	0	0	0	0	0
	8:15 AM	1	0	0	0	0	0	3	1	0	1	0	7	0	0	0	0	0
	8:30 AM	0	1	1	0	0	0	0	0	0	1	0	3	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	2	2	2	0	1	2	0	8	5	2	12	0	36				
	APPROACH %	33%	33%	33%	0%	33%	67%	0%	62%	38%	14%	86%	0%					
	APP/DEPART	6	/	2	3	/	8	13	/	10	14	/	16	0				
	BEGIN PEAK HR	7:15 AM																
PM	VOLUMES	1	1	1	0	1	1	0	3	4	2	8	0	22				
	APPROACH %	33%	33%	33%	0%	50%	50%	0%	43%	57%	20%	80%	0%					
	PEAK HR FACTOR	0.750			0.500			0.875			0.625			0.688				
	APP/DEPART	3	/	1	2	/	7	7	/	4	10	/	10	0				
	04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	1	0	2	0	4				
	4:30 PM	1	0	0	0	0	0	0	1	0	0	0	0	2				
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0				
	5:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2				
	5:15 PM	1	0	0	0	0	0	0	2	1	0	0	0	4				
	5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2				
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2				
	VOLUMES	2	0	0	0	0	0	0	6	2	0	7	0	17				
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	75%	25%	0%	100%	0%					
	APP/DEPART	2	/	0	0	/	2	8	/	6	7	/	9	0				
	BEGIN PEAK HR	4:15 PM																
	VOLUMES	1	0	0	0	0	0	0	3	1	0	3	0	8				
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	75%	25%	0%	100%	0%					
	PEAK HR FACTOR	0.250			0.000			0.500			0.375			0.500				
	APP/DEPART	1	/	0	0	/	1	4	/	3	3	/	4	0				



PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

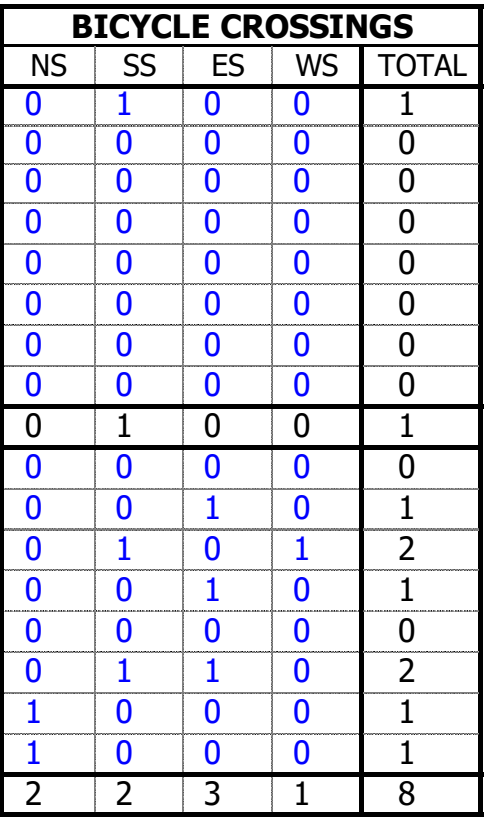
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC2721  
LOCATION #: 16  
CONTROL: SIGNAL

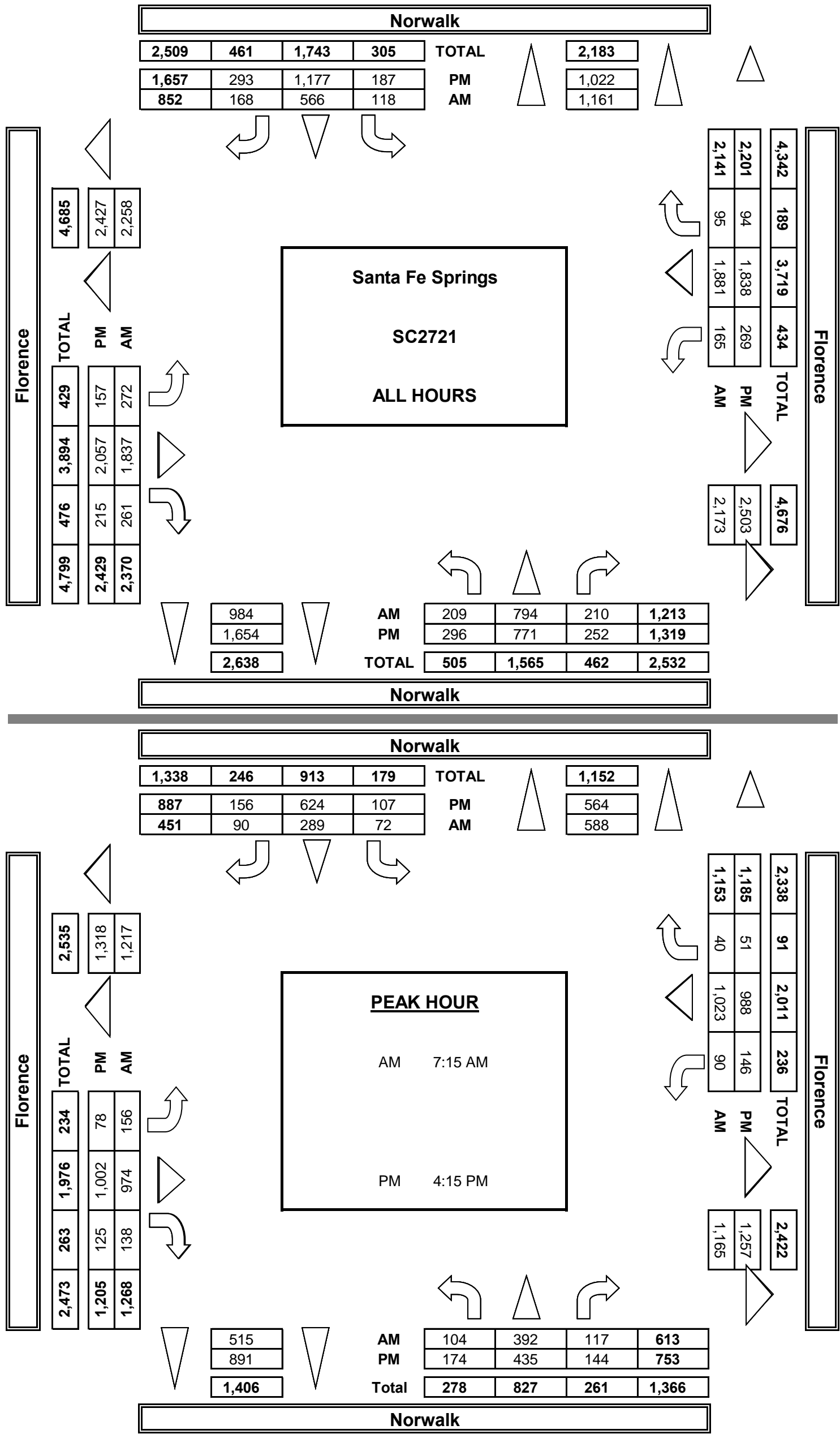
☒ Add U-Turns to Left Turns

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	3	3
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	7	7



AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 16 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					

AM	7:00 AM	38	97	31	13	92	26	21	235	57	23	273	14	918					0
	7:15 AM	26	95	35	27	87	25	35	273	54	26	312	8	1,000					0
	7:30 AM	26	103	31	27	71	20	41	282	31	35	281	10	956					0
	7:45 AM	29	158	37	16	111	37	51	294	35	19	242	16	1,042					0
	8:00 AM	36	118	27	25	92	35	51	210	34	27	284	12	950					0
	8:15 AM	35	120	24	17	105	27	40	230	28	14	244	13	894					0
	8:30 AM	34	140	21	15	87	20	32	254	23	37	221	19	899					0
	8:45 AM	26	125	33	17	78	26	44	240	37	19	210	20	870					0
	VOLUMES	248	954	239	155	721	214	314	2,015	297	198	2,066	111	7,528	0	0	0	0	0
	APPROACH %	17%	66%	17%	14%	66%	20%	12%	77%	11%	8%	87%	5%						
APP/DEPART	1,440	/	1,378	1,089	/	1,216	2,625	/	2,408	2,374	/	2,527	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	117	473	130	94	360	116	178	1,058	153	106	1,119	46	3,947						
APPROACH %	16%	66%	18%	17%	63%	20%	13%	76%	11%	8%	88%	4%							
PEAK HR FACTOR	0.805			0.875			0.916			0.920			0.947						
APP/DEPART	720	/	697	569	/	618	1,388	/	1,282	1,270	/	1,351	0						
PM	04:00 PM	45	91	35	48	169	45	19	269	29	38	223	14	1,023					0
	4:15 PM		132	31	15	182	45	26	259	24	34	252	14	1,011					0
	4:30 PM	69	140	44	32	150	48	19	261	38	42	294	18	1,153					0
	4:45 PM	47	129	42	32	139	30	26	315	41	40	257	19	1,114					0
	5:00 PM	34	117	40	40	206	52	25	237	29	34	238	9	1,059					0
	5:15 PM	36	125	27	16	148	29	12	279	25	33	232	6	965					0
	5:30 PM	26	81	29	25	160	43	28	285	27	44	213	16	976					0
	5:45 PM	25	91	22	20	140	36	26	280	30	22	223	14	929					0
	VOLUMES	282	904	268	226	1,292	326	180	2,184	242	286	1,931	109	8,228	0	0	0	0	0
	APPROACH %	19%	62%	18%	12%	70%	18%	7%	84%	9%	12%	83%	5%						
	APP/DEPART	1,454	/	1,193	1,844	/	1,819	2,606	/	2,678	2,326	/	2,539	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	150	517	156	118	676	173	96	1,072	132	149	1,041	60	4,336					
	APPROACH %	18%	63%	19%	12%	70%	18%	7%	83%	10%	12%	83%	5%						
	PEAK HR FACTOR	0.814			0.815			0.850			0.882			0.940					
APP/DEPART	822	/	672	967	/	957	1,299	/	1,345	1,249	/	1,363	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 16 SIGNAL
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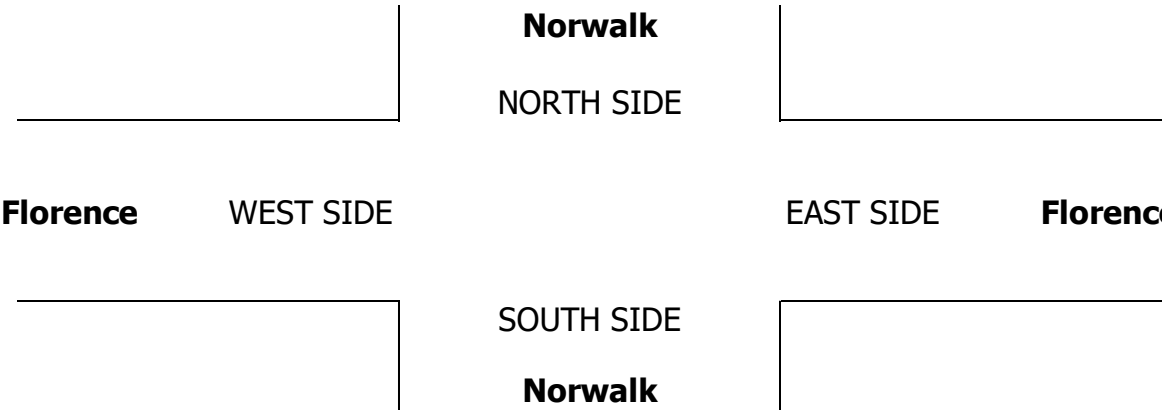
CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					

AM	7:00 AM	22	68	28	13	50	13	13	201	47	12	222	8	697
	7:15 AM	23	63	31	17	56	16	24	230	49	18	258	4	789
	7:30 AM	22	64	22	16	42	13	32	226	25	22	224	6	714
	7:45 AM	24	111	29	11	75	19	41	257	32	14	215	13	841
	8:00 AM	22	90	21	10	54	18	36	172	19	21	216	10	689
	8:15 AM	24	86	19	8	62	11	31	174	22	14	204	11	666
	8:30 AM	22	96	16	7	46	17	27	196	9	22	166	17	641
	8:45 AM	12	86	16	5	39	13	27	196	29	13	163	10	609
	VOLUMES	171	664	182	87	424	120	231	1,652	232	136	1,668	79	5,646
	APPROACH %	17%	65%	18%	14%	67%	19%	11%	78%	11%	7%	89%	4%	
	APP/DEPART	1,017	/	974	631	/	786	2,115	/	1,927	1,883	/	1,959	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	91	328	103	54	227	66	133	885	125	74	913	33	3,033
	APPROACH %	17%	63%	20%	16%	65%	19%	12%	77%	11%	7%	89%	3%	
PM	PEAK HR FACTOR	0.796			0.826			0.866			0.912			0.902
	APP/DEPART	522	/	494	347	/	426	1,143	/	1,043	1,021	/	1,070	0
	04:00 PM	37	60	27	19	115	28	17	227	18	29	202	14	793
	4:15 PM	31	83	26	15	143	33	16	224	24	27	219	11	852
	4:30 PM	63	112	41	25	128	40	10	233	33	42	270	15	1,012
	4:45 PM	41	89	40	24	136	25	18	263	38	38	226	11	949
	5:00 PM	26	79	26	35	177	44	20	205	25	34	215	9	895
	5:15 PM	33	90	22	12	135	26	10	256	18	31	205	6	844
	5:30 PM	21	69	29	19	143	40	28	266	21	35	198	11	880
	5:45 PM	22	77	22	12	111	33	20	250	19	17	204	8	795
	VOLUMES	274	659	233	161	1,088	269	139	1,924	196	253	1,739	85	7,020
	APPROACH %	23%	57%	20%	11%	72%	18%	6%	85%	9%	12%	84%	4%	
	APP/DEPART	1,166	/	883	1,518	/	1,530	2,259	/	2,325	2,077	/	2,282	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	161	363	133	99	584	142	64	925	120	137	930	46	3,708
	APPROACH %	25%	55%	20%	12%	71%	17%	6%	83%	11%	12%	83%	4%	
	PEAK HR FACTOR	0.760			0.806			0.869			0.854			0.916
	APP/DEPART	657	/	473	825	/	841	1,109	/	1,161	1,117	/	1,233	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	2	2
0	0	0	1	1
0	0	0	2	2
0	0	0	6	6

0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	3	3
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	7	7



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
16  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

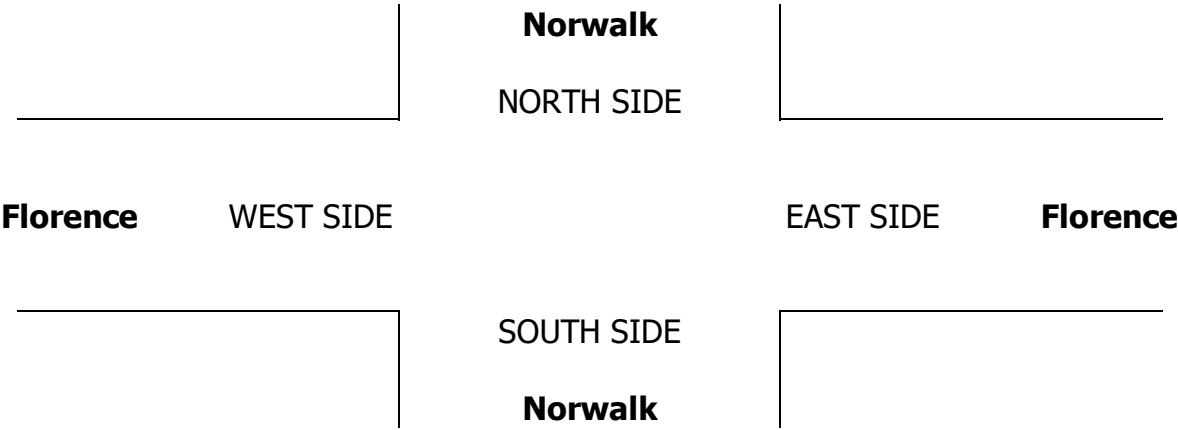
NOTES:

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		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Norwalk			Norwalk			Florence			Florence				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					
AM	7:00 AM	5	7	2	0	10	6	2	15	1	0	16	0	64	0	0	0	0	0
	7:15 AM	0	5	0	1	5	4	4	13	1	1	19	0	53	0	0	0	0	0
	7:30 AM	1	4	4	2	10	1	2	21	1	3	16	0	65	0	0	0	1	1
	7:45 AM	2	7	2	1	5	3	3	13	0	1	8	2	47	0	0	0	0	0
	8:00 AM	4	6	2	4	9	3	4	12	2	2	26	0	74	0	0	0	0	0
	8:15 AM	3	5	0	2	13	1	0	15	2	0	10	1	52	0	0	0	0	0
	8:30 AM	1	10	1	3	8	2	3	17	2	1	25	1	74	0	0	0	0	0
	8:45 AM	3	7	4	1	11	5	3	7	1	2	13	3	60	0	0	0	0	0
	VOLUMES	19	51	15	14	71	25	21	113	10	10	133	7	489	0	0	0	1	1
	APPROACH %	22%	60%	18%	13%	65%	23%	15%	78%	7%	7%	89%	5%						
	APP/DEPART	85	/	79	110	/	90	144	/	143	150	/	177	0					
	BEGIN PEAK HR	7:15 AM																	
VOLUMES	7	22	8	8	29	11	13	59	4	6	69	2	239						
APPROACH %	19%	59%	22%	17%	60%	23%	17%	78%	5%	8%	88%	3%							
PEAK HR FACTOR	0.771			0.750			0.792			0.696			0.807						
APP/DEPART	37	/	37	48	/	39	76	/	76	78	/	87	0						
PM	04:00 PM	2	7	4	2	7	2	1	10	1	0	10	0	46	0	0	0	0	0
	4:15 PM	1	11	1	0	6	3	1	13	0	3	12	0	51	0	0	0	0	0
	4:30 PM	1	6	2	1	3	1	2	8	0	0	8	0	32	0	0	0	0	0
	4:45 PM	0	7	1	1	2	1	2	20	0	1	9	1	45	0	0	0	0	0
	5:00 PM	2	8	3	1	3	1	0	10	1	0	10	0	39	0	0	0	0	0
	5:15 PM	2	2	3	1	3	0	0	8	3	1	3	0	26	0	0	0	0	0
	5:30 PM	0	1	0	0	4	0	0	5	0	4	6	1	21	0	0	0	0	0
	5:45 PM	0	4	0	1	4	0	0	8	0	0	4	0	21	0	0	0	0	0
	VOLUMES	8	46	14	7	32	8	6	82	5	9	62	2	281	0	0	0	0	0
	APPROACH %	12%	68%	21%	15%	68%	17%	6%	88%	5%	12%	85%	3%						
	APP/DEPART	68	/	54	47	/	46	93	/	103	73	/	78	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	4	32	7	3	14	6	5	51	1	4	39	1	167					
	APPROACH %	9%	74%	16%	13%	61%	26%	9%	89%	2%	9%	89%	2%						
PEAK HR FACTOR	0.827			0.639			0.648			0.733			0.819						
APP/DEPART	43	/	38	23	/	19	57	/	61	44	/	49	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 16 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N S ▼</div><div>◀ W E ▶</div></div>

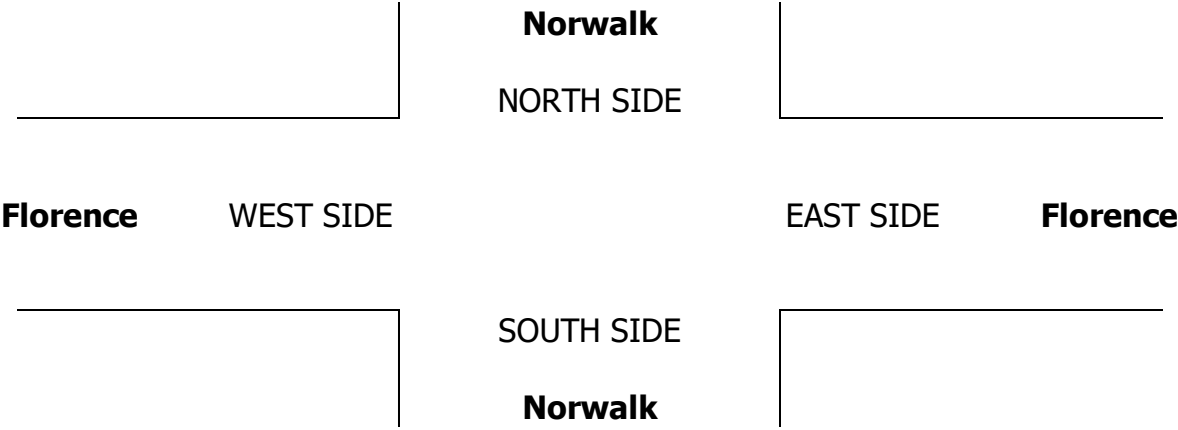
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	4	2	0	0	2	2	0	4	0	4	8	0	26
	7:15 AM	0	5	2	0	0	0	1	1	0	3	5	2	19
	7:30 AM	1	3	0	1	3	0	0	3	0	1	10	2	24
	7:45 AM	0	2	1	0	2	2	1	1	0	0	1	0	10
	8:00 AM	0	2	0	0	2	2	1	0	2	0	1	1	11
	8:15 AM	0	3	1	0	4	3	3	4	0	0	5	0	23
	8:30 AM	1	1	0	0	3	0	0	3	0	2	4	0	14
	8:45 AM	0	2	1	2	2	1	0	3	0	0	3	1	15
	VOLUMES	6	20	5	3	18	10	6	19	2	10	37	6	142
	APPROACH %	19%	65%	16%	10%	58%	32%	22%	70%	7%	19%	70%	11%	
	APP/DEPART	31	/	32	31	/	30	27	/	27	53	/	53	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	1	12	3	1	7	4	3	5	2	4	17	5	64
	APPROACH %	6%	75%	19%	8%	58%	33%	30%	50%	20%	15%	65%	19%	
	PEAK HR FACTOR	0.571			0.750			0.833			0.500			0.667
	APP/DEPART	16	/	20	12	/	13	10	/	9	26	/	22	0
	04:00 PM	0	1	1	1	5	1	0	6	0	0	3	0	18
	4:15 PM	0	3	0	0	0	2	0	0	0	1	0	0	6
	4:30 PM	2	2	0	1	3	0	0	2	0	0	3	0	13
	4:45 PM	0	2	0	0	0	0	1	2	0	0	1	0	6
	5:00 PM	0	3	0	0	3	0	1	4	0	0	1	0	12
	5:15 PM	0	3	0	1	1	0	0	1	0	0	2	0	8
	5:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
	5:45 PM	0	1	0	0	1	0	0	0	0	1	1	0	4
	VOLUMES	2	16	1	3	13	3	2	16	0	2	11	0	69
	APPROACH %	11%	84%	5%	16%	68%	16%	11%	89%	0%	15%	85%	0%	
	APP/DEPART	19	/	18	19	/	15	18	/	20	13	/	16	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	2	10	0	1	6	2	2	8	0	1	5	0	37
	APPROACH %	17%	83%	0%	11%	67%	22%	20%	80%	0%	17%	83%	0%	
	PEAK HR FACTOR	0.750			0.563			0.500			0.500			0.712
	APP/DEPART	12	/	12	9	/	7	10	/	9	6	/	9	0

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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Norwalk Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 16 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

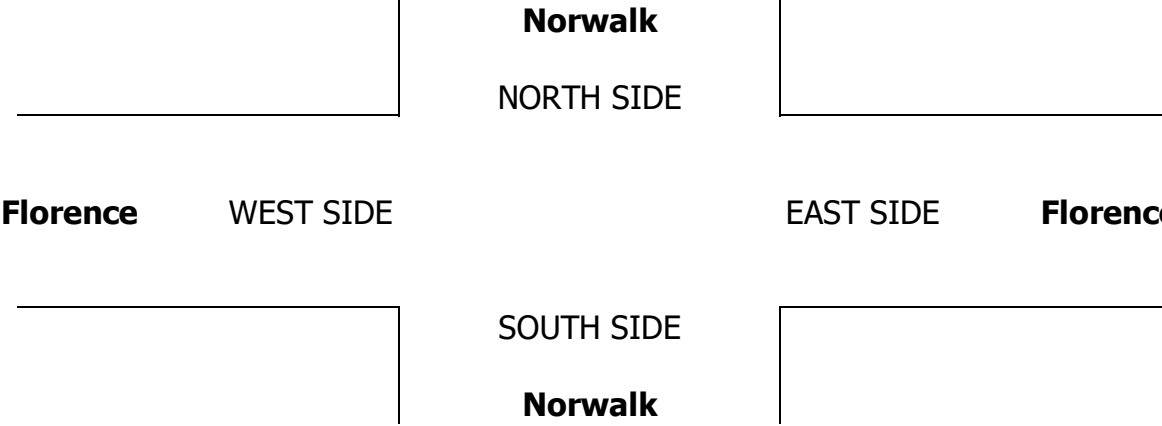
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	4	0	0	7	0	1	1	2	1	3	2	21
	7:15 AM	1	4	0	2	7	1	1	7	1	0	5	0	29
	7:30 AM	0	9	1	2	2	1	2	6	0	2	3	0	28
	7:45 AM	0	10	1	1	8	3	1	5	1	1	3	0	34
	8:00 AM	2	5	1	3	6	2	1	6	2	1	9	0	38
	8:15 AM	2	6	1	2	5	2	1	7	1	0	5	0	32
	8:30 AM	2	9	1	1	7	0	0	8	3	3	3	0	37
	8:45 AM	3	8	3	2	6	1	4	9	2	1	7	1	47
	VOLUMES	10	55	8	13	48	10	11	49	12	9	38	3	266
	APPROACH %	14%	75%	11%	18%	68%	14%	15%	68%	17%	18%	76%	6%	
	APP/DEPART	73	/	69	71	/	68	72	/	71	50	/	58	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	28	3	8	23	7	5	24	4	4	20	0	129
PM	APPROACH %	9%	82%	9%	21%	61%	18%	15%	73%	12%	17%	83%	0%	
	PEAK HR FACTOR	0.773			0.792			0.917			0.600			0.849
	APP/DEPART	34	/	33	38	/	31	33	/	35	24	/	30	0
	04:00 PM	1	6	0	8	11	4	0	5	3	3	0	0	41
	4:15 PM	2	8	1	0	10	1	2	5	0	0	5	1	35
	4:30 PM	0	5	0	1	3	2	2	4	1	0	2	1	21
	4:45 PM	2	7	0	2	0	1	1	6	1	0	5	2	27
	5:00 PM	1	6	3	1	6	2	1	3	0	0	2	0	25
	5:15 PM	0	8	0	0	2	1	0	3	0	0	6	0	20
	5:30 PM	1	2	0	2	3	1	0	3	2	1	2	1	18
	5:45 PM	1	2	0	2	7	1	2	6	3	1	3	2	30
	VOLUMES	8	44	4	16	42	13	8	35	10	5	25	7	217
	APPROACH %	14%	79%	7%	23%	59%	18%	15%	66%	19%	14%	68%	19%	
	APP/DEPART	56	/	59	71	/	57	53	/	55	37	/	46	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	5	26	4	4	19	6	6	18	2	0	14	4	108
	APPROACH %	14%	74%	11%	14%	66%	21%	23%	69%	8%	0%	78%	22%	
	PEAK HR FACTOR	0.795			0.659			0.813			0.643			0.771
	APP/DEPART	35	/	36	29	/	21	26	/	26	18	/	25	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
16  
SIGNAL

CLASS 5:  
RV

NOTES:

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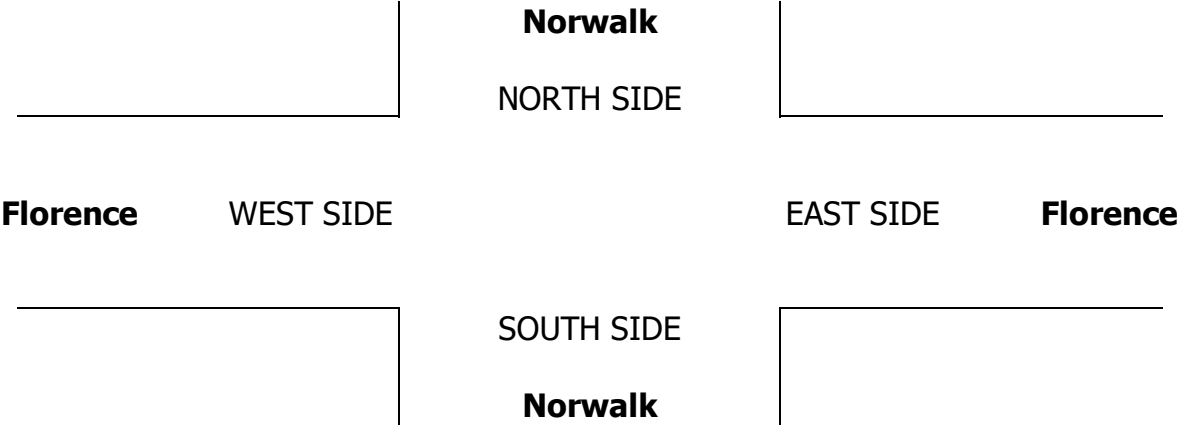
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Norwalk			Norwalk			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	1	0	0	0	0	0	0	0	1
PM	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.250			0.000			0.000		
	APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Norwalk  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
16  
SIGNAL

CLASS 6:

NOTES:

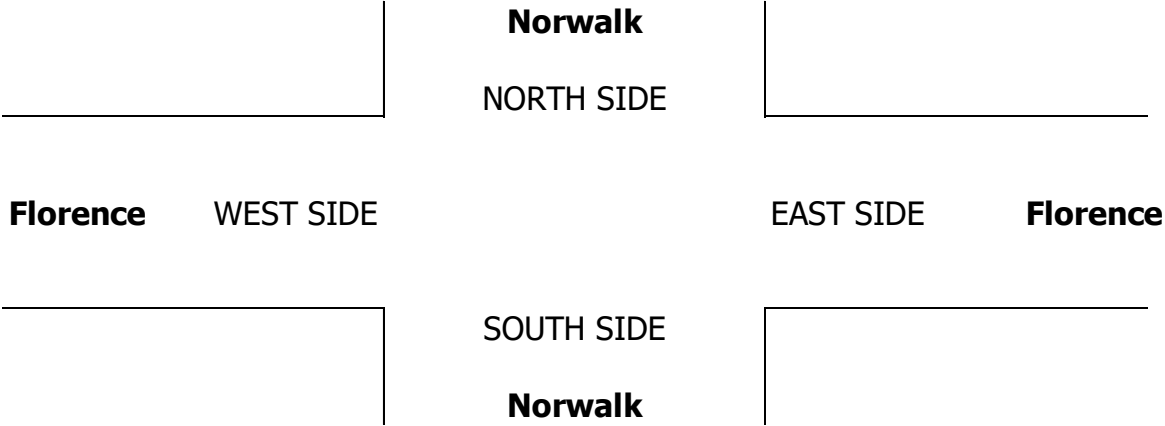
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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Norwalk			Norwalk			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					
AM	7:00 AM	0	1	0	0	1	0	0	1	0	1	0	5	0	0	0	0	0
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	1	1	0	0	2	0	2	6	0	0	0	0	0
	7:45 AM	1	1	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0
	8:00 AM	1	0	0	0	1	1	2	1	1	0	0	7	0	0	0	0	0
	8:15 AM	0	1	0	0	0	1	0	2	0	0	0	4	0	0	0	0	0
	8:30 AM	1	0	0	0	1	0	0	1	1	0	0	4	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	4	0	0	5	3	3	4	5	0	5	32					
	APPROACH %	43%	57%	0%	0%	63%	38%	25%	33%	42%	0%	100%	0%					
PM	APP/DEPART	7	/	7	8	/	10	12	/	4	5	/	11	0				
	BEGIN PEAK HR	7:15 AM																
	VOLUMES	2	2	0	0	3	2	2	1	3	0	4	19					
	APPROACH %	50%	50%	0%	0%	60%	40%	33%	17%	50%	0%	100%	0%					
	PEAK HR FACTOR	0.500			0.625			0.375			0.500			0.679				
	APP/DEPART	4	/	4	5	/	6	6	/	1	4	/	8	0				
	04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	4:15 PM	1	1	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0
	4:30 PM	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0
	4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
	5:00 PM	1	1	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0
	5:15 PM	0	1	0	0	0	0	1	0	1	0	0	0	3	0	0	0	0
	5:30 PM	1	1	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0
	VOLUMES	4	6	0	0	2	0	2	0	4	0	1	0	19				
	APPROACH %	40%	60%	0%	0%	100%	0%	33%	0%	67%	0%	100%	0%					
	APP/DEPART	10	/	8	2	/	6	6	/	0	1	/	5	0				
	BEGIN PEAK HR	4:15 PM																
	VOLUMES	2	4	0	0	1	0	1	0	2	0	0	0	10				
	APPROACH %	33%	67%	0%	0%	100%	0%	33%	0%	67%	0%	0%	0%					
	PEAK HR FACTOR	0.750			0.250			0.750			0.000			0.833				
	APP/DEPART	6	/	5	1	/	3	3	/	0	0	/	2	0				



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
17  
SIGNAL

NOTES:

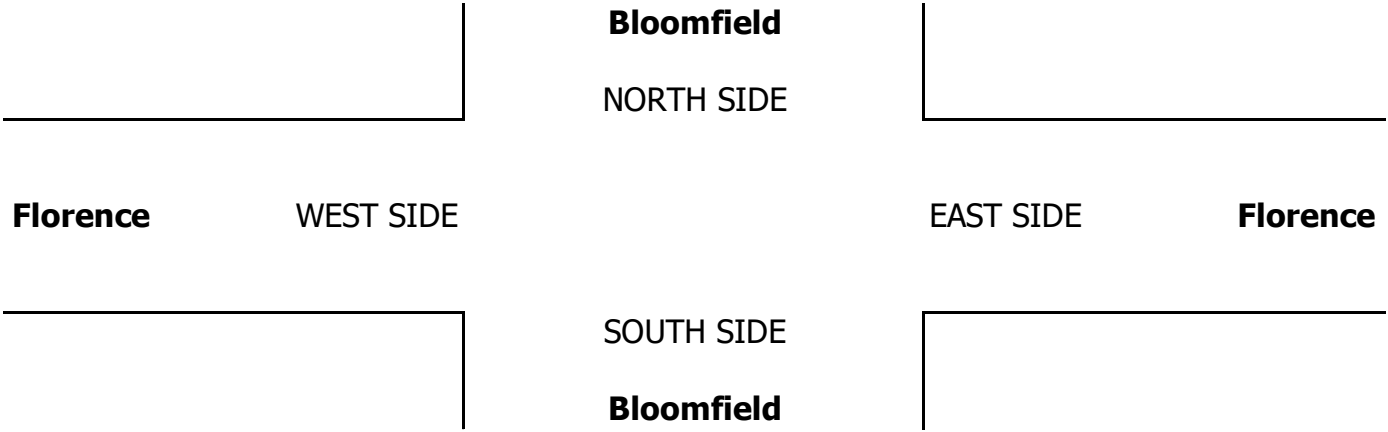
AM  
PM  
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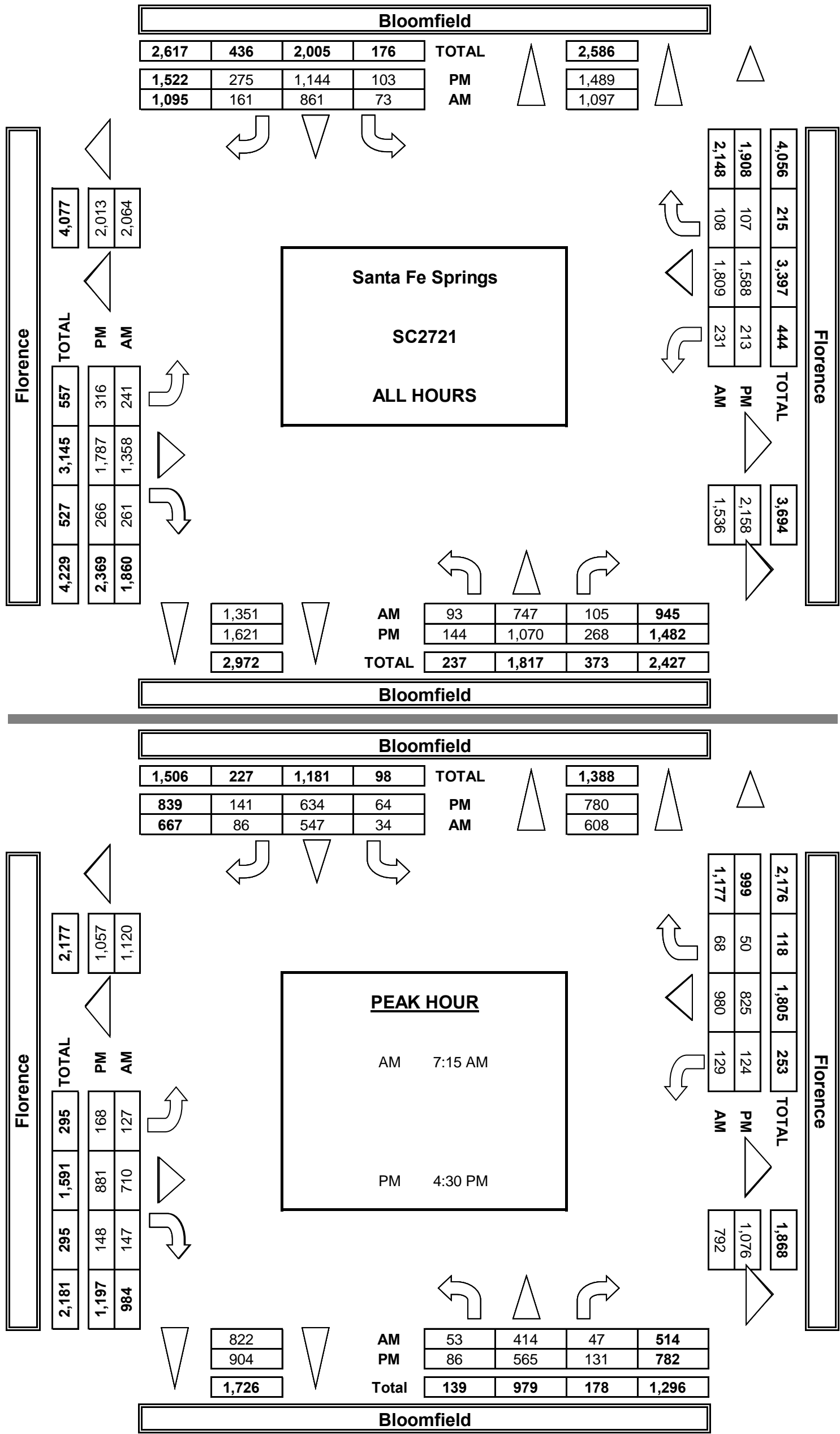
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Bloomfield			Bloomfield			Florence			Florence				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL					
AM	7:00 AM	8	80	10	7	104	29	22	152	48	30	219	6	715	0	0	0	0	0
	7:15 AM	17	79	12	10	128	22	22	172	46	32	293	13	846	0	0	0	1	1
	7:30 AM	13	101	10	9	130	18	23	159	31	29	219	18	760	0	0	1	0	1
	7:45 AM	11	109	11	10	137	25	51	219	47	46	267	24	957	0	0	0	0	0
	8:00 AM	12	125	14	5	152	21	31	160	23	22	201	13	779	0	0	0	0	0
	8:15 AM	10	91	14	13	87	14	23	153	23	34	228	15	705	0	0	0	0	0
	8:30 AM	8	79	16	12	91	23	35	189	21	22	204	13	713	0	2	0	1	3
	8:45 AM	14	83	18	7	32	9	34	154	22	16	178	6	573	0	0	0	0	0
	VOLUMES	93	747	105	73	861	161	241	1,358	261	231	1,809	108	6,048	0	2	1	2	5
	APPROACH %	10%	79%	11%	7%	79%	15%	13%	73%	14%	11%	84%	5%						
	APP/DEPART	945	/	1,097	1,095	/	1,351	1,860	/	1,536	2,148	/	2,064	0					
	BEGIN PEAK HR	7:15 AM																	
VOLUMES	53	414	47	34	547	86	127	710	147	129	980	68	3,342						
APPROACH %	10%	81%	9%	5%	82%	13%	13%	72%	15%	11%	83%	6%							
PEAK HR FACTOR	0.851			0.937			0.776			0.871			0.873						
APP/DEPART	514	/	608	667	/	822	984	/	792	1,177	/	1,120	0						
PM	04:00 PM	12	136	34	12	148	40	39	198	38	23	181	29	890	0	0	1	0	1
	4:15 PM	23	114	31	7	117	25	49	219	36	23	223	12	879	0	0	0	0	0
	4:30 PM	29	171	38	28	168	51	37	197	60	33	222	8	1,042	0	2	1	0	3
	4:45 PM	15	117	29	13	125	24	48	237	43	30	192	15	888	0	0	2	0	2
	5:00 PM	17	143	40	17	197	39	38	205	24	39	220	15	994	0	0	0	2	2
	5:15 PM	25	134	24	6	144	27	45	242	21	22	191	12	893	0	0	2	0	2
	5:30 PM	7	157	35	7	130	37	34	253	16	22	164	10	872	0	0	0	0	0
	5:45 PM	16	98	37	13	115	32	26	236	28	21	195	6	823	0	0	0	0	0
	VOLUMES	144	1,070	268	103	1,144	275	316	1,787	266	213	1,588	107	7,281	0	2	6	2	10
	APPROACH %	10%	72%	18%	7%	75%	18%	13%	75%	11%	11%	83%	6%						
	APP/DEPART	1,482	/	1,489	1,522	/	1,621	2,369	/	2,158	1,908	/	2,013	0					
	BEGIN PEAK HR	4:30 PM																	
VOLUMES	86	565	131	64	634	141	168	881	148	124	825	50	3,817						
APPROACH %	11%	72%	17%	8%	76%	17%	14%	74%	12%	12%	83%	5%							
PEAK HR FACTOR	0.821			0.829			0.912			0.911			0.916						
APP/DEPART	782	/	780	839	/	904	1,197	/	1,076	999	/	1,057	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	7:00 AM	0	0	0	3	3	0	0	0	0	0	0	0	3	3
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	1
	8:00 AM	1	0	0	0	1	1	0	0	1	0	0	0	0	0
	8:15 AM	1	1	1	1	4	0	0	0	0	1	1	1	1	4
	8:30 AM	0	1	1	1	3	0	1	1	3	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	2	3	5	12	1	1	1	4	1	1	2	4	8
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	1	1
	4:30 PM	1	1	0	4	6	1	1	0	4	0	0	0	2	2
	4:45 PM	0	1	1	1	3	0	1	0	2	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	1	3	0	1	5	1	2	0	4	0	1	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	1
	TOTAL	2	5	2	7	16	2	4	0	4	0	1	2	3	6

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

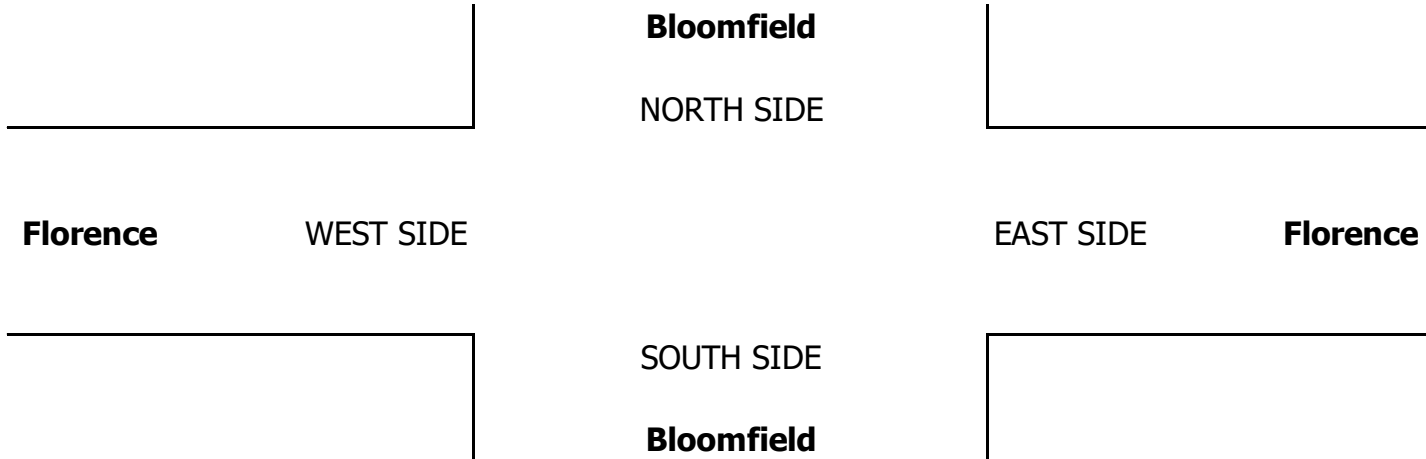
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 17 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Bloomfield			Bloomfield			Florence			Florence								
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	8	85	11	7	120	36	25	164	50	31	242	9	786					0
	7:15 AM	18	83	13	10	139	30	24	185	54	33	312	15	913					0
	7:30 AM	16	106	10	10	141	21	27	170	36	29	232	23	819					0
	7:45 AM	13	117	11	11	148	29	54	233	55	46	280	26	1,021					0
	8:00 AM	16	128	16	5	162	24	37	177	25	23	223	15	848					0
	8:15 AM	13	106	14	16	96	21	27	177	30	35	240	18	791					0
	8:30 AM	11	84	17	15	104	24	41	209	26	23	220	14	787					0
	8:45 AM	19	89	19	8	36	15	41	170	27	20	198	8	648					0
	VOLUMES	113	796	110	81	945	198	274	1,484	302	239	1,945	126	6,611	0	0	0	0	0
	APPROACH %	11%	78%	11%	7%	77%	16%	13%	72%	15%	10%	84%	5%						
APP/DEPART	1,019	/	1,196	1,223	/	1,485	2,060	/	1,674	2,309	/	2,256	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	63	433	50	36	590	104	141	764	170	130	1,046	78	3,600						
APPROACH %	11%	79%	9%	5%	81%	14%	13%	71%	16%	10%	83%	6%							
PEAK HR FACTOR	0.853			0.954			0.786			0.874			0.882						
APP/DEPART	545	/	651	729	/	889	1,074	/	849	1,253	/	1,212	0						
PM	04:00 PM	16	144	35	17	158	42	43	211	54	23	191	30	961					0
	4:15 PM	29	122	32	11	125	27	50	225	45	24	236	13	936					0
	4:30 PM	40	176	38	33	177	52	39	204	66	33	231	8	1,095					0
	4:45 PM	18	127	30	15	141	24	52	254	48	31	200	21	959					0
	5:00 PM	23	152	40	19	208	40	40	213	24	40	228	16	1,040					0
	5:15 PM	31	143	26	8	152	32	51	246	27	22	195	15	946					0
	5:30 PM	7	163	38	8	134	37	38	257	20	23	171	12	905					0
	5:45 PM	17	103	38	14	125	36	27	243	35	21	210	6	871					0
	VOLUMES	180	1,128	275	123	1,219	289	337	1,850	318	215	1,661	120	7,712	0	0	0	0	0
	APPROACH %	11%	71%	17%	8%	75%	18%	13%	74%	13%	11%	83%	6%						
	APP/DEPART	1,583	/	1,585	1,630	/	1,751	2,505	/	2,248	1,995	/	2,129	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	111	597	134	74	678	147	181	916	165	125	854	60	4,039					
	APPROACH %	13%	71%	16%	8%	75%	16%	14%	73%	13%	12%	82%	6%						
PEAK HR FACTOR	0.829			0.843			0.893			0.919			0.922						
APP/DEPART	841	/	837	899	/	968	1,261	/	1,123	1,038	/	1,112	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 17 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

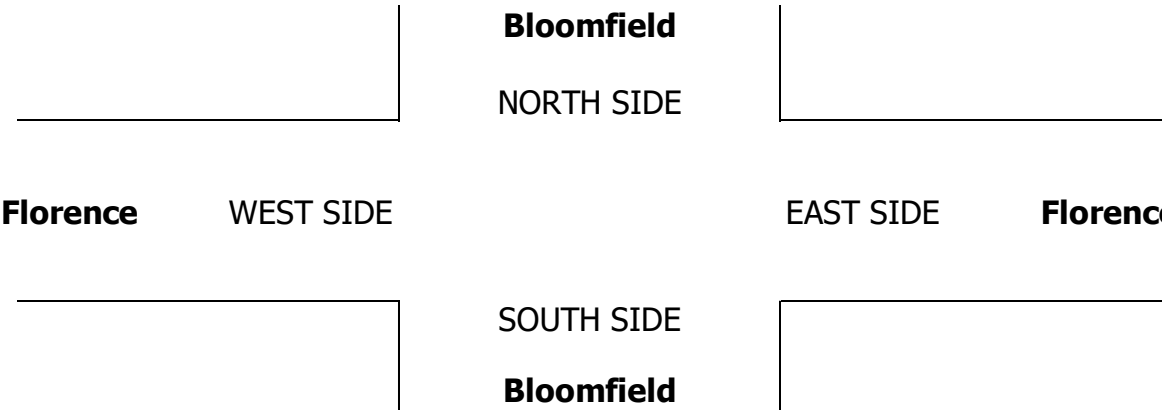
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	8	75	9	7	85	23	19	139	45	28	199	3	640
	7:15 AM	15	75	11	10	114	16	20	161	39	31	272	10	774
	7:30 AM	9	95	10	7	123	15	19	143	27	29	203	15	695
	7:45 AM	10	99	11	9	127	20	47	206	43	46	249	21	888
	8:00 AM	10	120	13	5	135	19	26	145	20	21	175	12	701
	8:15 AM	7	76	14	11	78	8	18	130	17	32	214	10	615
	8:30 AM	5	73	14	7	76	22	30	164	18	20	179	12	620
	8:45 AM	8	78	16	6	29	6	27	140	19	12	155	3	499
	VOLUMES	72	691	98	62	767	129	206	1,228	228	219	1,646	86	5,432
	APPROACH %	8%	80%	11%	6%	80%	13%	12%	74%	14%	11%	84%	4%	
	APP/DEPART	861	/	984	958	/	1,212	1,662	/	1,388	1,951	/	1,848	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	44	389	45	31	499	70	111	655	129	126	899	58	3,058
	APPROACH %	9%	81%	9%	5%	83%	12%	12%	73%	14%	12%	83%	5%	
	PEAK HR FACTOR	0.836			0.943			0.757			0.858			0.861
	APP/DEPART	478	/	558	600	/	754	896	/	732	1,084	/	1,014	0
PM	04:00 PM	9	126	32	9	135	37	32	184	26	23	169	28	810
	4:15 PM	18	105	30	5	109	22	48	211	29	22	207	11	817
	4:30 PM	21	162	38	25	157	50	34	192	55	33	213	8	988
	4:45 PM	13	103	27	10	107	24	44	218	37	29	185	12	809
	5:00 PM	11	132	40	16	184	38	35	191	24	38	209	14	932
	5:15 PM	21	126	21	4	135	23	39	237	17	22	186	9	840
	5:30 PM	7	152	33	6	125	37	31	248	14	21	156	9	839
	5:45 PM	15	93	36	11	106	29	25	229	24	21	183	6	778
	VOLUMES	115	999	257	86	1,058	260	288	1,710	226	209	1,508	97	6,813
	APPROACH %	8%	73%	19%	6%	75%	19%	13%	77%	10%	12%	83%	5%	
	APP/DEPART	1,371	/	1,380	1,404	/	1,491	2,224	/	2,053	1,814	/	1,889	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	66	523	126	53	583	135	147	838	133	120	793	43	3,569
	APPROACH %	9%	73%	18%	7%	75%	17%	13%	75%	12%	13%	83%	4%	
	PEAK HR FACTOR	0.809			0.812			0.939			0.918			0.903
	APP/DEPART	715	/	715	773	/	836	1,123	/	1,019	958	/	999	0

0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	1	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	1	2	5

0	0	1	0	1
0	0	0	0	0
0	2	1	0	3
0	0	2	0	2
0	0	0	2	2
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	6	2	10





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 17 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

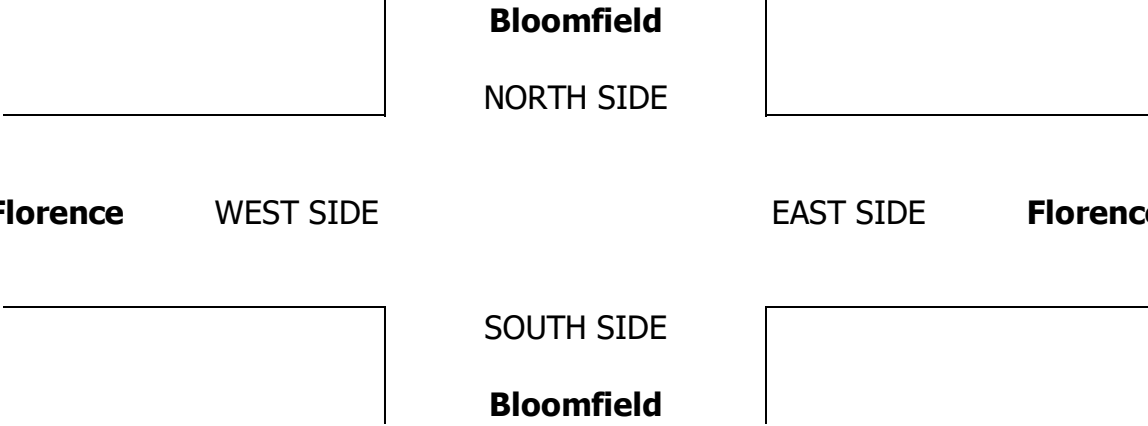
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	3	1	0	13	1	2	8	2	2	6	1	39
	7:15 AM	2	3	1	0	10	2	1	5	4	1	9	3	41
	7:30 AM	3	4	0	2	1	1	2	12	2	0	8	1	36
	7:45 AM	0	7	0	1	4	4	3	6	0	0	13	3	41
	8:00 AM	0	5	0	0	16	0	3	9	3	1	17	0	54
	8:15 AM	2	8	0	1	6	3	4	11	3	2	10	4	54
	8:30 AM	2	4	2	4	10	1	2	14	0	2	19	1	61
	8:45 AM	5	2	2	1	1	0	5	6	0	3	14	2	41
	VOLUMES	14	36	6	9	61	12	22	71	14	11	96	15	367
	APPROACH %	25%	64%	11%	11%	74%	15%	21%	66%	13%	9%	79%	12%	
	APP/DEPART	56	/	73	82	/	86	107	/	86	122	/	122	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	5	19	1	3	31	7	9	32	9	2	47	7	172
PM	APPROACH %	20%	76%	4%	7%	76%	17%	18%	64%	18%	4%	84%	13%	
	PEAK HR FACTOR	0.893			0.641			0.781			0.778			0.796
	APP/DEPART	25	/	35	41	/	42	50	/	36	56	/	59	0
	04:00 PM	1	6	2	1	11	2	6	7	2	0	7	1	46
	4:15 PM	2	6	1	0	4	2	1	7	3	1	10	1	38
	4:30 PM	3	8	0	1	8	1	3	1	2	0	6	0	33
	4:45 PM	0	11	2	3	12	0	3	13	4	1	4	0	53
	5:00 PM	4	9	0	0	10	1	3	12	0	1	9	1	50
	5:15 PM	1	5	3	1	6	2	4	4	1	0	4	2	33
	5:30 PM	0	2	1	1	3	0	1	3	0	1	6	0	18
	5:45 PM	0	3	1	2	5	1	1	5	1	0	5	0	24
	VOLUMES	11	50	10	9	59	9	22	52	13	4	51	5	295
	APPROACH %	15%	70%	14%	12%	77%	12%	25%	60%	15%	7%	85%	8%	
	APP/DEPART	71	/	77	77	/	76	87	/	71	60	/	71	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	8	33	5	5	36	4	13	30	7	2	23	3	169
	APPROACH %	17%	72%	11%	11%	80%	9%	26%	60%	14%	7%	82%	11%	
	PEAK HR FACTOR	0.885			0.750			0.625			0.636			0.797
	APP/DEPART	46	/	49	45	/	45	50	/	40	28	/	35	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 17 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

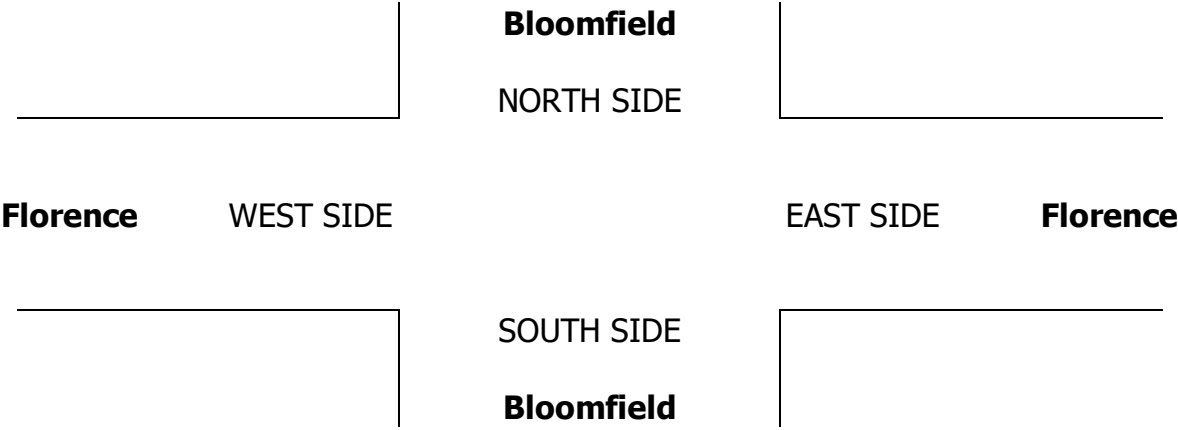
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	0	0	0	0	0	0	0	0	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	3	4	0	2	1	0	7	2	19
	7:15 AM	0	0	0	0	1	1	1	1	0	0	10	0	14
	7:30 AM	1	1	0	0	2	2	1	3	0	0	6	0	16
	7:45 AM	0	1	0	0	1	0	1	3	0	0	1	0	7
	8:00 AM	0	0	0	0	0	1	0	0	0	0	5	0	6
	8:15 AM	0	3	0	0	0	1	0	4	1	0	1	1	11
	8:30 AM	0	1	0	1	2	0	1	8	1	0	6	0	20
	8:45 AM	0	0	0	0	1	0	0	3	1	0	4	1	10
	VOLUMES	1	6	0	1	10	9	4	24	4	0	40	4	103
	APPROACH %	14%	86%	0%	5%	50%	45%	13%	75%	13%	0%	91%	9%	
	APP/DEPART	7	/	14	20	/	14	32	/	25	44	/	50	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	1	2	0	0	4	4	3	7	0	0	22	0	43
	APPROACH %	33%	67%	0%	0%	50%	50%	30%	70%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.375			0.500			0.625			0.550			0.672
	APP/DEPART	3	/	5	8	/	4	10	/	7	22	/	27	0
PM	04:00 PM	1	2	0	0	0	1	1	5	5	0	4	0	19
	4:15 PM	1	1	0	0	2	1	0	0	1	0	4	0	10
	4:30 PM	1	0	0	0	1	0	0	2	1	0	0	0	5
	4:45 PM	1	1	0	0	1	0	0	2	1	0	0	0	6
	5:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	5:15 PM	1	0	0	1	1	0	0	0	1	0	0	0	4
	5:30 PM	0	1	0	0	2	0	1	2	0	0	0	0	6
	5:45 PM	1	0	0	0	0	1	0	0	0	0	1	0	3
	VOLUMES	6	5	0	1	7	3	2	13	9	0	10	0	56
	APPROACH %	55%	45%	0%	9%	64%	27%	8%	54%	38%	0%	100%	0%	
	APP/DEPART	11	/	7	11	/	16	24	/	14	10	/	19	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	3	1	0	1	3	0	0	6	3	0	1	0	18
	APPROACH %	75%	25%	0%	25%	75%	0%	0%	67%	33%	0%	100%	0%	
	PEAK HR FACTOR	0.500			0.500			0.750			0.250			0.750
	APP/DEPART	4	/	1	4	/	6	9	/	7	1	/	4	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
17  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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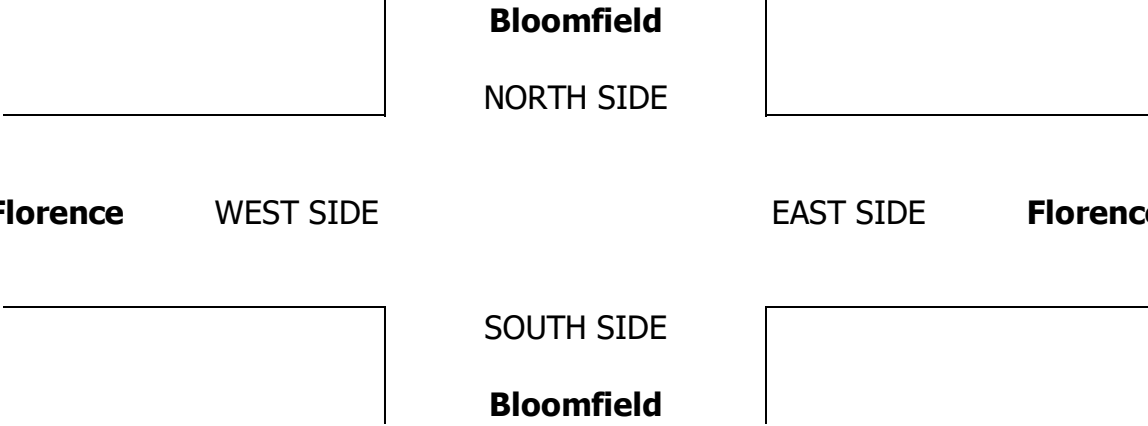
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	0	3	1	1	3	0	0	6	0	15
	7:15 AM	0	1	0	0	2	3	0	4	3	0	2	0	15
	7:30 AM	0	1	0	0	4	0	1	1	2	0	1	2	12
	7:45 AM	1	1	0	0	3	1	0	4	4	0	1	0	15
	8:00 AM	2	0	1	0	1	1	2	6	0	0	4	1	18
	8:15 AM	1	4	0	1	3	2	1	6	2	0	3	0	23
	8:30 AM	1	1	0	0	3	0	2	2	2	0	0	0	11
	8:45 AM	1	2	0	0	1	3	2	5	2	1	4	0	21
	VOLUMES	6	11	1	1	20	11	9	31	15	1	21	3	130
	APPROACH %	33%	61%	6%	3%	63%	34%	16%	56%	27%	4%	84%	12%	
	APP/DEPART	18	/	23	32	/	36	55	/	33	25	/	38	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	3	1	0	10	5	3	15	9	0	8	3	60
PM	APPROACH %	43%	43%	14%	0%	67%	33%	11%	56%	33%	0%	73%	27%	
	PEAK HR FACTOR	0.583			0.750			0.844			0.550			0.833
	APP/DEPART	7	/	9	15	/	19	27	/	16	11	/	16	0
	04:00 PM	1	1	0	2	2	0	0	2	5	0	1	0	14
	4:15 PM	2	2	0	2	2	0	0	1	3	0	2	0	14
	4:30 PM	4	0	0	2	2	0	0	2	2	0	3	0	15
	4:45 PM	1	1	0	0	4	0	1	4	1	0	3	3	18
	5:00 PM	2	2	0	1	3	0	0	0	0	0	1	0	9
	5:15 PM	2	3	0	0	2	2	2	1	2	0	1	1	16
	5:30 PM	0	2	1	0	0	0	1	0	2	0	2	1	9
	5:45 PM	0	1	0	0	3	1	0	2	3	0	5	0	15
	VOLUMES	12	12	1	7	18	3	4	12	18	0	18	5	110
	APPROACH %	48%	48%	4%	25%	64%	11%	12%	35%	53%	0%	78%	22%	
	APP/DEPART	25	/	21	28	/	36	34	/	20	23	/	33	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	9	6	0	3	11	2	3	7	5	0	8	4	58
	APPROACH %	60%	40%	0%	19%	69%	13%	20%	47%	33%	0%	67%	33%	
	PEAK HR FACTOR	0.750			1.000			0.625			0.500			0.806
	APP/DEPART	15	/	13	16	/	16	15	/	10	12	/	19	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
17  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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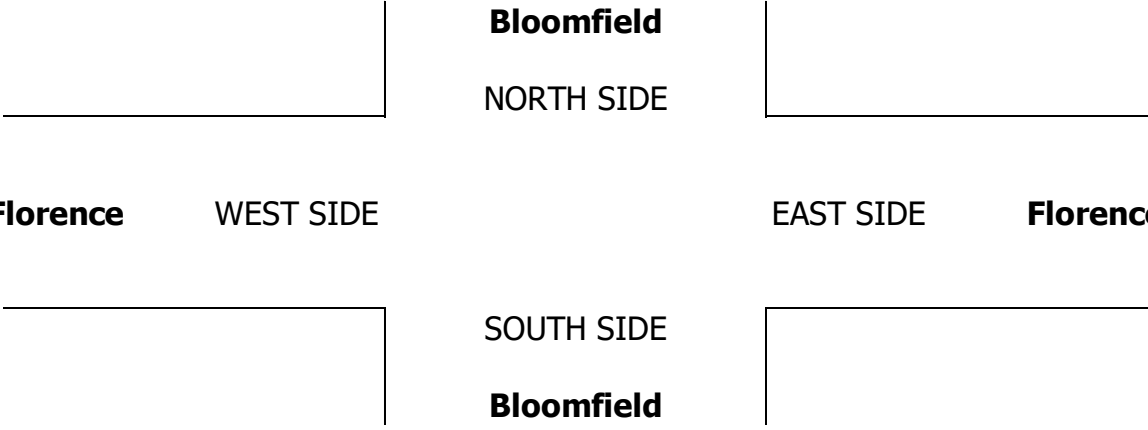
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<div>DATE: 4/20/21 TUESDAY</div>	<div>LOCATION: NORTH &amp; SOUTH: EAST &amp; WEST:</div>	<div>Santa Fe Springs Bloomfield Florence</div>	<div>PROJECT #: LOCATION #: CONTROL:</div>	<div>SC2721 17 SIGNAL</div>		
<div>CLASS 6:</div>	<div>NOTES:</div>		<div>AM</div>	<div></div>	<div>▲</div>	<div></div>
<div>BUSES</div>			<div>PM</div>		<div>N</div>	
			<div>MD</div>	<div>◀ W</div>		<div>E ▶</div>
			<div>OTHER</div>	<div></div>	<div>S</div>	<div></div>
			<div>OTHER</div>		<div>▼</div>	

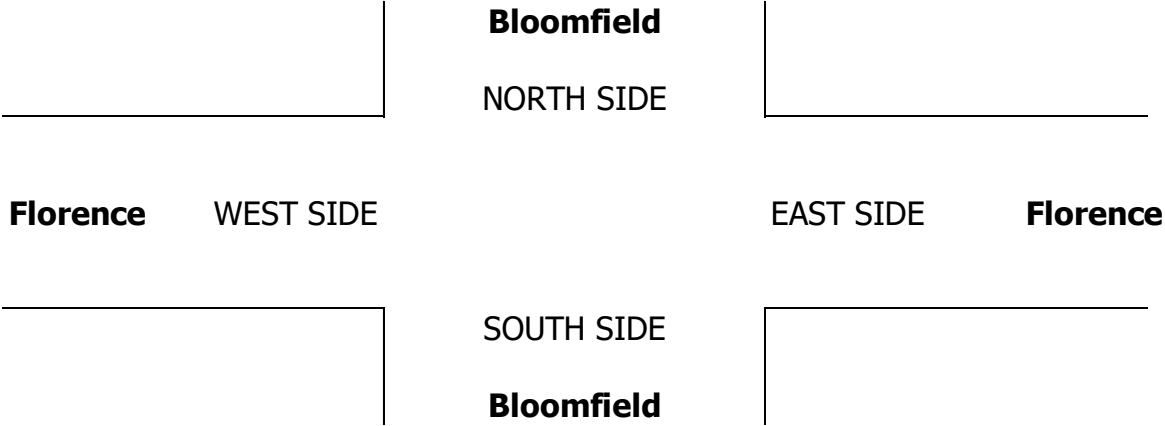
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	0	0	0	0	0	0	1	0	2	
	7:15 AM	0	0	0	0	1	0	0	1	0	0	0	2	
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	
	7:45 AM	0	1	0	0	2	0	0	0	0	3	0	6	
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	2	0	0	0	2	
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	
	8:45 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
	VOLUMES	0	3	0	0	3	0	0	4	0	0	6	0	16
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	3	/	3	3	/	3	4	/	4	6	/	6	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	1	0	0	3	0	0	1	0	0	4	0	9	
APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%		
PEAK HR FACTOR	0.250			0.375			0.250			0.333			0.375	
APP/DEPART	1	/	1	3	/	3	1	/	1	4	/	4	0	
PM	04:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	1	0	0	1	0	0	0	0	1	0	3	
	VOLUMES	0	4	0	0	2	0	0	0	0	1	0	7	
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0%		
	APP/DEPART	4	/	4	2	/	2	0	/	0	1	/	1	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	2	0	0	1	0	0	0	0	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.500			0.250			0.000			0.000			0.375	
APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0	0	

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
18  
SIGNAL

NOTES:

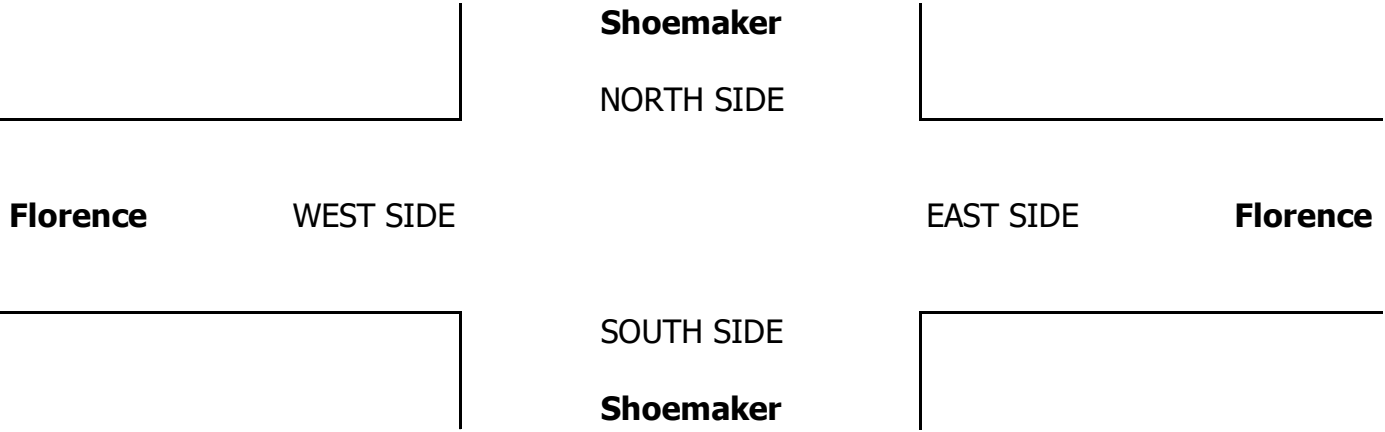
AM  
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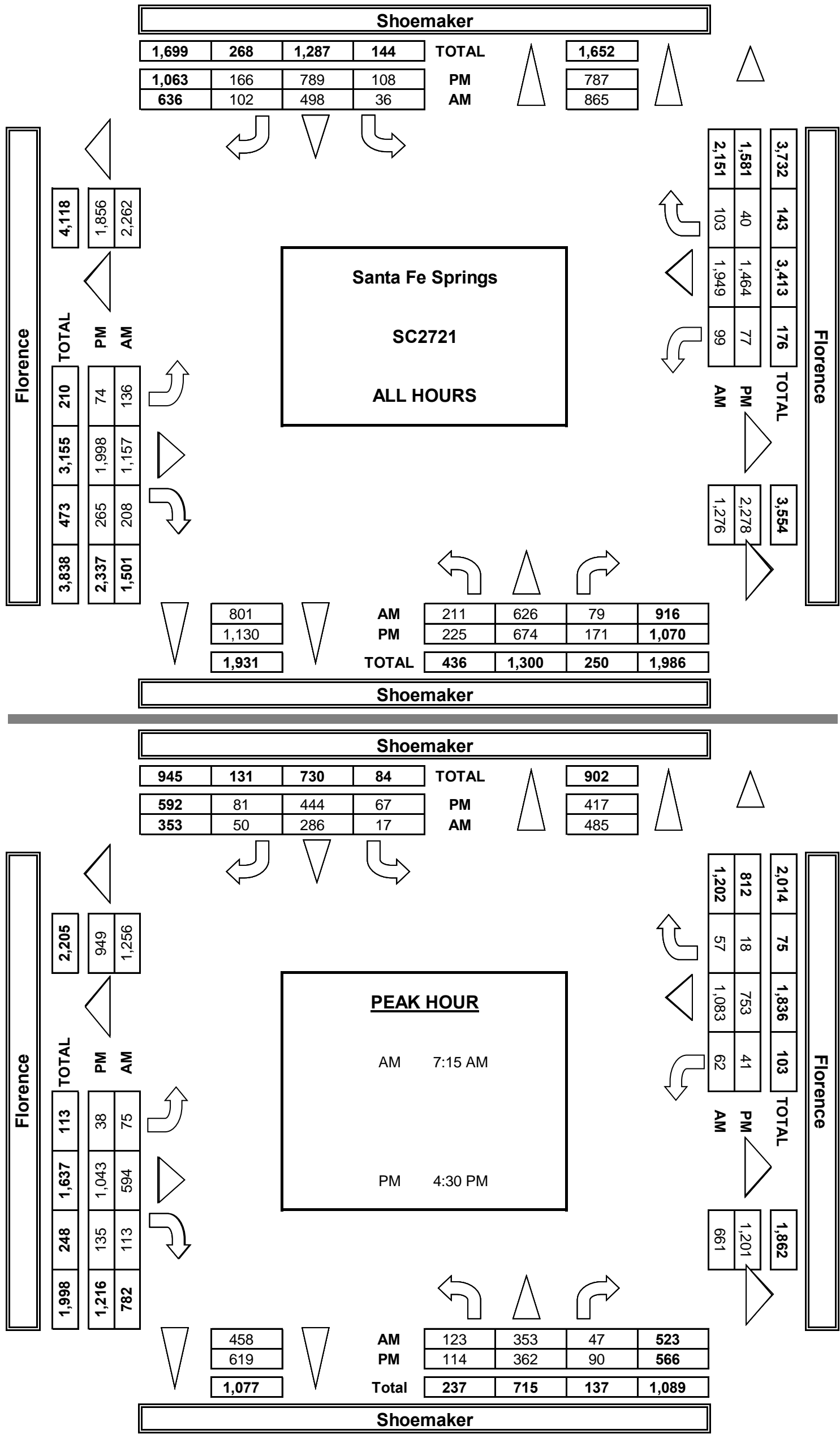
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Shoemaker			Shoemaker			Florence			Florence								
LANES:		NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	17	65	8	5	47	13	19	136	20	7	307	11	655	0	0	0	0	0
	7:15 AM	26	77	8	4	63	9	11	136	25	7	305	20	691	0	0	0	1	1
	7:30 AM	31	88	5	4	60	10	25	145	31	14	248	11	672	0	0	0	1	1
	7:45 AM	36	99	15	5	105	18	26	153	30	29	275	17	808	0	0	0	0	0
	8:00 AM	30	89	19	4	58	13	13	160	27	12	255	9	689	0	0	0	1	1
	8:15 AM	24	73	5	4	66	18	19	114	25	11	203	12	574	0	0	0	1	1
	8:30 AM	27	65	5	6	50	9	13	165	27	8	199	14	588	0	0	0	0	0
	8:45 AM	20	70	14	4	49	12	10	148	23	11	157	9	527	0	0	0	0	0
	VOLUMES	211	626	79	36	498	102	136	1,157	208	99	1,949	103	5,204	0	0	0	4	4
	APPROACH %	23%	68%	9%	6%	78%	16%	9%	77%	14%	5%	91%	5%						
APP/DEPART	916	/	865	636	/	801	1,501	/	1,276	2,151	/	2,262	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	123	353	47	17	286	50	75	594	113	62	1,083	57	2,860						
APPROACH %	24%	67%	9%	5%	81%	14%	10%	76%	14%	5%	90%	5%							
PEAK HR FACTOR	0.872			0.689			0.935			0.905			0.885						
APP/DEPART	523	/	485	353	/	458	782	/	661	1,202	/	1,256	0						
PM	04:00 PM	22	83	24	9	91	30	10	219	31	8	199	3	729	0	0	0	0	0
	4:15 PM	31	93	20	12	108	25	7	256	32	8	178	7	777	0	0	0	0	0
	4:30 PM	24	89	24	17	148	33	10	243	27	12	189	5	821	0	0	1	0	1
	4:45 PM	31	85	19	21	99	12	12	257	35	8	159	4	742	0	0	0	0	0
	5:00 PM	35	102	28	18	104	19	8	242	31	11	209	5	812	0	0	0	1	1
	5:15 PM	24	86	19	11	93	17	8	301	42	10	196	4	811	0	0	0	0	0
	5:30 PM	30	73	20	16	71	18	14	235	32	7	167	5	688	0	0	0	0	0
	5:45 PM	28	63	17	4	75	12	5	245	35	13	167	7	671	0	0	0	0	0
	VOLUMES	225	674	171	108	789	166	74	1,998	265	77	1,464	40	6,051	0	0	1	1	2
	APPROACH %	21%	63%	16%	10%	74%	16%	3%	85%	11%	5%	93%	3%						
	APP/DEPART	1,070	/	787	1,063	/	1,130	2,337	/	2,278	1,581	/	1,856	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	114	362	90	67	444	81	38	1,043	135	41	753	18	3,186					
	APPROACH %	20%	64%	16%	11%	75%	14%	3%	86%	11%	5%	93%	2%						
	PEAK HR FACTOR	0.858			0.747			0.866			0.902			0.970					
APP/DEPART	566	/	417	592	/	619	1,216	/	1,201	812	/	949	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	2	0	2	5	9	2	0	2	1	5	0	0	0	4	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	1	0	0	3	1	1	0	0	2	1	0	0	0	1
	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
PM	4:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	1	0	1	0	1	0	0	0	0	0
	5:30 PM	1	0	0	0	1	0	0	0	0	1	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	3	0	0	7	2	2	0	0	4	1	0	0	3

AimTD LLC  
TURNING MOVEMENT COUNTS



PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Shoemaker Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 18 SIGNAL
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PCE Adjusted	NOTES:							AM PM MD OTHER OTHER	<div>▲ N  S ▼</div>	<div>◀ W  E ▶</div>	
	Class	1	2	3	4	5	6				
	Factor	1	1.5	2	3	2	2				

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Shoemaker			Shoemaker			Florence			Florence								
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	23	76	10	7	59	17	21	146	22	10	319	15	723					0
	7:15 AM	33	87	11	5	77	11	12	144	32	10	314	23	755					0
	7:30 AM	35	96	5	4	72	14	34	152	34	14	259	11	729					0
	7:45 AM	37	111	16	7	127	20	30	159	36	30	287	17	874					0
	8:00 AM	35	106	22	6	66	18	15	165	36	14	274	10	764					0
	8:15 AM	28	83	7	5	76	20	24	127	35	11	213	13	639					0
	8:30 AM	38	77	6	7	69	13	14	183	34	8	209	15	671					0
	8:45 AM	23	88	17	5	59	14	11	155	29	13	166	9	585					0
	VOLUMES	251	722	92	45	604	125	159	1,228	256	109	2,040	111	5,739	0	0	0	0	0
	APPROACH %	24%	68%	9%	6%	78%	16%	10%	75%	16%	5%	90%	5%						
APP/DEPART	1,064	/	992	774	/	968	1,642	/	1,364	2,259	/	2,415	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	140	399	53	22	342	62	91	619	137	67	1,133	60	3,121						
APPROACH %	24%	67%	9%	5%	80%	15%	11%	73%	16%	5%	90%	5%							
PEAK HR FACTOR	0.906			0.692			0.944			0.912			0.893						
APP/DEPART	591	/	549	425	/	545	846	/	693	1,260	/	1,335	0						
PM	04:00 PM	33	99	25	10	108	35	10	232	39	10	210	4	813					0
	4:15 PM	33	108	22	13	134	34	10	263	40	12	187	9	861					0
	4:30 PM	27	101	25	17	168	35	13	251	30	15	193	6	879					0
	4:45 PM	34	101	21	24	115	13	13	264	44	9	164	4	805					0
	5:00 PM	37	113	29	20	115	20	9	251	36	13	217	7	866					0
	5:15 PM	33	103	21	12	108	23	8	308	54	14	204	4	890					0
	5:30 PM	36	84	20	17	89	23	15	238	42	7	176	7	752					0
	5:45 PM	35	76	22	4	91	14	5	255	41	13	174	7	736					0
	VOLUMES	266	784	183	116	927	197	82	2,061	325	93	1,523	47	6,601	0	0	0	0	0
	APPROACH %	22%	64%	15%	9%	75%	16%	3%	84%	13%	6%	92%	3%						
	APP/DEPART	1,233	/	912	1,239	/	1,344	2,467	/	2,359	1,662	/	1,986	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	130	417	96	73	506	91	43	1,073	164	51	778	21	3,440					
APPROACH %	20%	65%	15%	11%	76%	14%	3%	84%	13%	6%	92%	2%							
PEAK HR FACTOR	0.897			0.760			0.864			0.897			0.966						
APP/DEPART	643	/	480	669	/	720	1,279	/	1,241	849	/	999	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Shoemaker Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 18 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

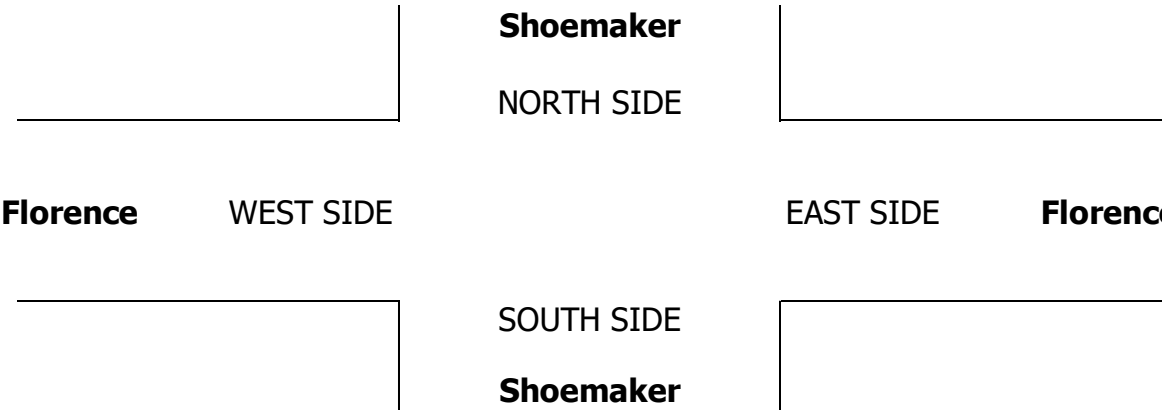
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Florence			Florence			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	12	51	7	2	33	7	17	122	19	5	290	7	572
	7:15 AM	18	62	4	3	48	6	9	126	21	5	291	18	611
	7:30 AM	26	81	5	4	50	6	17	132	27	14	235	11	608
	7:45 AM	34	86	14	4	82	16	22	142	25	28	254	17	724
	8:00 AM	24	68	16	3	50	7	12	150	19	9	233	8	599
	8:15 AM	20	62	4	3	55	14	15	102	17	11	188	11	502
	8:30 AM	19	56	4	4	31	5	11	143	17	8	182	13	493
	8:45 AM	18	51	12	3	35	9	9	137	18	9	144	9	454
	VOLUMES	171	517	66	26	384	70	112	1,054	163	89	1,817	94	4,563
	APPROACH %	23%	69%	9%	5%	80%	15%	8%	79%	12%	4%	91%	5%	
	APP/DEPART	754	/	723	480	/	632	1,329	/	1,150	2,000	/	2,058	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	102	297	39	14	230	35	60	550	92	53	1,013	54	2,542
	APPROACH %	23%	68%	9%	5%	82%	13%	9%	78%	13%	5%	90%	5%	
PM	PEAK HR FACTOR	0.817			0.684			0.929			0.894			0.878
	APP/DEPART	438	/	411	279	/	375	702	/	606	1,123	/	1,150	0
	04:00 PM	16	64	23	8	77	26	10	203	21	7	183	2	640
	4:15 PM	29	76	18	10	87	16	5	244	26	4	165	4	684
	4:30 PM	19	76	23	17	130	32	8	233	24	9	183	4	758
	4:45 PM	29	69	18	18	83	10	11	244	28	7	152	4	673
	5:00 PM	31	89	27	17	88	17	6	228	28	10	197	4	742
	5:15 PM	19	73	18	10	80	14	8	289	34	8	186	4	743
	5:30 PM	26	66	20	15	55	14	13	229	25	7	154	4	628
	5:45 PM	24	52	14	4	64	11	5	233	29	13	157	7	613
	VOLUMES	193	565	161	99	664	140	66	1,903	215	65	1,377	33	5,481
	APPROACH %	21%	61%	18%	11%	74%	16%	3%	87%	10%	4%	93%	2%	
	APP/DEPART	919	/	663	903	/	943	2,184	/	2,164	1,475	/	1,711	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	98	307	86	62	381	73	32	994	114	33	718	16	2,916
	APPROACH %	20%	63%	18%	12%	74%	14%	3%	87%	10%	4%	93%	2%	
	PEAK HR FACTOR	0.835			0.721			0.862			0.910			0.962
	APP/DEPART	491	/	355	516	/	528	1,141	/	1,143	768	/	890	0

0	0	0	0	0
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0	0	0	1	1
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
18  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Florence			Florence			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	11	0	2	8	5	1	11	0	0	12	2	54
	7:15 AM	5	11	3	1	10	2	2	7	1	1	11	1	55
	7:30 AM	4	4	0	0	4	1	4	13	3	0	8	0	41
	7:45 AM	2	7	1	0	12	1	3	11	2	0	19	0	58
	8:00 AM	4	15	1	0	5	4	0	10	5	3	16	1	64
	8:15 AM	3	6	0	1	6	4	1	7	4	0	13	1	46
	8:30 AM	2	4	1	2	12	3	2	15	7	0	16	1	65
	8:45 AM	1	10	1	1	11	2	1	9	3	1	10	0	50
	VOLUMES	23	68	7	7	68	22	14	83	25	5	105	6	433
	APPROACH %	23%	69%	7%	7%	70%	23%	11%	68%	20%	4%	91%	5%	
	APP/DEPART	98	/	88	97	/	98	122	/	97	116	/	150	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	15	37	5	1	31	8	9	41	11	4	54	2	218
	APPROACH %	26%	65%	9%	3%	78%	20%	15%	67%	18%	7%	90%	3%	
	PEAK HR FACTOR	0.713			0.769			0.763			0.750			0.852
	APP/DEPART	57	/	48	40	/	46	61	/	47	60	/	77	0
PM	04:00 PM	0	15	1	1	6	2	0	12	8	0	12	1	58
	4:15 PM	1	10	1	2	11	6	1	11	1	1	11	3	59
	4:30 PM	4	9	1	0	10	0	0	7	2	2	4	1	40
	4:45 PM	1	10	0	2	10	2	1	13	2	0	6	0	47
	5:00 PM	4	8	0	0	12	2	2	12	1	0	11	0	52
	5:15 PM	1	5	0	1	7	0	0	10	2	0	8	0	34
	5:30 PM	1	2	0	1	6	2	1	6	2	0	11	0	32
	5:45 PM	0	4	1	0	3	0	0	8	4	0	7	0	27
	VOLUMES	12	63	4	7	65	14	5	79	22	3	70	5	349
	APPROACH %	15%	80%	5%	8%	76%	16%	5%	75%	21%	4%	90%	6%	
	APP/DEPART	79	/	73	86	/	90	106	/	90	78	/	96	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	10	32	1	3	39	4	3	42	7	2	29	1	173
	APPROACH %	23%	74%	2%	7%	85%	9%	6%	81%	13%	6%	91%	3%	
	PEAK HR FACTOR	0.768			0.821			0.813			0.727			0.832
	APP/DEPART	43	/	36	46	/	48	52	/	46	32	/	43	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
18  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Florence			Florence			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	1	0	1	3	0	1	2	0	1	3	1	14
	7:15 AM	2	4	1	0	1	1	0	2	0	0	3	0	14
	7:30 AM	0	0	0	0	1	1	1	0	1	0	3	0	7
	7:45 AM	0	4	0	0	3	0	0	0	1	1	1	0	10
	8:00 AM	1	1	1	0	1	1	0	0	0	0	1	0	6
	8:15 AM	0	2	0	0	3	0	0	1	0	0	1	0	7
	8:30 AM	2	0	0	0	1	0	0	3	3	0	0	0	9
	8:45 AM	0	2	0	0	2	1	0	2	0	1	2	0	10
	VOLUMES	6	14	2	1	15	4	2	10	5	3	14	1	77
	APPROACH %	27%	64%	9%	5%	75%	20%	12%	59%	29%	17%	78%	6%	
	APP/DEPART	22	/	17	20	/	23	17	/	13	18	/	24	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	3	9	2	0	6	3	1	2	2	1	8	0	37
	APPROACH %	21%	64%	14%	0%	67%	33%	20%	40%	40%	11%	89%	0%	
	PEAK HR FACTOR	0.500			0.750			0.625			0.750			0.661
	APP/DEPART	14	/	10	9	/	9	5	/	4	9	/	14	0
	04:00 PM	1	0	0	0	2	0	0	1	0	0	3	0	7
	4:15 PM	1	4	1	0	0	0	0	1	3	3	1	0	14
	4:30 PM	1	1	0	0	1	0	1	2	0	0	2	0	8
	4:45 PM	0	1	0	0	1	0	0	0	2	1	0	0	5
	5:00 PM	0	3	1	0	3	0	0	0	0	0	0	0	7
	5:15 PM	0	2	0	0	1	0	0	2	1	0	0	0	6
	5:30 PM	1	0	0	0	5	0	0	0	1	0	1	0	8
	5:45 PM	1	3	0	0	2	0	0	1	0	0	2	0	9
	VOLUMES	5	14	2	0	15	0	1	7	7	4	9	0	64
	APPROACH %	24%	67%	10%	0%	100%	0%	7%	47%	47%	31%	69%	0%	
	APP/DEPART	21	/	15	15	/	26	15	/	9	13	/	14	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	7	1	0	6	0	1	4	3	1	2	0	26
	APPROACH %	11%	78%	11%	0%	100%	0%	13%	50%	38%	33%	67%	0%	
	PEAK HR FACTOR	0.563			0.500			0.667			0.375			0.813
	APP/DEPART	9	/	8	6	/	10	8	/	5	3	/	3	0

0	0	0	0	0
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Shoemaker

NORTH SIDE

Florence

WEST SIDE

EAST SIDE

Florence

SOUTH SIDE

Shoemaker

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
18  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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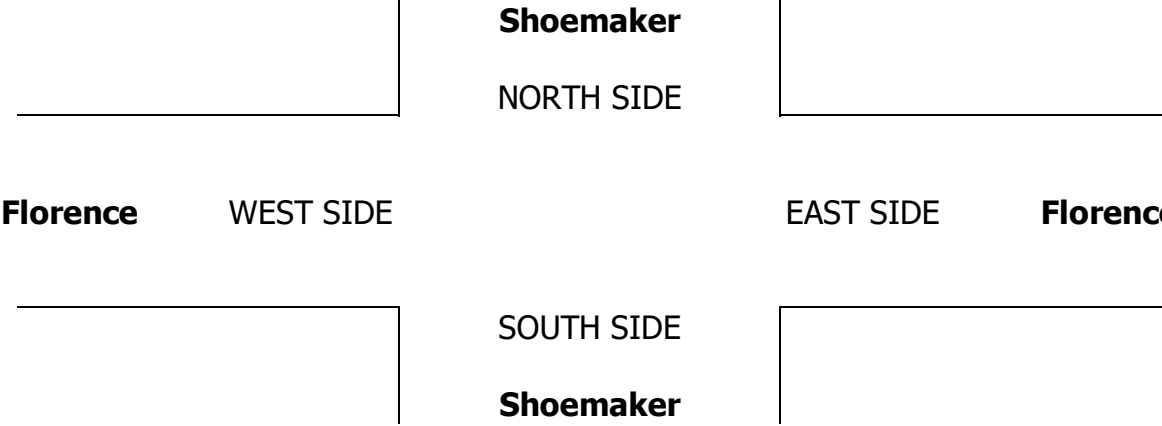
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	1	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	2	1	0	2	0	0	1	1	1	1	1	12
	7:15 AM	1	0	0	0	4	0	0	1	3	1	0	1	11
	7:30 AM	1	3	0	0	4	0	3	0	0	0	2	0	13
	7:45 AM	0	2	0	1	5	0	1	0	2	0	0	0	11
	8:00 AM	1	3	0	1	2	1	1	0	3	0	5	0	17
	8:15 AM	1	2	1	0	2	0	1	4	4	0	1	0	16
	8:30 AM	4	5	0	0	6	1	0	3	0	0	1	0	20
	8:45 AM	1	4	1	0	1	0	0	0	2	0	1	0	10
	VOLUMES	11	21	3	2	26	2	6	9	15	2	11	2	110
	APPROACH %	31%	60%	9%	7%	87%	7%	20%	30%	50%	13%	73%	13%	
	APP/DEPART	35	/	29	30	/	43	30	/	14	15	/	24	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	8	0	2	15	1	5	1	8	1	7	1	52
	APPROACH %	27%	73%	0%	11%	83%	6%	36%	7%	57%	11%	78%	11%	
	PEAK HR FACTOR	0.688			0.750			0.875			0.450			0.765
	APP/DEPART	11	/	14	18	/	24	14	/	3	9	/	11	0
PM	04:00 PM	5	4	0	0	6	2	0	3	2	1	1	0	24
	4:15 PM	0	3	0	0	10	3	1	0	2	0	1	0	20
	4:30 PM	0	3	0	0	7	1	1	1	1	1	0	0	15
	4:45 PM	1	5	1	1	5	0	0	0	3	0	1	0	17
	5:00 PM	0	2	0	1	1	0	0	1	2	1	1	1	10
	5:15 PM	4	6	1	0	5	3	0	0	5	2	2	0	28
	5:30 PM	2	5	0	0	5	2	0	0	4	0	1	1	20
	5:45 PM	3	4	2	0	6	1	0	2	2	0	0	0	20
	VOLUMES	15	32	4	2	45	12	2	7	21	5	7	2	154
	APPROACH %	29%	63%	8%	3%	76%	20%	7%	23%	70%	36%	50%	14%	
	APP/DEPART	51	/	36	59	/	71	30	/	13	14	/	34	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	5	16	2	2	18	4	1	2	11	4	4	1	70
	APPROACH %	22%	70%	9%	8%	75%	17%	7%	14%	79%	44%	44%	11%	
	PEAK HR FACTOR	0.523			0.750			0.700			0.563			0.625
	APP/DEPART	23	/	18	24	/	33	14	/	6	9	/	13	0

0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
18  
SIGNAL

CLASS 5:  
RV

NOTES:

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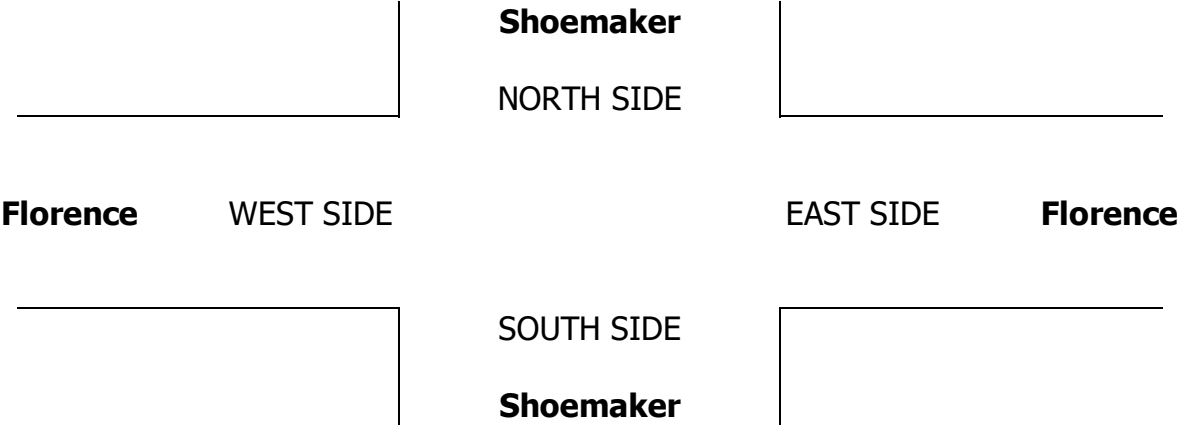
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Shoemaker			Shoemaker			Florence			Florence			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

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0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Shoemaker  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
18  
SIGNAL

CLASS 6:

NOTES:

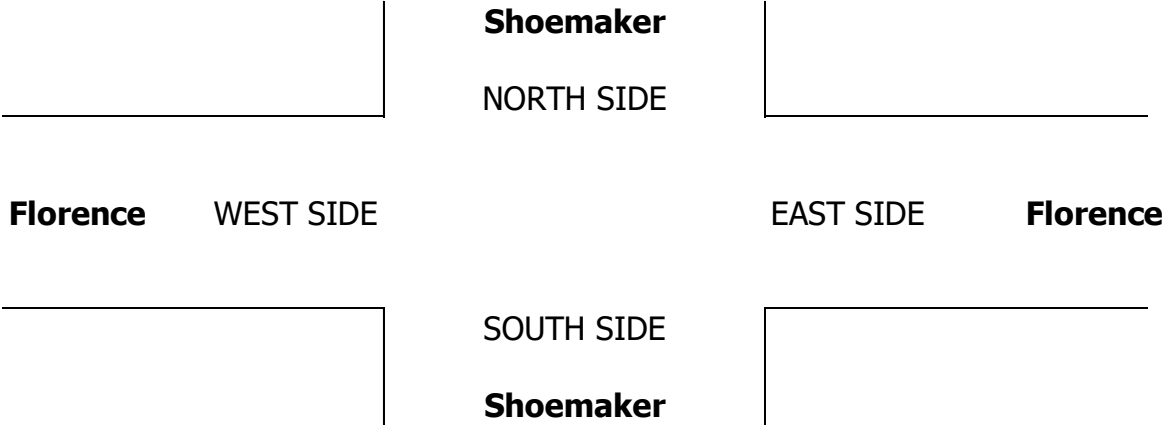
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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Shoemaker			Shoemaker			Florence			Florence				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					
7:00 AM	0	0	0	0	1	1	0	0	0	0	1	0	3	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	2	0	0	0	0	0	0	3	0	0	0	0	0
7:45 AM	0	0	0	0	3	1	0	0	0	0	1	0	5	0	0	0	0	0
8:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
VOLUMES	0	6	1	0	5	4	2	1	0	0	2	0	21	0	0	0	0	0
APPROACH %	0%	86%	14%	0%	56%	44%	67%	33%	0%	0%	100%	0%						
APP/DEPART	7	/	8	9	/	5	3	/	2	2	/	6	0					
BEGIN PEAK HR	7:15 AM												11					
VOLUMES	0	2	1	0	4	3	0	0	0	0	1	0						
APPROACH %	0%	67%	33%	0%	57%	43%	0%	0%	0%	0%	100%	0%						
PEAK HR FACTOR	0.250			0.438			0.000			0.250			0.550					
APP/DEPART	3	/	2	7	/	4	0	/	1	1	/	4	0					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0					
BEGIN PEAK HR	4:30 PM												1					
VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0						
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%						
PEAK HR FACTOR	0.000			0.000			0.250			0.000			0.250					
APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 27, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
19  
SIGNAL

NOTES:

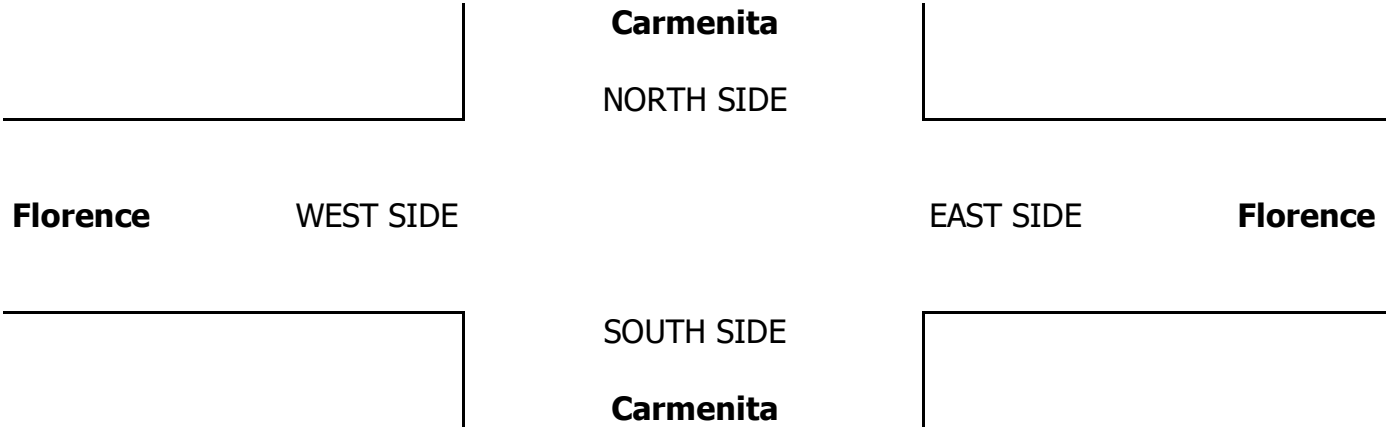
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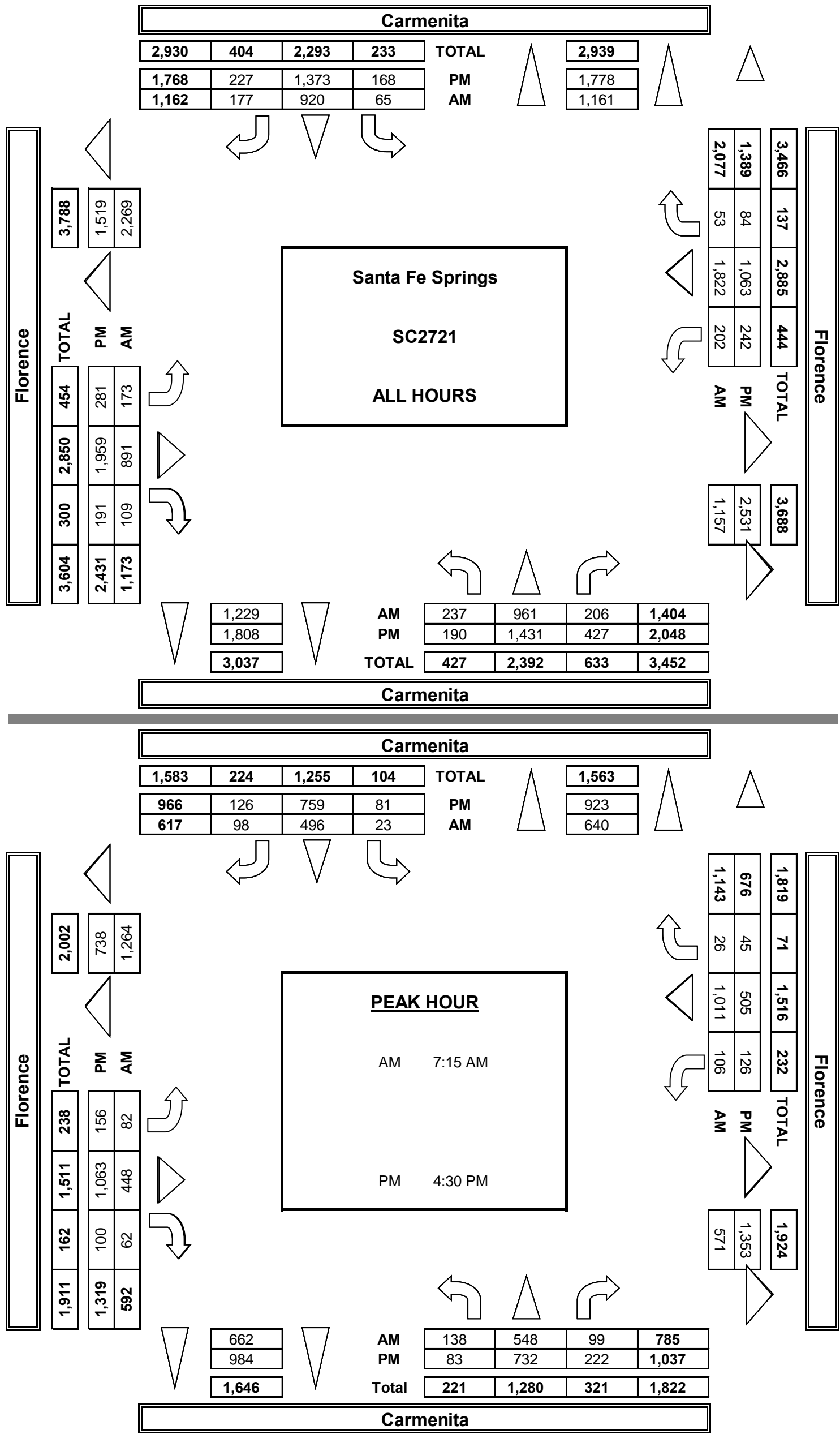
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Carmenita			Carmenita			Florence			Florence				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	0	0	0	0	
AM	7:00 AM	36	80	22	6	116	24	14	94	12	30	250	7	691	0	1	2	0	3
	7:15 AM	29	110	23	6	122	27	22	114	13	27	235	5	733	0	0	4	0	4
	7:30 AM	38	135	18	5	111	24	21	117	13	26	278	3	789	0	0	3	0	3
	7:45 AM	37	165	33	6	148	26	15	98	9	23	241	5	806	0	0	2	1	3
	8:00 AM	34	138	25	6	115	21	24	119	27	30	257	13	809	0	1	8	1	10
	8:15 AM	26	119	24	16	106	18	22	95	13	30	198	9	676	0	2	8	0	10
	8:30 AM	24	106	24	10	96	19	27	118	6	17	209	3	659	0	1	3	0	4
	8:45 AM	13	108	37	10	106	18	28	136	16	19	154	8	653	1	3	4	1	9
	VOLUMES	237	961	206	65	920	177	173	891	109	202	1,822	53	5,816	1	8	34	3	46
	APPROACH %	17%	68%	15%	6%	79%	15%	15%	76%	9%	10%	88%	3%						
APP/DEPART	1,404	/	1,161	1,162	/	1,229	1,173	/	1,157	2,077	/	2,269	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	138	548	99	23	496	98	82	448	62	106	1,011	26	3,137						
APPROACH %	18%	70%	13%	4%	80%	16%	14%	76%	10%	9%	88%	2%							
PEAK HR FACTOR	0.835			0.857			0.871			0.931			0.969						
APP/DEPART	785	/	640	617	/	662	592	/	571	1,143	/	1,264	0						
PM	04:00 PM	25	178	43	25	142	24	34	213	19	32	139	7	881	0	5	7	0	12
	4:15 PM	24	165	49	14	155	29	29	233	26	27	146	15	912	2	1	2	1	6
	4:30 PM	18	205	47	15	202	27	38	251	28	38	135	10	1,014	0	4	6	0	10
	4:45 PM	22	174	57	18	178	24	40	284	26	33	123	16	995	0	3	3	1	7
	5:00 PM	25	194	65	27	175	35	31	255	18	24	115	10	974	0	5	6	0	11
	5:15 PM	18	159	53	21	204	40	47	273	28	31	132	9	1,015	0	2	9	0	11
	5:30 PM	35	188	56	30	167	27	37	229	22	21	135	12	959	1	4	7	0	12
	5:45 PM	23	168	57	18	150	21	25	221	24	36	138	5	886	1	1	3	0	5
	VOLUMES	190	1,431	427	168	1,373	227	281	1,959	191	242	1,063	84	7,636	4	25	43	2	74
	APPROACH %	9%	70%	21%	10%	78%	13%	12%	81%	8%	17%	77%	6%						
APP/DEPART	2,048	/	1,778	1,768	/	1,808	2,431	/	2,531	1,389	/	1,519	0						
BEGIN PEAK HR	4:30 PM																		
VOLUMES	83	732	222	81	759	126	156	1,063	100	126	505	45	3,998						
APPROACH %	8%	71%	21%	8%	79%	13%	12%	81%	8%	19%	75%	7%							
PEAK HR FACTOR	0.913			0.911			0.942			0.923			0.985						
APP/DEPART	1,037	/	923	966	/	984	1,319	/	1,353	676	/	738	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	0	5	6	0	1	0	4	5	0	0	0	1	1
	7:15 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:30 AM	0	4	1	2	7	0	4	1	2	7	0	0	0	0	0
	7:45 AM	1	1	0	3	5	0	1	0	3	4	1	0	0	0	1
	8:00 AM	3	0	2	1	6	3	0	1	0	4	0	0	1	1	2
	8:15 AM	0	3	1	4	8	0	2	0	1	3	0	1	1	3	5
	8:30 AM	1	0	1	1	3	0	0	0	1	1	1	0	1	0	2
	8:45 AM	0	0	2	2	4	0	0	2	1	3	0	0	0	1	1
TOTAL		5	9	7	19	40	3	8	4	13	28	2	1	3	6	12
PM	4:00 PM	0	2	2	3	7	0	2	0	3	5	0	0	2	0	2
	4:15 PM	0	1	1	5	7	0	1	1	5	7	0	0	0	0	0
	4:30 PM	3	3	2	2	10	3	3	2	2	10	0	0	0	0	0
	4:45 PM	0	0	1	2	3	0	0	0	1	1	0	0	1	1	2
	5:00 PM	0	0	1	3	4	0	0	1	2	3	0	0	0	1	1
	5:15 PM	0	0	0	4	4	0	0	0	4	4	0	0	0	0	0
	5:30 PM	1	0	1	1	3	0	0	0	1	1	1	0	1	0	2
5:45 PM	2	1	1	4	8	1	1	0	4	6	1	0	1	0	2	
TOTAL		6	7	9	24	46	4	7	4	22	37	2	0	5	2	9

AimTD LLC  
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

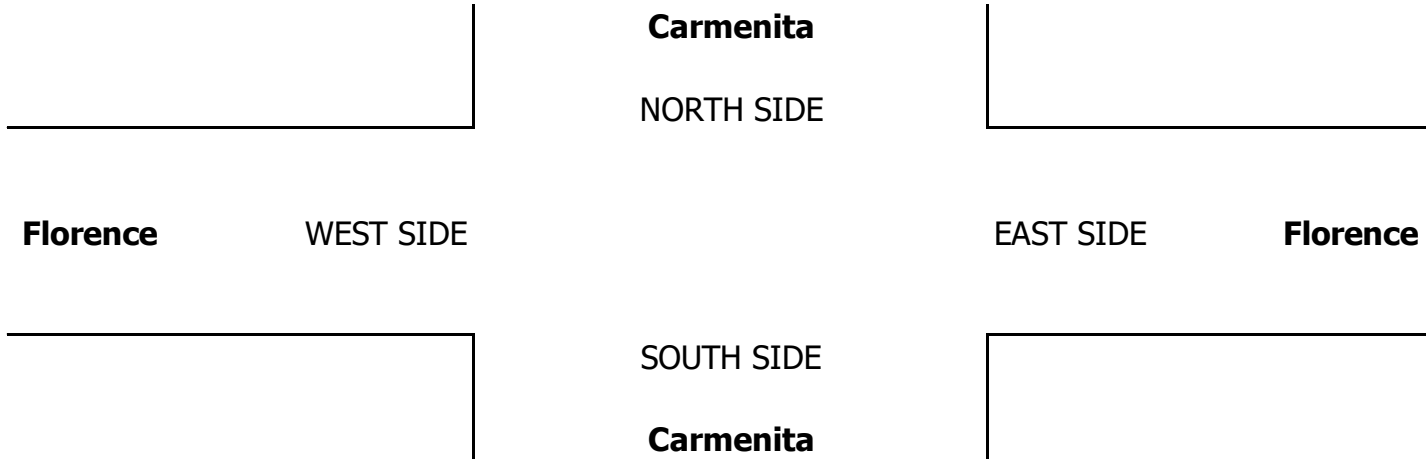
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/27/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 19 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
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									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Florence			Florence								
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL

AM	7:00 AM	38	85	24	9	124	25	15	101	18	32	266	9	742					0
	7:15 AM	31	121	26	7	132	29	24	120	15	31	244	5	783					0
	7:30 AM	41	144	19	5	117	25	26	125	18	27	291	3	839					0
	7:45 AM	40	178	36	7	155	28	16	102	11	26	249	6	851					0
	8:00 AM	36	143	28	7	126	24	26	126	37	30	269	13	862					0
	8:15 AM	26	132	26	18	114	20	27	104	16	33	210	10	734					0
	8:30 AM	28	118	24	11	105	21	30	124	11	18	223	3	713					0
	8:45 AM	14	121	38	11	117	19	30	148	22	20	158	9	704					0
	VOLUMES	252	1,040	219	74	987	189	192	950	147	215	1,907	57	6,226	0	0	0	0	0
	APPROACH %	17%	69%	14%	6%	79%	15%	15%	74%	11%	10%	88%	3%						
APP/DEPART	1,510	/	1,288	1,250	/	1,348	1,288	/	1,242	2,179	/	2,348	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	148	585	108	26	529	105	91	473	81	113	1,052	27	3,334						
APPROACH %	18%	70%	13%	4%	80%	16%	14%	73%	13%	9%	88%	2%							
PEAK HR FACTOR	0.828			0.870			0.853			0.929			0.967						
APP/DEPART	840	/	702	660	/	723	644	/	606	1,191	/	1,304	0						
PM	04:00 PM	27	187	44	27	155	27	36	221	22	33	151	9	936					0
	4:15 PM	26	174	50	14	163	31	31	243	29	29	156	16	959					0
	4:30 PM	19	213	47	16	208	27	40	260	32	39	144	11	1,053					0
	4:45 PM	25	182	59	18	190	27	41	293	27	36	126	17	1,037					0
	5:00 PM	28	202	68	33	182	35	33	263	21	24	123	10	1,020					0
	5:15 PM	19	167	54	21	212	42	51	283	28	31	141	10	1,056					0
	5:30 PM	45	194	57	32	171	30	37	235	22	21	140	13	994					0
	5:45 PM	23	171	59	18	151	22	25	227	26	39	144	5	909					0
	VOLUMES	210	1,488	437	177	1,431	239	293	2,023	205	251	1,123	89	7,963	0	0	0	0	0
	APPROACH %	10%	70%	20%	10%	77%	13%	12%	80%	8%	17%	77%	6%						
	APP/DEPART	2,135	/	1,869	1,846	/	1,886	2,521	/	2,637	1,462	/	1,571	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	90	763	228	87	791	131	164	1,098	107	129	533	47	4,165					
	APPROACH %	8%	71%	21%	9%	78%	13%	12%	80%	8%	18%	75%	7%						
	PEAK HR FACTOR	0.906			0.918			0.946			0.919			0.986					
APP/DEPART	1,080	/	974	1,009	/	1,027	1,369	/	1,413	708	/	753	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/27/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 19 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	▶ E
PASSENGER VEHICLES				

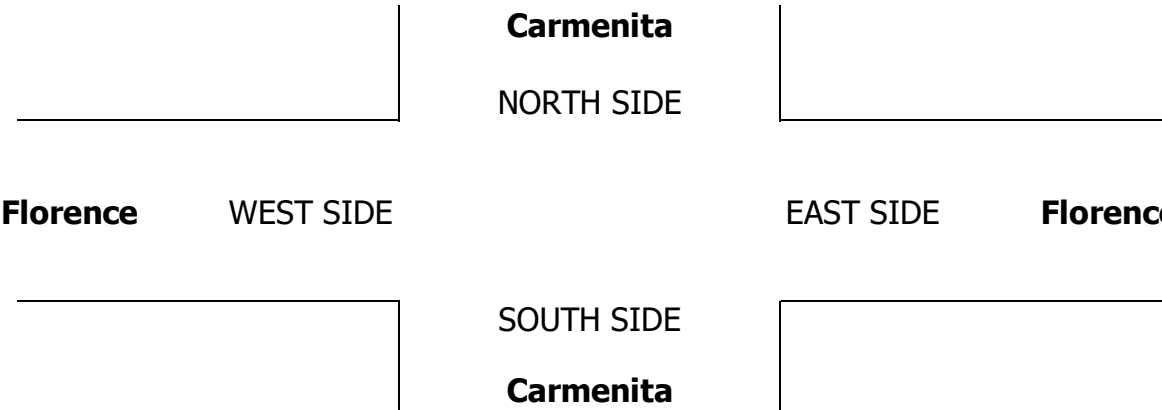
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	33	72	19	3	102	22	13	83	8	27	229	4	615
	7:15 AM	25	94	18	5	105	26	19	106	10	21	223	5	657
	7:30 AM	35	121	17	5	102	23	17	107	7	24	257	3	718
	7:45 AM	34	147	28	5	139	23	14	90	6	20	228	4	738
	8:00 AM	31	133	21	5	101	18	21	109	17	30	236	13	735
	8:15 AM	26	103	21	13	97	14	17	84	10	25	181	7	598
	8:30 AM	20	93	24	8	82	17	23	106	3	16	186	3	581
	8:45 AM	12	88	36	9	92	17	27	115	11	18	146	7	578
	VOLUMES	216	851	184	53	820	160	151	800	72	181	1,686	46	5,220
	APPROACH %	17%	68%	15%	5%	79%	15%	15%	78%	7%	9%	88%	2%	
	APP/DEPART	1,251	/	1,024	1,033	/	1,071	1,023	/	1,034	1,913	/	2,091	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	125	495	84	19	447	90	57	412	40	93	944	25	2,848
	APPROACH %	18%	70%	12%	3%	80%	16%	11%	79%	8%	9%	89%	2%	
	PEAK HR FACTOR	0.842			0.834			0.889			0.937			0.965
	APP/DEPART	704	/	578	557	/	580	523	/	517	1,064	/	1,173	0
PM	04:00 PM	24	165	41	23	128	19	30	201	16	30	123	5	805
	4:15 PM	23	151	48	14	142	26	26	218	24	24	129	14	839
	4:30 PM	17	193	47	14	190	27	37	237	25	37	124	9	957
	4:45 PM	18	164	53	18	164	22	39	270	25	31	117	15	936
	5:00 PM	23	182	60	22	166	35	28	242	16	24	103	10	911
	5:15 PM	17	148	52	21	190	37	43	258	28	31	124	8	957
	5:30 PM	28	180	54	27	161	23	37	221	22	21	125	11	910
	5:45 PM	23	163	53	18	148	20	25	213	21	33	127	5	849
	VOLUMES	173	1,346	408	157	1,289	209	265	1,860	177	231	972	77	7,164
	APPROACH %	9%	70%	21%	9%	78%	13%	12%	81%	8%	18%	76%	6%	
	APP/DEPART	1,927	/	1,670	1,655	/	1,699	2,302	/	2,402	1,280	/	1,393	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	75	687	212	61	710	121	123	1,007	94	122	468	42	3,761
	APPROACH %	8%	71%	22%	7%	78%	13%	10%	81%	8%	19%	74%	7%	
	PEAK HR FACTOR	0.919			0.913			0.934			0.931			0.982
	APP/DEPART	974	/	866	906	/	926	1,248	/	1,281	633	/	688	0

0	0	2	0	2
0	0	4	0	4
0	0	2	0	2
0	0	2	1	3
0	1	6	1	8
0	1	7	0	8
0	1	3	0	4
1	3	4	1	9
1	6	30	3	40

0	5	7	0	12
2	1	2	1	6
0	4	6	0	10
0	3	3	1	7
0	5	6	0	11
0	2	9	0	11
1	4	7	0	12
1	1	3	0	5
4	25	43	2	74





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/27/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
19  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
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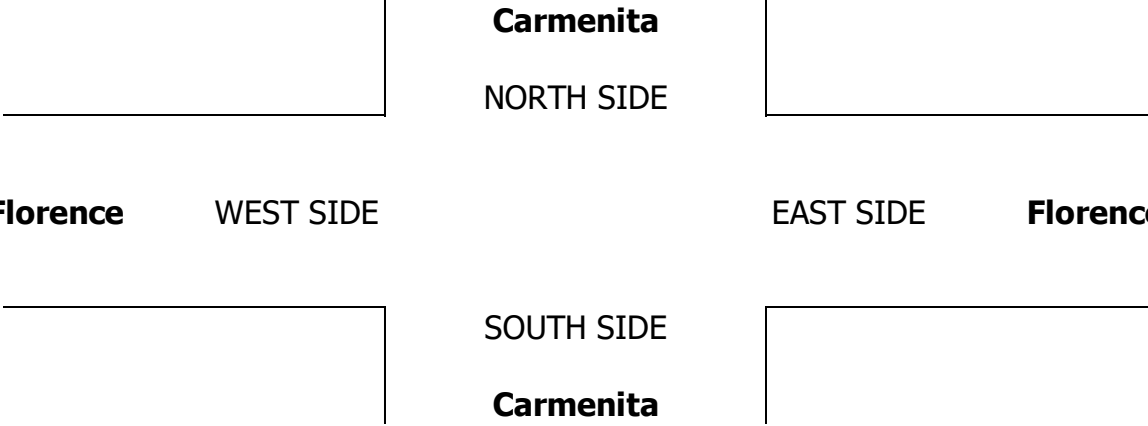
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Florence			Florence			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	3	7	3	1	13	2	1	10	1	3	17	2	63
	7:15 AM	4	14	5	1	16	0	2	7	2	5	9	0	65
	7:30 AM	2	13	0	0	7	1	1	8	4	2	19	0	57
	7:45 AM	2	12	5	0	6	3	1	8	3	1	12	1	54
	8:00 AM	3	3	3	0	11	2	3	8	6	0	19	0	58
	8:15 AM	0	11	2	3	5	4	3	8	2	4	15	2	59
	8:30 AM	3	9	0	2	13	1	2	12	1	1	21	0	65
	8:45 AM	1	14	1	0	11	1	0	20	2	1	8	1	60
	VOLUMES	18	83	19	7	82	14	13	81	21	17	120	6	481
	APPROACH %	15%	69%	16%	7%	80%	14%	11%	70%	18%	12%	84%	4%	
	APP/DEPART	120	/	100	103	/	120	115	/	105	143	/	156	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	11	42	13	1	40	6	4	31	15	8	59	1	234
PM	APPROACH %	17%	64%	20%	2%	85%	13%	8%	58%	28%	12%	87%	1%	
	PEAK HR FACTOR	0.717			0.691			0.779			0.810			0.900
	APP/DEPART	66	/	47	47	/	63	53	/	45	68	/	79	0
	04:00 PM	0	11	2	1	10	5	4	11	2	2	13	1	62
	4:15 PM	0	13	1	0	12	3	2	12	1	3	15	0	62
	4:30 PM	1	10	0	1	12	0	0	13	1	1	7	1	47
	4:45 PM	3	7	4	0	9	0	1	13	1	1	6	1	46
	5:00 PM	0	10	4	3	7	0	2	12	1	0	11	0	50
	5:15 PM	1	9	1	0	12	3	3	12	0	0	5	1	47
	5:30 PM	3	6	2	3	5	3	0	7	0	0	10	1	40
	5:45 PM	0	5	4	0	2	1	0	6	3	2	10	0	33
	VOLUMES	8	71	18	8	69	15	12	86	9	9	77	5	387
	APPROACH %	8%	73%	19%	9%	75%	16%	11%	80%	8%	10%	85%	5%	
	APP/DEPART	97	/	88	92	/	87	107	/	112	91	/	100	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	5	36	9	4	40	3	6	50	3	2	29	3	190
	APPROACH %	10%	72%	18%	9%	85%	6%	10%	85%	5%	6%	85%	9%	
	PEAK HR FACTOR	0.893			0.783			0.983			0.773			0.950
	APP/DEPART	50	/	45	47	/	45	59	/	63	34	/	37	0

0	1	0	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	2	0	2
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	2	4	0	6

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/27/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 19 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

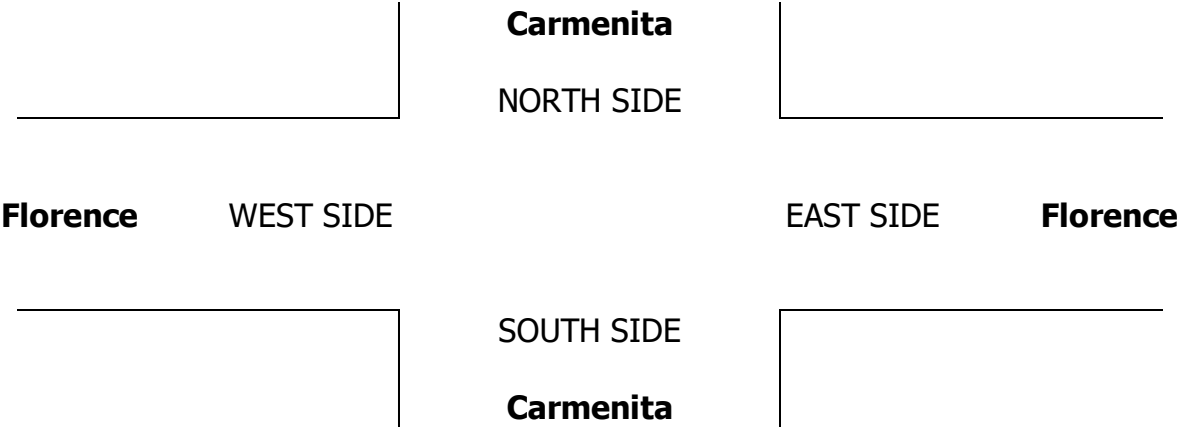
	NORTHBOUND Carmenita			SOUTHBOUND Carmenita			EASTBOUND Florence			WESTBOUND Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

AM	7:00 AM	0	1	0	1	1	0	0	0	1	0	1	0	5
	7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:45 AM	0	2	0	0	1	0	0	0	0	1	0	0	4
	8:00 AM	0	0	1	0	1	0	0	1	1	0	2	0	6
	8:15 AM	0	3	1	0	2	0	0	1	0	1	0	0	8
	8:30 AM	0	1	0	0	0	0	1	0	0	0	1	0	3
	8:45 AM	0	3	0	0	0	0	0	0	1	0	0	0	4
	VOLUMES	0	10	2	1	5	0	1	2	3	2	7	0	33
	APPROACH %	0%	83%	17%	17%	83%	0%	17%	33%	50%	22%	78%	0%	
	APP/DEPART	12	/	11	6	/	10	6	/	5	9	/	7	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	0	2	1	0	2	0	0	1	1	1	5	0	13
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	50%	50%	17%	83%	0%	
	PEAK HR FACTOR	0.375			0.500			0.250			0.750			0.542
	APP/DEPART	3	/	2	2	/	4	2	/	2	6	/	5	0
	04:00 PM	0	1	0	0	0	0	0	0	0	0	1	1	3
	4:15 PM	0	0	0	0	0	0	0	2	0	0	2	1	5
	4:30 PM	0	1	0	0	0	0	0	0	1	0	3	0	5
PM	4:45 PM	1	2	0	0	3	0	0	0	0	0	0	0	6
	5:00 PM	1	1	1	0	0	0	0	0	0	0	0	0	3
	5:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	4
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	VOLUMES	2	6	1	0	6	0	0	5	1	0	7	2	30
	APPROACH %	22%	67%	11%	0%	100%	0%	0%	83%	17%	0%	78%	22%	
	APP/DEPART	9	/	8	6	/	7	6	/	6	9	/	9	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	2	4	1	0	5	0	0	2	1	0	3	0	18
	APPROACH %	29%	57%	14%	0%	100%	0%	0%	67%	33%	0%	100%	0%	
	PEAK HR FACTOR	0.583			0.417			0.375			0.250			0.750
	APP/DEPART	7	/	4	5	/	6	3	/	3	3	/	5	0

U-TURNS				
NB	SB	EB	WB	TTL

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/27/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Florence	PROJECT #: LOCATION #: CONTROL:	SC2721 19 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

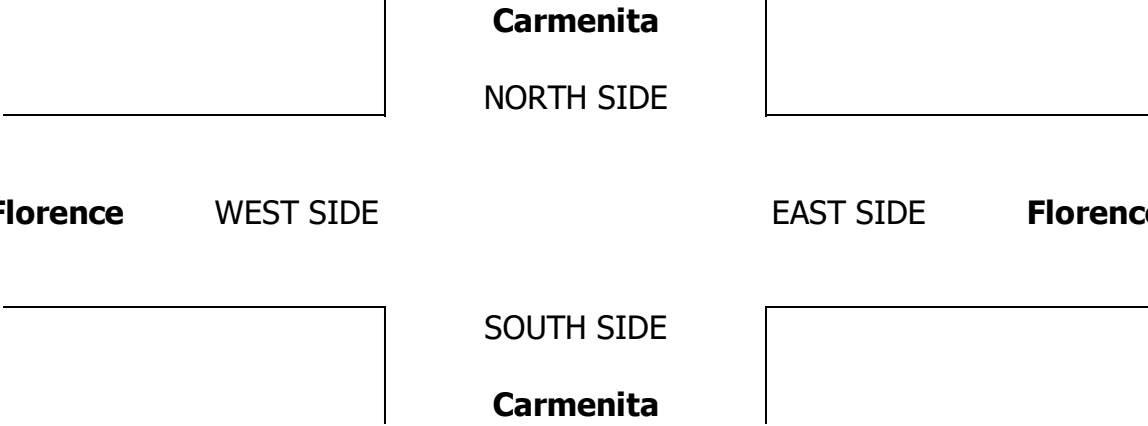
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	1	2	0	3	0	6
	7:15 AM	0	2	0	0	1	1	0	1	0	0	1	0	6
	7:30 AM	1	1	0	0	0	0	1	2	1	0	1	0	7
	7:45 AM	1	1	0	0	1	0	0	0	0	0	1	0	4
	8:00 AM	0	1	0	0	2	1	0	1	3	0	0	0	8
	8:15 AM	0	2	0	0	1	0	1	2	1	0	2	0	9
	8:30 AM	1	3	0	0	1	0	0	0	2	0	1	0	8
	8:45 AM	0	0	0	0	2	0	1	1	2	0	0	0	6
	VOLUMES	3	10	0	0	8	2	3	8	11	0	9	0	54
	APPROACH %	23%	77%	0%	0%	80%	20%	14%	36%	50%	0%	100%	0%	
APP/DEPART	13	/	13	10	/	19	22	/	8	9	/	14	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	2	5	0	0	4	2	1	4	4	0	3	0	25	
APPROACH %	29%	71%	0%	0%	67%	33%	11%	44%	44%	0%	100%	0%		
PEAK HR FACTOR	0.875			0.500			0.563			0.750			0.781	
APP/DEPART	7	/	6	6	/	8	9	/	4	3	/	7	0	
PM	04:00 PM	1	1	0	0	4	0	0	1	1	0	2	0	10
	4:15 PM	1	1	0	0	1	0	0	1	1	0	0	0	5
	4:30 PM	0	1	0	0	0	0	1	1	1	0	1	0	5
	4:45 PM	0	1	0	0	2	1	0	1	0	1	0	0	6
	5:00 PM	1	1	0	2	1	0	0	1	1	0	1	0	8
	5:15 PM	0	1	0	0	0	0	1	1	0	0	3	0	6
	5:30 PM	4	1	0	0	0	0	0	1	0	0	0	0	6
	5:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	2
	VOLUMES	7	7	0	2	8	1	2	8	4	2	7	0	48
	APPROACH %	50%	50%	0%	18%	73%	9%	14%	57%	29%	22%	78%	0%	
	APP/DEPART	14	/	9	11	/	14	14	/	10	9	/	15	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	4	0	2	3	1	2	4	2	1	5	0	25
	APPROACH %	20%	80%	0%	33%	50%	17%	25%	50%	25%	17%	83%	0%	
PEAK HR FACTOR	0.625			0.500			0.667			0.500			0.781	
APP/DEPART	5	/	6	6	/	6	8	/	6	6	/	7	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/27/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Florence

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
19  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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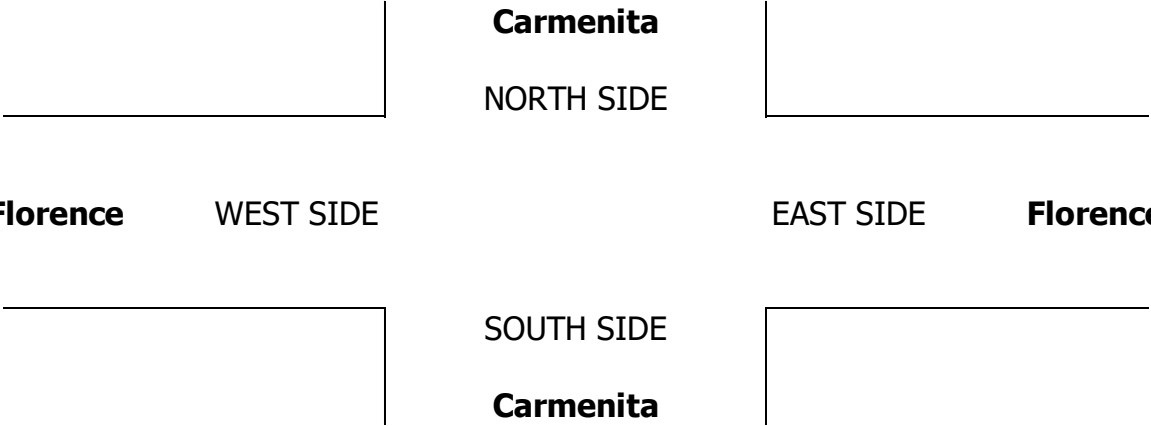
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<div>DATE: 4/27/21 TUESDAY</div>	<div>LOCATION:</div> <div>NORTH &amp; SOUTH:</div> <div>EAST &amp; WEST:</div>	<div>Santa Fe Springs</div> <div>Carmenita</div> <div>Florence</div>	<div>PROJECT #:</div> <div>LOCATION #:</div> <div>CONTROL:</div>	<div>SC2721</div> <div>19</div> <div>SIGNAL</div>		
<div>CLASS 6:</div>	<div>NOTES:</div>		<div>AM</div> <div>PM</div> <div>MD</div> <div>OTHER</div> <div>OTHER</div>	<div></div> <div>◀ W</div> <div></div>	<div>▲</div> <div>N</div> <div>S</div> <div>▼</div>	<div></div> <div>E ▶</div> <div></div>
<div>BUSES</div>						

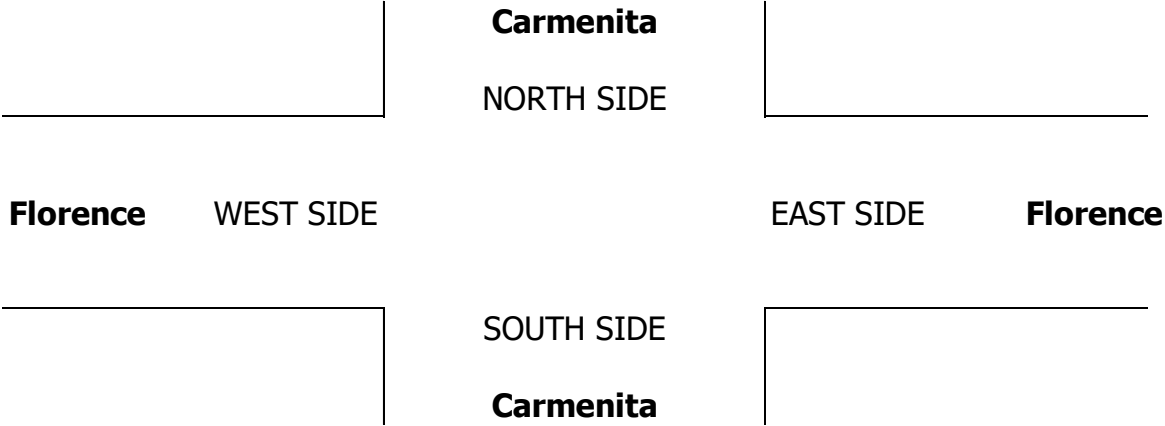
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Florence			Florence			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	1	0	0	0	0	0	0	1	2
	7:15 AM	0	0	0	0	0	0	1	0	1	1	0	3
	7:30 AM	0	0	1	0	2	0	2	0	1	0	0	6
	7:45 AM	0	3	0	1	1	0	0	0	0	1	0	6
	8:00 AM	0	1	0	1	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	1	0	1	0	0	0	0	2
	8:30 AM	0	0	0	0	0	1	0	0	0	0	0	2
	8:45 AM	0	3	0	1	1	0	0	0	0	0	0	5
	VOLUMES	0	7	1	4	5	1	5	0	2	2	0	28
	APPROACH %	0%	88%	13%	40%	50%	10%	71%	0%	29%	67%	0%	33%
	APP/DEPART	8	/	13	10	/	9	7	/	5	3	/	1
	BEGIN PEAK HR	7:15 AM											
PM	VOLUMES	0	4	1	2	3	0	3	0	2	2	0	17
	APPROACH %	0%	80%	20%	40%	60%	0%	60%	0%	40%	100%	0%	0%
	PEAK HR FACTOR	0.417			0.625			0.417			0.500		
	APP/DEPART	5	/	7	5	/	7	5	/	3	2	/	0
	04:00 PM	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	1	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	1
	5:00 PM	0	0	0	0	1	0	1	0	0	0	0	2
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	1	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	1	1	2	2	0	0	0	0	7
	APPROACH %	0%	100%	0%	25%	25%	50%	100%	0%	0%	0%	0%	0%
	APP/DEPART	1	/	3	4	/	1	2	/	1	0	/	2
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	1	0	0	1	1	1	0	0	0	0	4
	APPROACH %	0%	100%	0%	0%	50%	50%	100%	0%	0%	0%	0%	0%
	PEAK HR FACTOR	0.250			0.500			0.250			0.000		
	APP/DEPART	1	/	2	2	/	1	1	/	0	0	/	1

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Lakeland

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
20  
SIGNAL

NOTES:

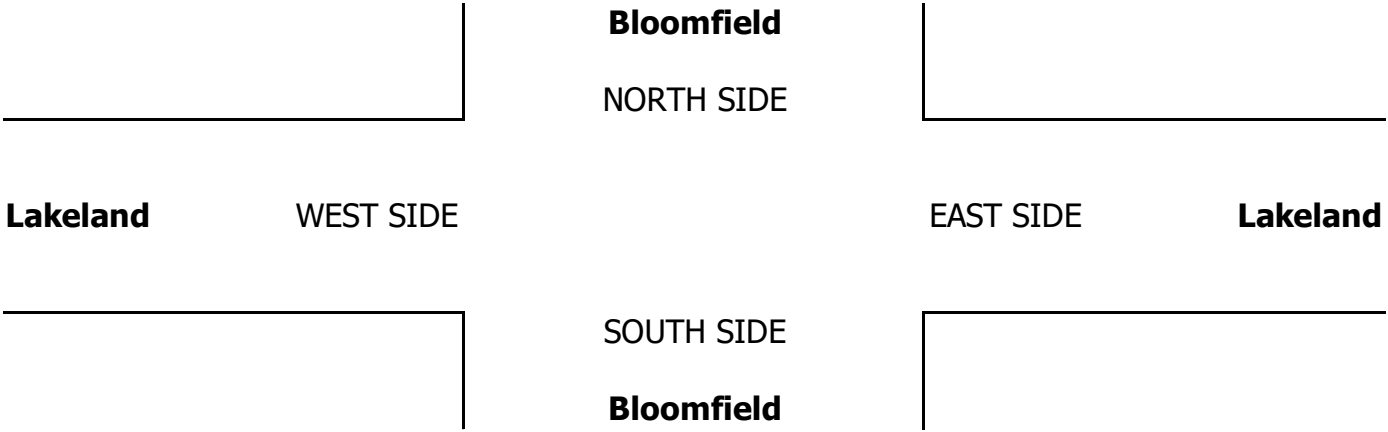
AM  
PM  
MD  
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OTHER

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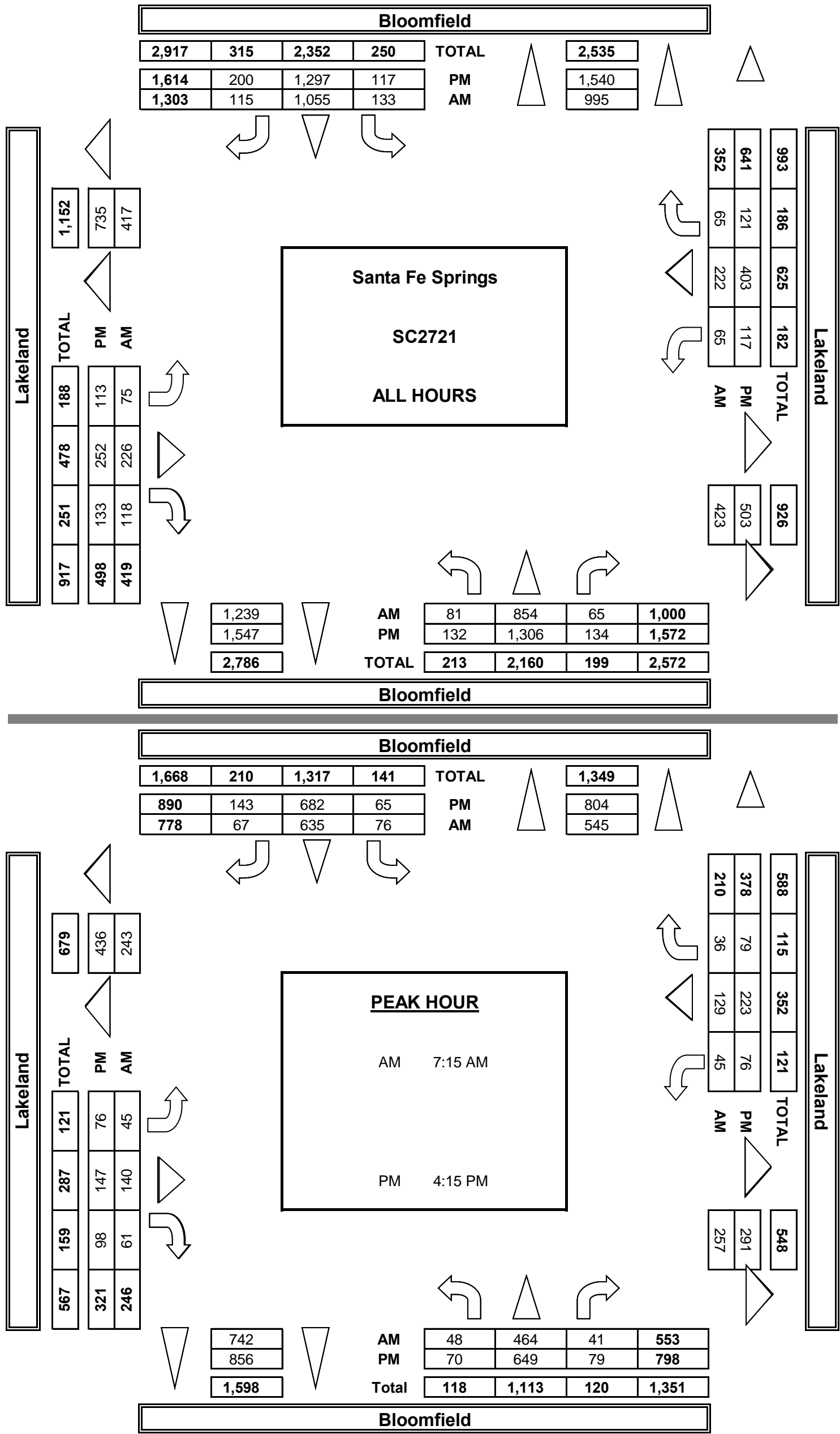
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Bloomfield			Bloomfield			Lakeland			Lakeland				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL	0	0	0	0	
AM	7:00 AM	9	86	9	16	138	22	6	26	19	9	27	1	368	0	0	0	0	0
	7:15 AM	18	109	5	19	137	29	15	25	21	10	22	5	415	1	0	0	0	1
	7:30 AM	6	89	13	18	166	8	12	39	14	14	36	7	422	0	0	0	0	0
	7:45 AM	10	137	11	24	179	14	9	43	16	15	29	17	504	0	0	0	0	0
	8:00 AM	14	129	12	15	153	16	9	33	10	6	42	7	446	0	0	0	0	0
	8:15 AM	7	108	2	15	119	14	6	24	13	3	21	9	341	0	0	0	0	0
	8:30 AM	10	94	7	9	108	8	6	18	16	3	22	10	311	0	1	0	0	1
	8:45 AM	7	102	6	17	55	4	12	18	9	5	23	9	267	0	0	0	0	0
	VOLUMES	81	854	65	133	1,055	115	75	226	118	65	222	65	3,074	1	1	0	0	2
	APPROACH %	8%	85%	7%	10%	81%	9%	18%	54%	28%	18%	63%	18%						
APP/DEPART	1,000	/	995	1,303	/	1,239	419	/	423	352	/	417	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	48	464	41	76	635	67	45	140	61	45	129	36	1,787						
APPROACH %	9%	84%	7%	10%	82%	9%	18%	57%	25%	21%	61%	17%							
PEAK HR FACTOR	0.875			0.896			0.904			0.861			0.886						
APP/DEPART	553	/	545	778	/	742	246	/	257	210	/	243	0						
PM	04:00 PM	24	155	11	21	164	22	10	31	12	14	48	13	525	0	0	0	0	0
	4:15 PM	16	158	19	17	134	27	13	27	18	27	63	25	544	0	0	0	0	0
	4:30 PM	23	180	19	16	185	57	28	52	39	23	55	25	702	0	0	0	0	0
	4:45 PM	18	161	14	18	140	39	25	35	22	15	44	11	542	0	0	0	0	0
	5:00 PM	13	150	27	14	223	20	10	33	19	11	61	18	599	0	0	0	0	0
	5:15 PM	16	201	18	12	162	16	8	21	8	4	52	15	533	0	0	0	0	0
	5:30 PM	15	157	16	7	149	11	13	27	7	7	43	7	459	0	0	0	0	0
	5:45 PM	7	144	10	12	140	8	6	26	8	16	37	7	421	0	0	0	0	0
	VOLUMES	132	1,306	134	117	1,297	200	113	252	133	117	403	121	4,325	0	0	0	0	0
	APPROACH %	8%	83%	9%	7%	80%	12%	23%	51%	27%	18%	63%	19%						
APP/DEPART	1,572	/	1,540	1,614	/	1,547	498	/	503	641	/	735	0						
BEGIN PEAK HR	4:15 PM																		
VOLUMES	70	649	79	65	682	143	76	147	98	76	223	79	2,387						
APPROACH %	9%	81%	10%	7%	77%	16%	24%	46%	31%	20%	59%	21%							
PEAK HR FACTOR	0.899			0.862			0.674			0.822			0.850						
APP/DEPART	798	/	804	890	/	856	321	/	291	378	/	436	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	5	1	3	2	11	3	1	2	0	6	2	0	1	2	5
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	7:45 AM	1	2	2	1	6	1	1	0	1	3	0	1	2	0	3
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	0	2	3	0	0	0	0	0	1	0	0	2	3
	8:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	8:45 AM	2	0	1	0	3	2	0	1	0	3	0	0	0	0	0
TOTAL		10	4	7	5	26	6	2	3	1	12	4	2	4	4	14
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	1	0	0	1	2	0	0	0	0	0	1	0	0	1	2
	4:30 PM	0	2	0	11	13	0	1	0	9	10	0	1	0	2	3
	4:45 PM	3	1	2	1	7	2	1	2	1	6	1	0	0	0	1
	5:00 PM	2	2	2	2	8	2	1	1	1	5	0	1	1	1	3
	5:15 PM	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2
	5:30 PM	1	1	0	0	2	0	1	0	0	1	1	0	0	0	1
5:45 PM	0	2	1	1	4	0	1	0	0	1	0	1	1	1	3	
TOTAL		7	9	6	16	38	4	5	3	11	23	3	4	3	5	15

AimTD LLC  
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

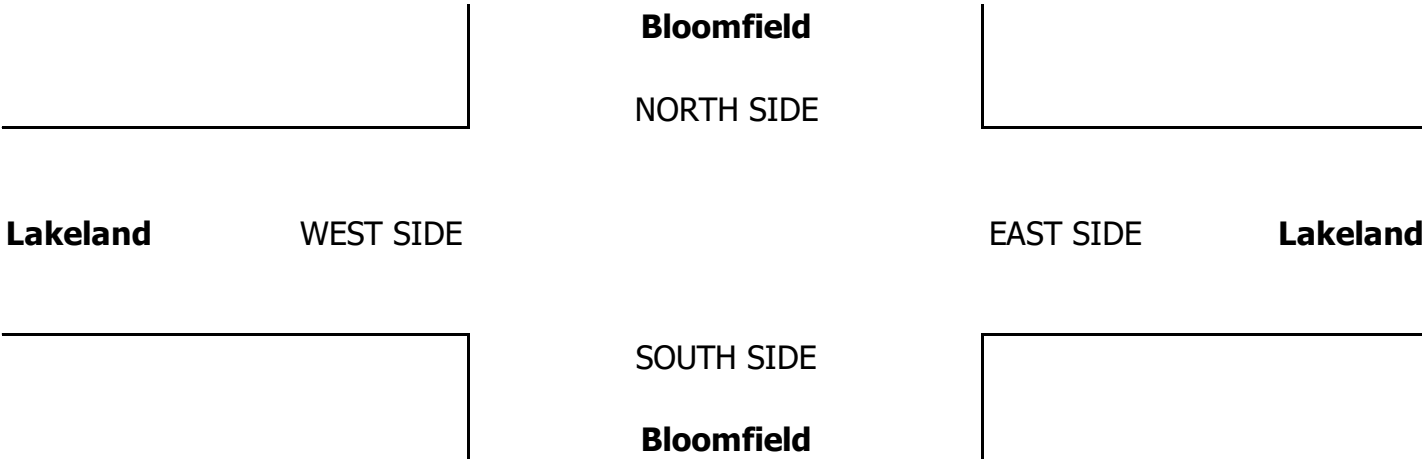
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Lakeland	PROJECT #: LOCATION #: CONTROL:	SC2721 20 SIGNAL
-----------------------------	---	--	---------------------------------------	------------------------

PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Bloomfield			Bloomfield			Lakeland			Lakeland				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL					

AM	7:00 AM	10	93	9	18	154	23	6	35	19	10	29	1	405					0
	7:15 AM	20	113	5	22	149	32	15	27	21	11	29	8	450					0
	7:30 AM	7	91	16	23	178	9	13	39	15	15	40	11	453					0
	7:45 AM	11	146	11	30	192	14	9	45	17	16	34	22	545					0
	8:00 AM	15	135	13	17	162	18	10	37	11	8	46	8	478					0
	8:15 AM	8	120	2	19	131	15	6	28	14	4	26	16	388					0
	8:30 AM	13	100	7	13	118	10	6	28	16	4	23	14	350					0
	8:45 AM	8	113	7	24	59	5	12	24	10	6	29	13	307					0
	VOLUMES	90	910	69	165	1,141	125	77	262	122	71	254	91	3,374	0	0	0	0	0
	APPROACH %	8%	85%	6%	12%	80%	9%	17%	57%	26%	17%	61%	22%						
APP/DEPART	1,069	/	1,077	1,431	/	1,334	460	/	496	416	/	469	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	53	485	44	92	680	72	47	147	63	49	148	48	1,926						
APPROACH %	9%	83%	8%	11%	81%	9%	18%	57%	25%	20%	61%	19%							
PEAK HR FACTOR	0.868			0.895			0.916			0.855			0.884						
APP/DEPART	582	/	579	843	/	792	257	/	283	245	/	273	0						
PM	04:00 PM	25	168	11	41	174	22	11	42	14	17	55	17	594					0
	4:15 PM	16	165	24	24	142	27	17	34	20	31	70	30	597					0
	4:30 PM	23	188	22	26	191	58	29	59	39	33	58	37	762					0
	4:45 PM	18	169	17	27	150	40	28	38	25	19	50	15	595					0
	5:00 PM	13	156	30	20	227	22	13	38	21	12	62	23	634					0
	5:15 PM	18	210	23	21	166	17	8	21	10	4	56	23	576					0
	5:30 PM	16	165	17	10	156	11	14	29	7	9	45	7	484					0
	5:45 PM	7	148	10	16	145	9	9	29	11	18	40	8	448					0
	VOLUMES	135	1,368	154	183	1,349	205	127	289	146	142	435	158	4,689	0	0	0	0	0
	APPROACH %	8%	83%	9%	11%	78%	12%	23%	51%	26%	19%	59%	21%						
	APP/DEPART	1,657	/	1,653	1,736	/	1,637	562	/	625	735	/	775	0					
	BEGIN PEAK HR	4:15 PM																	
	VOLUMES	70	677	93	96	710	146	86	168	105	95	240	104	2,588					
	APPROACH %	8%	81%	11%	10%	75%	15%	24%	47%	29%	22%	55%	24%						
PEAK HR FACTOR	0.901			0.867			0.706			0.839			0.849						
APP/DEPART	840	/	867	952	/	909	359	/	357	438	/	456	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Lakeland

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
20  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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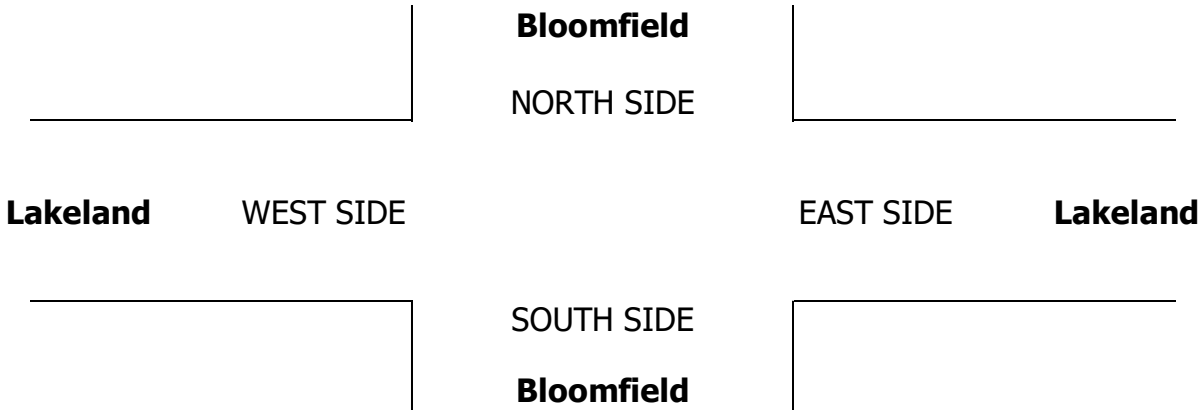
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Lakeland			Lakeland			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	1	1	1	0	1	1	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	8	77	9	14	120	20	6	19	19	8	24	1	325
	7:15 AM	17	102	5	17	120	27	15	24	21	9	17	3	377
	7:30 AM	4	85	11	15	155	7	11	39	13	13	32	4	389
	7:45 AM	9	126	11	19	168	14	9	40	15	13	24	12	460
	8:00 AM	12	123	11	14	139	12	7	30	8	5	37	6	404
	8:15 AM	6	95	2	13	105	12	6	19	11	2	18	4	293
	8:30 AM	8	84	7	7	94	5	6	11	16	2	20	7	267
	8:45 AM	6	88	4	12	50	2	12	13	8	4	19	5	223
	VOLUMES	70	780	60	111	951	99	72	195	111	56	191	42	2,738
	APPROACH %	8%	86%	7%	10%	82%	9%	19%	52%	29%	19%	66%	15%	
	APP/DEPART	910	/	895	1,161	/	1,119	378	/	365	289	/	359	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	41	436	38	65	582	60	42	133	57	40	110	25	1,630
PM	APPROACH %	8%	84%	7%	9%	82%	8%	18%	57%	25%	23%	63%	14%	
	PEAK HR FACTOR	0.884			0.879			0.906			0.893			0.886
	APP/DEPART	516	/	503	707	/	680	232	/	236	175	/	211	0
	04:00 PM	23	143	11	8	152	22	9	23	11	12	43	10	467
	4:15 PM	16	145	16	11	124	27	9	20	17	24	55	22	486
	4:30 PM	23	168	16	8	178	56	26	46	39	18	53	18	649
	4:45 PM	18	146	11	9	127	37	20	30	19	13	39	8	477
	5:00 PM	13	142	25	8	215	17	8	26	17	10	60	14	555
	5:15 PM	15	189	14	6	156	15	8	21	7	4	48	10	493
	5:30 PM	14	150	14	5	141	11	11	25	7	6	40	7	431
	5:45 PM	7	140	10	10	132	7	4	23	6	15	35	6	395
	VOLUMES	129	1,223	117	65	1,225	192	95	214	123	102	373	95	3,953
	APPROACH %	9%	83%	8%	4%	83%	13%	22%	50%	28%	18%	65%	17%	
	APP/DEPART	1,469	/	1,413	1,482	/	1,450	432	/	396	570	/	694	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	70	601	68	36	644	137	63	122	92	65	207	62	2,167
	APPROACH %	9%	81%	9%	4%	79%	17%	23%	44%	33%	19%	62%	19%	
	PEAK HR FACTOR	0.893			0.844			0.624			0.827			0.835
	APP/DEPART	739	/	726	817	/	801	277	/	226	334	/	414	0

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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Lakeland

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
20  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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E ▶

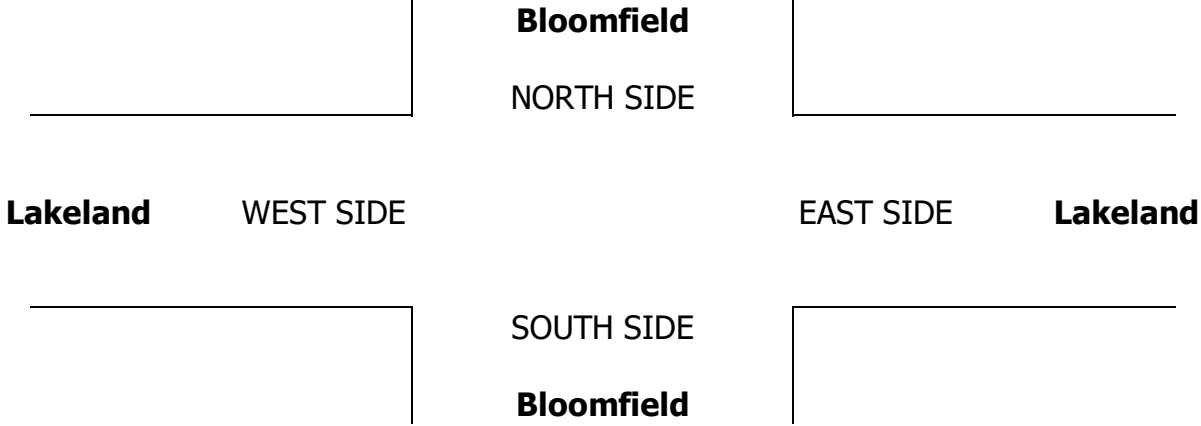
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Lakeland			Lakeland			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	1	1	1	0	1	1	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	7	0	1	12	2	0	2	0	1	3	0	28
	7:15 AM	0	6	0	1	14	1	0	0	0	1	0	1	24
	7:30 AM	2	4	1	0	7	1	1	0	1	1	3	1	22
	7:45 AM	1	8	0	2	5	0	0	3	1	2	3	2	27
	8:00 AM	2	4	1	0	13	4	2	1	2	0	4	1	34
	8:15 AM	1	8	0	0	11	2	0	4	2	1	0	2	31
	8:30 AM	1	9	0	0	12	3	0	2	0	1	2	1	31
	8:45 AM	1	11	2	0	4	2	0	1	1	1	1	3	27
	VOLUMES	8	57	4	4	78	15	3	13	7	8	16	11	224
	APPROACH %	12%	83%	6%	4%	80%	15%	13%	57%	30%	23%	46%	31%	
	APP/DEPART	69	/	71	97	/	93	23	/	21	35	/	39	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	5	22	2	3	39	6	3	4	4	4	10	5	107
	APPROACH %	17%	76%	7%	6%	81%	13%	27%	36%	36%	21%	53%	26%	
PM	PEAK HR FACTOR	0.806			0.706			0.550			0.679			0.787
	APP/DEPART	29	/	30	48	/	47	11	/	9	19	/	21	0
	04:00 PM	1	6	0	3	9	0	1	2	0	1	2	1	26
	4:15 PM	0	13	0	3	7	0	3	5	0	1	6	0	38
	4:30 PM	0	10	2	4	4	1	2	2	0	0	0	1	26
	4:45 PM	0	14	2	5	10	2	4	4	2	0	2	1	46
	5:00 PM	0	7	1	4	8	3	1	5	1	0	1	2	33
	5:15 PM	0	10	2	2	5	0	0	0	0	0	3	1	23
	5:30 PM	1	4	2	1	5	0	2	1	0	0	2	0	18
	5:45 PM	0	2	0	0	7	1	1	2	1	0	0	0	14
	VOLUMES	2	66	9	22	55	7	14	21	4	2	16	6	224
	APPROACH %	3%	86%	12%	26%	65%	8%	36%	54%	10%	8%	67%	25%	
	APP/DEPART	77	/	86	84	/	61	39	/	52	24	/	25	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	44	5	16	29	6	10	16	3	1	9	4	143
	APPROACH %	0%	90%	10%	31%	57%	12%	34%	55%	10%	7%	64%	29%	
	PEAK HR FACTOR	0.766			0.750			0.725			0.500			0.777
	APP/DEPART	49	/	58	51	/	33	29	/	37	14	/	15	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Lakeland	PROJECT #: LOCATION #: CONTROL:	SC2721 20 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

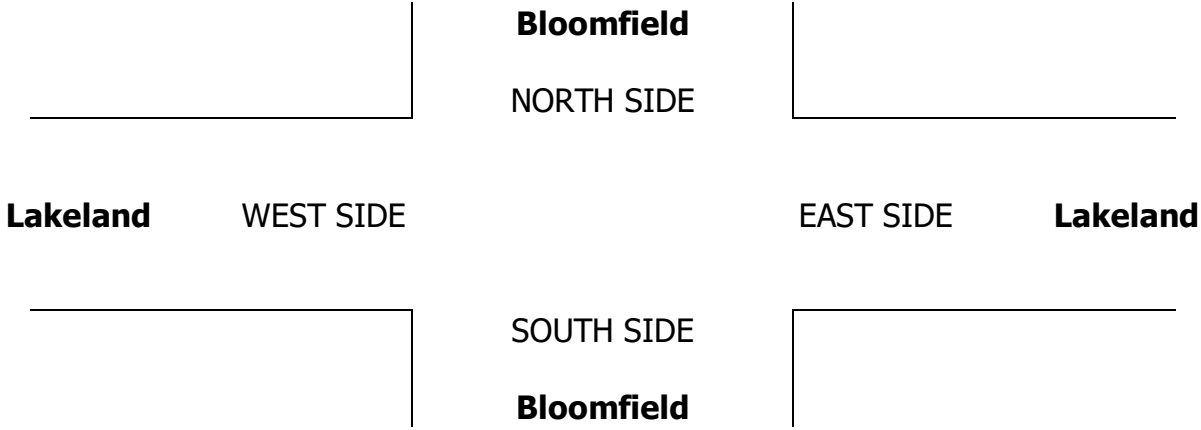
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Lakeland			Lakeland			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	0	1	2	0	0	2	0	0	0	0	6
	7:15 AM	0	1	0	0	0	0	0	0	0	0	2	0	3
	7:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	2
	7:45 AM	0	0	0	1	0	0	0	0	0	0	1	2	4
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	2	0	0	0	0	0	0	0	0	1	0	3
	8:30 AM	0	1	0	0	0	0	0	1	0	0	0	1	3
	8:45 AM	0	0	0	3	0	0	0	3	0	0	1	0	7
	VOLUMES	1	4	0	6	2	0	0	6	0	0	5	4	28
	APPROACH %	20%	80%	0%	75%	25%	0%	0%	100%	0%	0%	56%	44%	
APP/DEPART	5	/	8	8	/	2	6	/	12	9	/	6	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	1	0	2	0	0	0	0	0	0	3	3	9	
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	50%	50%		
PEAK HR FACTOR	0.250			0.500			0.000			0.500			0.563	
APP/DEPART	1	/	4	2	/	0	0	/	2	6	/	3	0	
PM	04:00 PM	0	2	0	2	1	0	0	2	0	0	0	1	8
	4:15 PM	0	0	1	1	2	0	0	0	0	1	0	1	6
	4:30 PM	0	0	0	0	2	0	0	2	0	0	1	1	6
	4:45 PM	0	0	0	2	0	0	1	1	0	0	1	1	6
	5:00 PM	0	0	0	0	0	0	0	2	1	1	0	0	4
	5:15 PM	0	0	0	0	1	1	0	0	0	0	0	1	3
	5:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
	VOLUMES	0	2	1	5	8	1	1	7	1	2	4	6	38
	APPROACH %	0%	67%	33%	36%	57%	7%	11%	78%	11%	17%	33%	50%	
	APP/DEPART	3	/	9	14	/	11	9	/	13	12	/	5	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	0	1	3	4	0	1	5	1	2	2	3	22
	APPROACH %	0%	0%	100%	43%	57%	0%	14%	71%	14%	29%	29%	43%	
PEAK HR FACTOR	0.250			0.583			0.583			0.875			0.917	
APP/DEPART	1	/	4	7	/	7	7	/	9	7	/	2	0	

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Lakeland

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
20  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
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E ▶

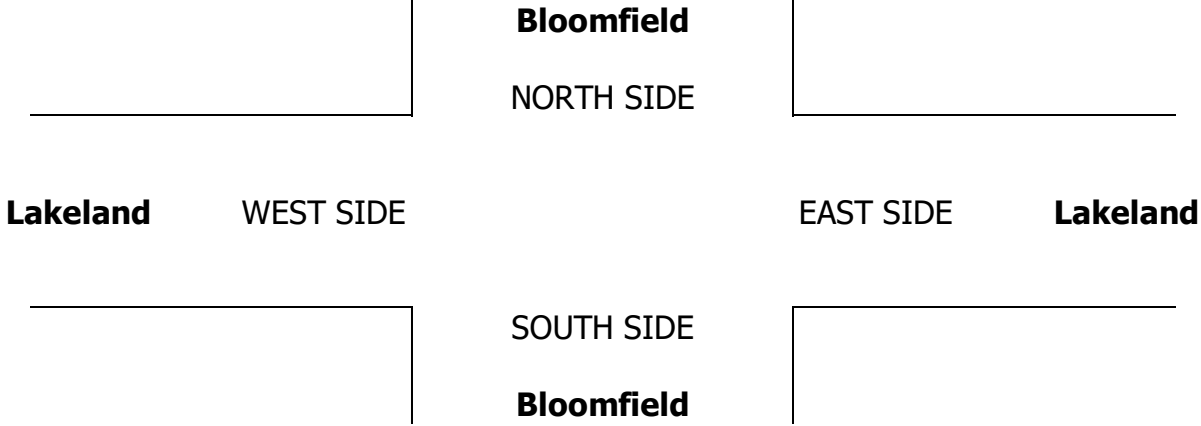
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Lakeland			Lakeland			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	1	1	1	0	1	1	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	0	4	0	0	3	0	0	0	0	8
	7:15 AM	1	0	0	1	2	1	0	1	0	0	2	1	9
	7:30 AM	0	0	1	2	4	0	0	0	0	0	1	1	9
	7:45 AM	0	2	0	2	4	0	0	0	0	0	1	1	10
	8:00 AM	0	2	0	1	1	0	0	1	0	1	1	0	7
	8:15 AM	0	3	0	2	3	0	0	1	0	0	2	3	14
	8:30 AM	1	0	0	2	2	0	0	4	0	0	0	1	10
	8:45 AM	0	2	0	2	1	0	0	1	0	0	2	1	9
	VOLUMES	2	10	1	12	21	1	0	11	0	1	9	8	76
	APPROACH %	15%	77%	8%	35%	62%	3%	0%	100%	0%	6%	50%	44%	
	APP/DEPART	13	/	18	34	/	22	11	/	24	18	/	12	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	1	4	1	6	11	1	0	2	0	1	5	3	35
PM	APPROACH %	17%	67%	17%	33%	61%	6%	0%	100%	0%	11%	56%	33%	
	PEAK HR FACTOR	0.750			0.750			0.500			0.750			0.875
	APP/DEPART	6	/	7	18	/	12	2	/	9	9	/	7	0
	4:00 PM	0	4	0	8	2	0	0	4	1	1	3	1	24
	4:15 PM	0	0	2	2	1	0	1	2	1	1	2	2	14
	4:30 PM	0	1	1	4	1	0	0	2	0	5	1	5	20
	4:45 PM	0	0	1	2	2	0	0	0	1	2	2	1	11
	5:00 PM	0	1	1	2	0	0	1	0	0	0	0	2	7
	5:15 PM	1	2	2	4	0	0	0	0	1	0	1	3	14
	5:30 PM	0	3	0	1	1	0	0	0	0	1	0	0	6
	5:45 PM	0	1	0	2	0	0	1	1	1	1	1	0	8
	VOLUMES	1	12	7	25	7	0	3	9	5	11	10	14	104
	APPROACH %	5%	60%	35%	78%	22%	0%	18%	53%	29%	31%	29%	40%	
	APP/DEPART	20	/	29	32	/	23	17	/	41	35	/	11	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	2	5	10	4	0	2	4	2	8	5	10	52
	APPROACH %	0%	29%	71%	71%	29%	0%	25%	50%	25%	35%	22%	43%	
	PEAK HR FACTOR	0.875			0.700			0.500			0.523			0.650
	APP/DEPART	7	/	14	14	/	14	8	/	19	23	/	5	0

0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Lakeland

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
20  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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N  
◀ W  
S  
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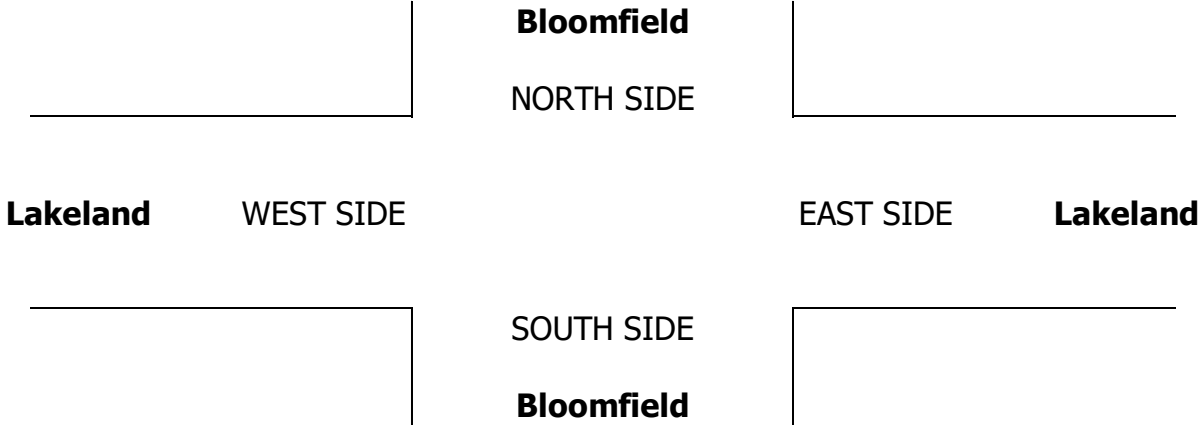
E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Lakeland			Lakeland			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0
	BEGIN PEAK HR	4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Lakeland	PROJECT #: LOCATION #: CONTROL:	SC2721 20 SIGNAL
CLASS 6:	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶
BUSES				

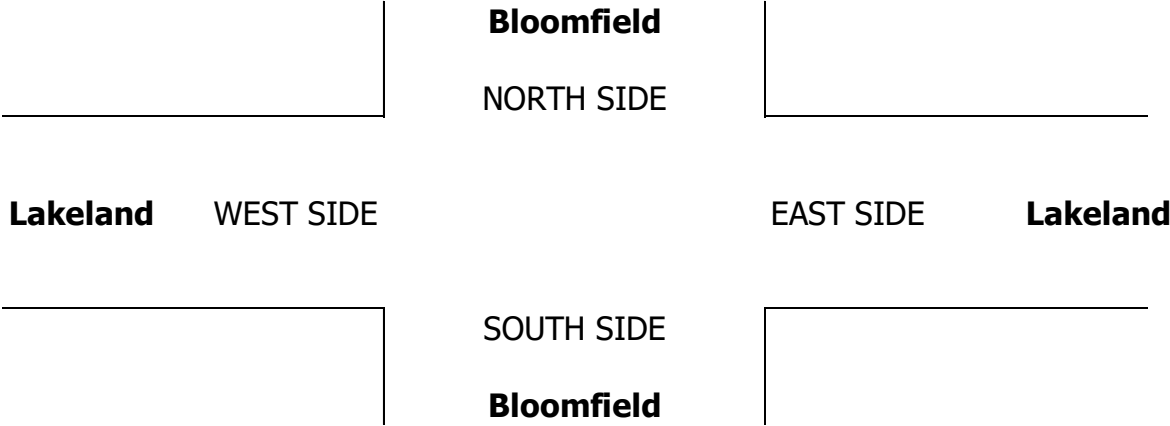
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Lakeland			Lakeland			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	
	7:15 AM	0	0	0	0	1	0	0	0	0	1	0	2	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	1	0	0	2	0	0	0	0	0	0	3	
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	1	
	VOLUMES	0	3	0	0	3	0	0	1	0	0	1	0	8
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	3	/	3	3	/	3	1	/	1	1	/	1	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	1	0	0	3	0	0	1	0	0	1	0	6	
APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%		
PEAK HR FACTOR	0.250			0.375			0.250			0.250			0.500	
APP/DEPART	1	/	1	3	/	3	1	/	1	1	/	1	0	
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	
	VOLUMES	0	3	0	0	2	0	0	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	3	/	3	2	/	2	0	/	0	0	/	0	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	2	0	0	1	0	0	0	0	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.500			0.250			0.000			0.000			0.375	
APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
21  
SIGNAL

NOTES:

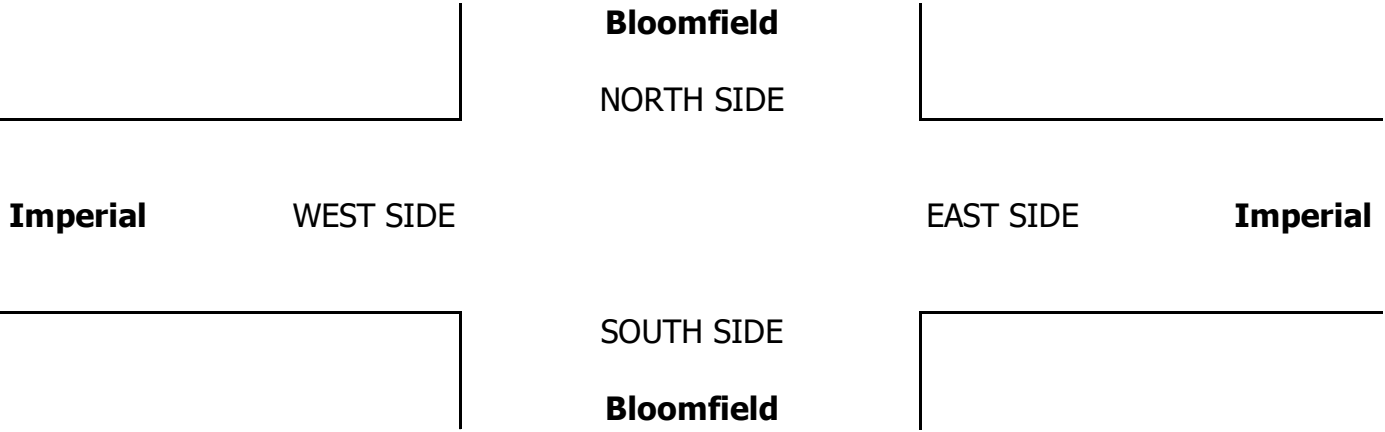
AM  
PM  
MD  
OTHER  
OTHER

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☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					
		Bloomfield			Bloomfield			Imperial			Imperial				NB	SB	EB	WB	TTL	
LANES:		NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	0	0	0	0		
AM	7:00 AM	13	128	41	20	97	23	39	145	10	50	266	10	842	2	0	9	0	11	
	7:15 AM	16	132	52	18	108	33	44	146	5	59	276	19	908	1	0	5	0	6	
	7:30 AM	21	151	51	15	136	23	45	169	12	62	239	10	934	0	0	7	0	7	
	7:45 AM	18	170	69	16	118	28	64	181	14	76	262	19	1,035	1	1	11	0	13	
	8:00 AM	22	177	65	16	142	29	39	165	5	55	245	20	980	0	0	10	0	10	
	8:15 AM	29	113	54	18	78	23	32	163	11	64	229	16	830	1	0	13	0	14	
	8:30 AM	12	94	53	12	88	22	35	140	17	49	209	13	744	1	0	12	0	13	
	8:45 AM	20	113	45	10	44	11	26	135	12	45	205	12	678	1	0	10	0	11	
	VOLUMES	151	1,078	430	125	811	192	324	1,244	86	460	1,931	119	6,951	7	1	77	0	85	
	APPROACH %	9%	65%	26%	11%	72%	17%	20%	75%	5%	18%	77%	5%							
APP/DEPART	1,659	/	1,445	1,128	/	1,364	1,654	/	1,798	2,510	/	2,344	0							
BEGIN PEAK HR	7:15 AM																			
VOLUMES	77	630	237	65	504	113	192	661	36	252	1,022	68	3,857							
APPROACH %	8%	67%	25%	10%	74%	17%	22%	74%	4%	19%	76%	5%								
PEAK HR FACTOR	0.894			0.912			0.858			0.940			0.932							
APP/DEPART	944	/	858	682	/	794	889	/	962	1,342	/	1,243	0							
PM	04:00 PM	33	125	99	26	209	51	48	192	20	65	236	18	1,122	2	2	18	0	22	
	4:15 PM	34	125	81	30	157	49	34	285	13	35	233	9	1,085	0	0	11	0	11	
	4:30 PM	25	116	83	35	195	74	31	291	13	71	268	17	1,219	2	0	11	0	13	
	4:45 PM	23	130	98	27	187	38	37	244	12	65	303	19	1,183	0	0	9	0	9	
	5:00 PM	37	117	106	41	238	57	47	223	19	73	245	18	1,221	0	0	23	0	23	
	5:15 PM	40	128	95	36	216	35	43	286	19	71	267	18	1,254	3	0	13	0	16	
	5:30 PM	24	121	86	35	159	42	46	212	12	72	249	15	1,073	1	0	14	0	15	
	5:45 PM	29	103	87	28	153	22	48	242	18	75	234	13	1,052	3	0	20	0	23	
	VOLUMES	245	965	735	258	1,514	368	334	1,975	126	527	2,035	127	9,209	11	2	119	0	132	
	APPROACH %	13%	50%	38%	12%	71%	17%	14%	81%	5%	20%	76%	5%							
APP/DEPART	1,945	/	1,309	2,140	/	2,178	2,435	/	2,966	2,689	/	2,756	0							
BEGIN PEAK HR	4:30 PM																			
VOLUMES	125	491	382	139	836	204	158	1,044	63	280	1,083	72	4,877							
APPROACH %	13%	49%	38%	12%	71%	17%	12%	83%	5%	20%	75%	5%								
PEAK HR FACTOR	0.949			0.877			0.909			0.927			0.972							
APP/DEPART	998	/	665	1,179	/	1,184	1,265	/	1,565	1,435	/	1,463	0							



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	5	2	2	9	0	5	2	1	8	0	0	0	1	1
	7:15 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	7:30 AM	3	3	1	0	7	2	2	0	0	4	1	1	1	0	3
	7:45 AM	2	0	1	1	4	2	0	0	1	3	0	0	1	0	1
	8:00 AM	1	4	2	2	9	0	3	2	1	6	1	1	0	1	3
	8:15 AM	2	5	1	1	9	2	4	1	1	8	0	1	0	0	1
	8:30 AM	1	1	0	2	4	1	1	0	2	4	0	0	0	0	0
	8:45 AM	0	2	1	1	4	0	1	1	1	3	0	1	0	0	1
TOTAL		9	22	8	9	48	7	18	6	7	38	2	4	2	2	10
PM	4:00 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	4:15 PM	1	0	2	1	4	0	0	0	1	1	1	0	2	0	3
	4:30 PM	1	4	2	4	11	0	4	1	2	7	1	0	1	2	4
	4:45 PM	2	3	0	0	5	2	3	0	0	5	0	0	0	0	0
	5:00 PM	1	0	5	1	7	0	0	3	0	3	1	0	2	1	4
	5:15 PM	2	6	2	1	11	2	4	1	1	8	0	2	1	0	3
	5:30 PM	1	1	1	2	5	0	1	0	2	3	1	0	1	0	2
	5:45 PM	4	1	3	6	14	3	1	2	6	12	1	0	1	0	2
TOTAL		12	15	17	15	59	7	13	9	12	41	5	2	8	3	18

**Santa Fe Springs SC2721**

**ALL HOURS**

**Bloomfield**

3,268	560	2,325	383	TOTAL	2,754
2,140	368	1,514	258	PM	1,309
1,128	192	811	125	AM	1,445

**Imperial**

5,199	246	3,966	987	TOTAL	4,764
2,689	127	2,035	527	PM	2,966
2,510	119	1,931	460	AM	1,798

**Bloomfield**

1,364	AM	151	1,078	430	1,659
2,178	PM	245	965	735	1,945
3,542	TOTAL	396	2,043	1,165	3,604

**PEAK HOUR**

AM 7:15 AM

PM 4:30 PM

**Bloomfield**

1,861	317	1,340	204	TOTAL	1,523
1,179	204	836	139	PM	665
682	113	504	65	AM	858

**Imperial**

2,777	140	2,105	532	TOTAL	2,527
1,435	72	1,083	280	PM	1,565
1,342	68	1,022	252	AM	962

**Bloomfield**

794	AM	77	630	237	944
1,184	PM	125	491	382	998
1,978	Total	202	1,121	619	1,942



INTERSECTION TURNING MOVEMENT COUNTS

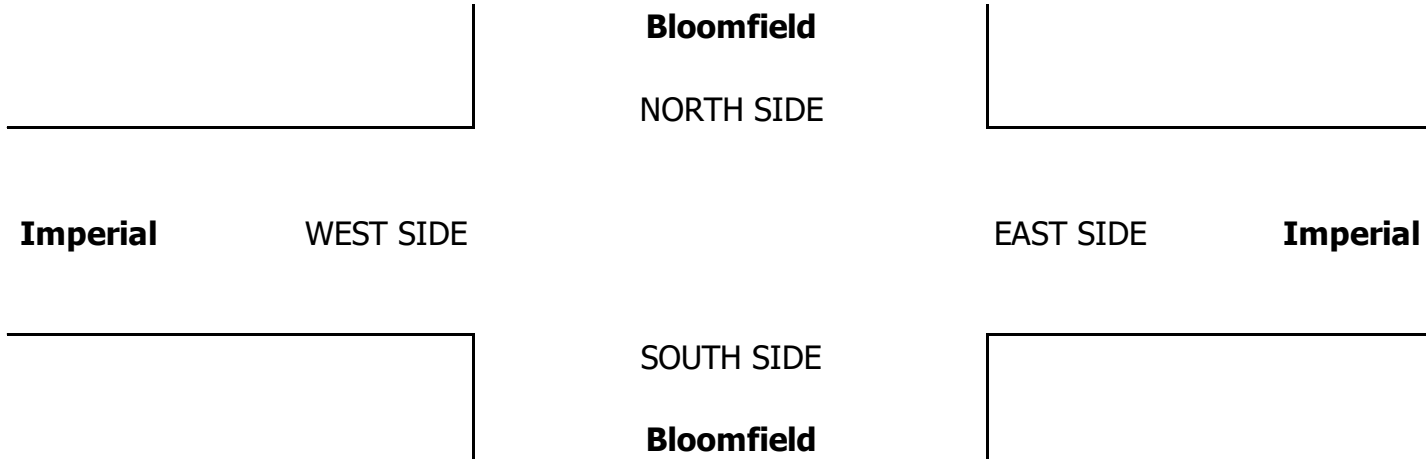
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Imperial	PROJECT #: LOCATION #: CONTROL:	SC2721 21 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Bloomfield			Bloomfield			Imperial			Imperial				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	14	132	42	27	99	28	42	177	11	51	301	14	936					0					
	7:15 AM	16	135	54	23	119	41	49	165	5	61	326	21	1,013					0					
	7:30 AM	22	153	54	19	141	25	50	187	14	63	273	11	1,010					0					
	7:45 AM	18	174	72	24	123	32	67	206	15	81	297	24	1,130					0					
	8:00 AM	23	185	69	20	152	36	43	190	5	61	280	24	1,085					0					
	8:15 AM	30	117	57	24	87	26	35	197	12	68	258	20	929					0					
	8:30 AM	17	100	57	16	95	27	38	156	18	52	233	15	820					0					
	8:45 AM	20	118	46	11	46	12	26	154	13	48	231	15	737					0					
	VOLUMES	158	1,112	450	162	859	225	349	1,431	91	484	2,197	142	7,657	0	0	0	0	0					
	APPROACH %	9%	65%	26%	13%	69%	18%	19%	76%	5%	17%	78%	5%											
APP/DEPART	1,719	/	1,602	1,246	/	1,434	1,870	/	2,042	2,823	/	2,580	0											
BEGIN PEAK HR	7:15 AM																							
VOLUMES	78	647	248	85	533	133	208	748	39	266	1,175	79	4,237											
APPROACH %	8%	66%	26%	11%	71%	18%	21%	75%	4%	18%	77%	5%												
PEAK HR FACTOR	0.881			0.907			0.864			0.931			0.937											
APP/DEPART	973	/	933	751	/	838	994	/	1,081	1,520	/	1,386	0											
PM	04:00 PM	33	131	102	27	219	52	51	216	21	71	250	24	1,193					0					
	4:15 PM	34	130	85	35	163	51	41	315	13	36	246	12	1,159					0					
	4:30 PM	26	123	86	39	196	77	37	322	13	74	284	20	1,294					0					
	4:45 PM	24	135	101	34	192	43	40	264	12	67	316	20	1,246					0					
	5:00 PM	38	120	112	42	241	59	51	235	20	75	267	21	1,278					0					
	5:15 PM	41	131	99	43	219	35	46	314	20	72	287	19	1,324					0					
	5:30 PM	24	126	87	35	163	45	48	223	12	75	265	21	1,123					0					
	5:45 PM	30	104	89	33	158	22	51	259	19	76	245	13	1,096					0					
	VOLUMES	249	998	759	287	1,549	383	363	2,146	128	545	2,158	149	9,711	0	0	0	0	0					
	APPROACH %	12%	50%	38%	13%	70%	17%	14%	81%	5%	19%	76%	5%											
	APP/DEPART	2,006	/	1,510	2,218	/	2,221	2,637	/	3,191	2,851	/	2,789	0										
	BEGIN PEAK HR	4:30 PM																						
	VOLUMES	129	508	398	157	847	213	174	1,134	64	288	1,153	80	5,141										
	APPROACH %	12%	49%	38%	13%	70%	18%	13%	83%	5%	19%	76%	5%											
PEAK HR FACTOR	0.956			0.893			0.904			0.944			0.971											
APP/DEPART	1,034	/	761	1,217	/	1,199	1,371	/	1,688	1,520	/	1,494	0											



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Imperial	PROJECT #: LOCATION #: CONTROL:	SC2721 21 SIGNAL
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CLASS 1:	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
PASSENGER VEHICLES				

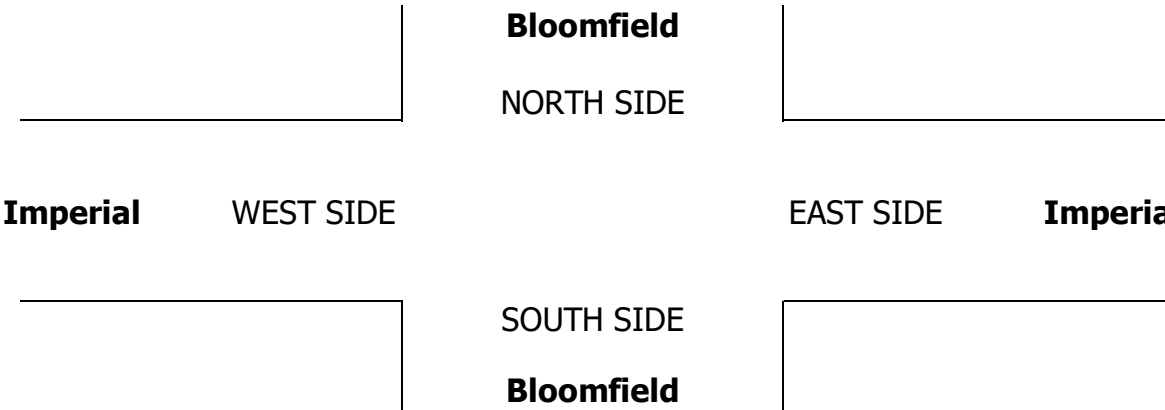
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	12	121	39	13	94	14	34	115	9	48	233	8	740
	7:15 AM	16	129	49	14	91	21	35	125	5	55	232	16	788
	7:30 AM	20	148	46	13	127	19	38	146	9	60	206	9	841
	7:45 AM	18	162	66	10	110	24	58	155	13	68	228	16	928
	8:00 AM	21	167	58	10	124	18	33	142	5	50	205	16	849
	8:15 AM	28	106	48	13	67	17	29	127	9	57	197	13	711
	8:30 AM	9	87	46	7	79	17	32	123	16	44	188	10	658
	8:45 AM	20	105	43	9	41	10	26	116	11	41	173	9	604
	VOLUMES	144	1,025	395	89	733	140	285	1,049	77	423	1,662	97	6,119
	APPROACH %	9%	66%	25%	9%	76%	15%	20%	74%	5%	19%	76%	4%	
	APP/DEPART	1,564	/	1,334	962	/	1,240	1,411	/	1,532	2,182	/	2,013	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	73	606	219	46	452	82	134	568	32	233	871	57	3,406
	APPROACH %	8%	67%	24%	8%	78%	14%	18%	74%	4%	20%	75%	5%	
PM	PEAK HR FACTOR	0.915			0.914			0.845			0.930			0.918
	APP/DEPART	900	/	798	581	/	719	764	/	833	1,161	/	1,056	0
	04:00 PM	33	115	94	24	199	50	43	166	19	57	221	12	1,033
	4:15 PM	34	115	76	26	146	48	27	254	13	33	216	5	993
	4:30 PM	23	105	77	32	193	71	26	256	13	67	250	15	1,128
	4:45 PM	21	120	93	22	182	35	32	225	12	61	286	17	1,106
	5:00 PM	36	111	95	40	233	55	42	208	18	69	231	15	1,153
	5:15 PM	38	123	87	32	210	35	40	264	18	70	250	16	1,183
	5:30 PM	24	115	85	35	155	40	42	197	12	68	229	12	1,014
	5:45 PM	28	102	83	24	145	22	46	223	17	74	221	13	998
	VOLUMES	237	906	690	235	1,463	356	298	1,793	122	499	1,904	105	8,608
	APPROACH %	13%	49%	38%	11%	71%	17%	13%	81%	6%	20%	76%	4%	
	APP/DEPART	1,833	/	1,193	2,054	/	2,094	2,213	/	2,716	2,508	/	2,605	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	114	459	352	126	818	196	85	953	61	267	1,017	63	4,570
	APPROACH %	12%	49%	38%	11%	72%	17%	7%	83%	5%	20%	76%	5%	
	PEAK HR FACTOR	0.936			0.869			0.896			0.925			0.966
	APP/DEPART	929	/	607	1,140	/	1,150	1,154	/	1,431	1,347	/	1,382	0

2	0	9	0	11
1	0	5	0	6
0	0	6	0	6
1	1	10	0	12
0	0	9	0	9
1	0	13	0	14
1	0	12	0	13
1	0	10	0	11
7	1	74	0	82

2	2	18	0	22
0	0	11	0	11
1	0	11	0	12
0	0	9	0	9
0	0	22	0	22
3	0	13	0	16
1	0	14	0	15
3	0	20	0	23
10	2	118	0	130



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Bloomfield Imperial	PROJECT #: LOCATION #: CONTROL:	SC2721 21 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

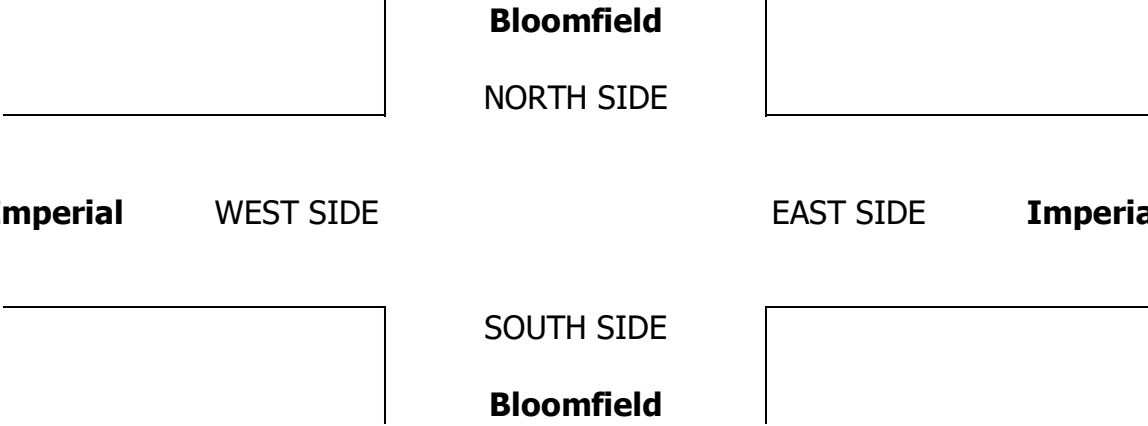
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	6	2	5	2	8	5	12	1	2	17	0	61
	7:15 AM	0	2	3	2	15	11	9	10	0	4	22	2	80
	7:30 AM	1	3	4	0	9	4	6	18	2	2	19	1	69
	7:45 AM	0	8	2	3	7	3	6	16	1	6	21	1	74
	8:00 AM	1	8	7	5	17	10	5	11	0	2	28	3	97
	8:15 AM	1	7	6	3	8	6	2	24	2	7	20	1	87
	8:30 AM	1	5	7	4	7	3	2	11	1	5	12	3	61
	8:45 AM	0	7	2	1	3	1	0	11	1	2	21	2	51
	VOLUMES	5	46	33	23	68	46	35	113	8	30	160	13	580
	APPROACH %	6%	55%	39%	17%	50%	34%	22%	72%	5%	15%	79%	6%	
	APP/DEPART	84	/	91	137	/	106	156	/	169	203	/	214	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	2	21	16	10	48	28	23	55	3	14	90	7	320
PM	APPROACH %	5%	54%	41%	12%	56%	33%	27%	65%	4%	13%	81%	6%	
	PEAK HR FACTOR	0.609			0.672			0.808			0.841			0.825
	APP/DEPART	39	/	51	86	/	65	84	/	81	111	/	123	0
	04:00 PM	0	9	5	2	6	1	5	17	1	7	11	3	67
	4:15 PM	0	10	3	2	11	0	5	18	0	2	13	3	67
	4:30 PM	2	9	6	1	2	2	3	25	0	3	12	1	66
	4:45 PM	2	10	5	2	3	1	4	11	0	4	13	2	57
	5:00 PM	1	6	10	1	5	1	4	12	1	4	3	2	50
	5:15 PM	2	5	8	1	6	0	2	9	1	0	9	2	45
	5:30 PM	0	4	1	0	3	0	4	12	0	3	14	0	41
	5:45 PM	1	1	4	2	7	0	1	13	1	0	10	0	40
	VOLUMES	8	54	42	11	43	5	28	117	4	23	85	13	433
	APPROACH %	8%	52%	40%	19%	73%	8%	19%	79%	3%	19%	70%	11%	
	APP/DEPART	104	/	94	59	/	71	149	/	170	121	/	98	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	6	30	29	5	16	4	12	57	2	11	37	7	218
	APPROACH %	9%	45%	44%	20%	64%	16%	17%	79%	3%	20%	67%	13%	
	PEAK HR FACTOR	0.971			0.893			0.643			0.724			0.826
	APP/DEPART	66	/	49	25	/	30	72	/	91	55	/	48	0

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3

0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	1	0	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
21  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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N  
◀ W  
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▼

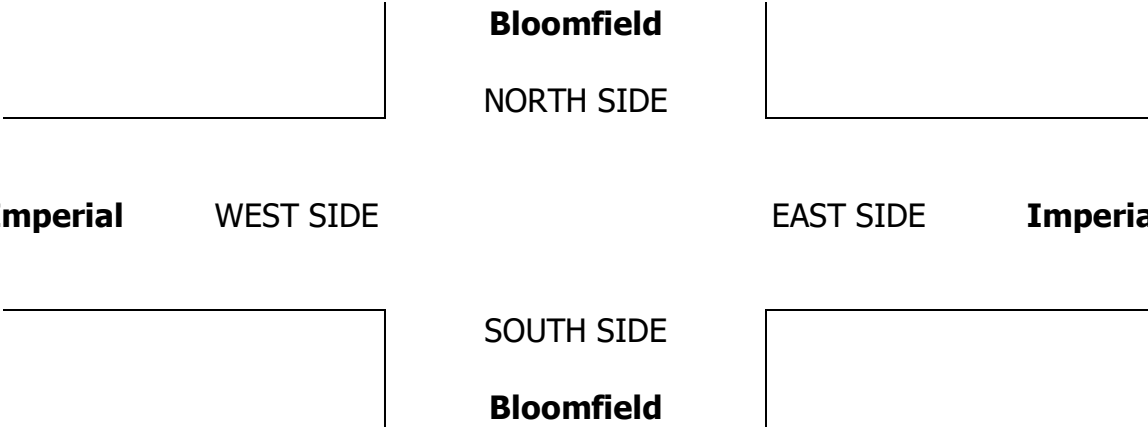
E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

AM	7:00 AM	0	0	0	0	1	1	0	4	0	0	5	0	11
	7:15 AM	0	0	0	0	0	0	0	6	0	0	4	1	11
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:00 AM	0	0	0	1	0	0	0	2	0	0	1	0	4
	8:15 AM	0	0	0	0	1	0	0	1	0	0	2	1	5
	8:30 AM	0	1	0	0	1	0	0	1	0	0	0	0	3
	8:45 AM	0	0	0	0	0	0	0	1	0	0	7	0	8
	VOLUMES	0	1	0	1	3	1	0	17	0	0	21	2	46
	APPROACH %	0%	100%	0%	20%	60%	20%	0%	100%	0%	0%	91%	9%	
	APP/DEPART	1	/	3	5	/	3	17	/	18	23	/	22	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	0	0	0	1	0	0	0	10	0	0	7	1	19
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	88%	13%	
	PEAK HR FACTOR	0.000			0.250			0.417			0.400			0.432
	APP/DEPART	0	/	1	1	/	0	10	/	11	8	/	7	0
	04:00 PM	0	0	0	0	0	0	0	2	0	0	0	2	4
	4:15 PM	0	0	1	0	0	0	0	5	0	0	1	1	8
	4:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
PM	4:45 PM	0	0	0	0	0	0	1	1	0	0	1	0	3
	5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	3	0	0	1	0	4
	5:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	3
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	1	1	0	2	1	13	0	0	5	3	26
	APPROACH %	0%	0%	100%	33%	0%	67%	7%	93%	0%	0%	63%	38%	
	APP/DEPART	1	/	4	3	/	0	14	/	15	8	/	7	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	1	0	1	1	5	0	0	2	0	10
	APPROACH %	0%	0%	0%	50%	0%	50%	17%	83%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.500			0.500			0.500			0.625
	APP/DEPART	0	/	1	2	/	0	6	/	6	2	/	3	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
21  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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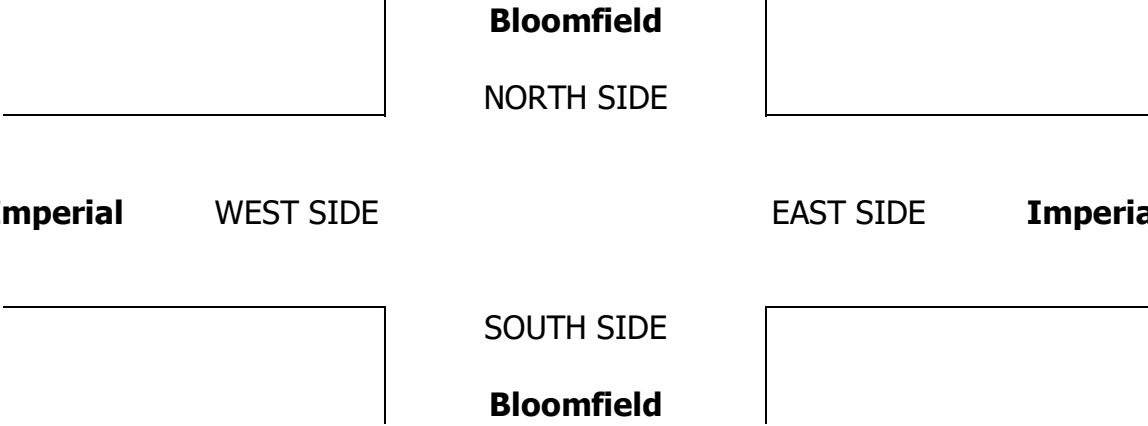
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	2	0	0	0	8	0	0	10	2	22
	7:15 AM	0	1	0	2	1	1	0	3	0	0	17	0	25
	7:30 AM	0	0	0	2	0	0	1	4	0	0	10	0	17
	7:45 AM	0	0	1	3	0	1	0	7	0	0	11	2	25
	8:00 AM	0	2	0	0	0	1	0	7	0	2	9	1	22
	8:15 AM	0	0	0	2	2	0	1	10	0	0	7	1	23
	8:30 AM	2	1	0	1	1	1	1	4	0	0	9	0	20
	8:45 AM	0	0	0	0	0	0	5	0	0	4	1	1	10
	VOLUMES	2	4	1	12	4	4	3	48	0	2	77	7	164
	APPROACH %	29%	57%	14%	60%	20%	20%	6%	94%	0%	2%	90%	8%	
	APP/DEPART	7	/	14	20	/	6	51	/	61	86	/	83	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	0	3	1	7	1	3	1	21	0	2	47	3	89
PM	APPROACH %	0%	75%	25%	64%	9%	27%	5%	95%	0%	4%	90%	6%	
	PEAK HR FACTOR	0.500			0.688			0.786			0.765			0.890
	APP/DEPART	4	/	7	11	/	3	22	/	29	52	/	50	0
	04:00 PM	0	0	0	0	3	0	0	6	0	1	4	1	15
	4:15 PM	0	0	0	2	0	1	2	8	0	0	2	0	15
	4:30 PM	0	0	0	1	0	1	2	8	0	0	4	1	17
	4:45 PM	0	0	0	3	1	2	0	6	0	0	2	0	14
	5:00 PM	0	0	0	0	0	0	1	3	0	0	9	1	14
	5:15 PM	0	0	0	3	0	0	1	10	0	0	7	0	21
	5:30 PM	0	1	0	0	1	1	0	2	0	0	3	3	11
	5:45 PM	0	0	0	2	0	0	1	4	0	0	3	0	10
	VOLUMES	0	1	0	11	5	5	7	47	0	1	34	6	117
	APPROACH %	0%	100%	0%	52%	24%	24%	13%	87%	0%	2%	83%	15%	
	APP/DEPART	1	/	14	21	/	6	54	/	58	41	/	39	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	7	1	3	4	27	0	0	22	2	66
	APPROACH %	0%	0%	0%	64%	9%	27%	13%	87%	0%	0%	92%	8%	
	PEAK HR FACTOR	0.000			0.458			0.705			0.600			0.786
	APP/DEPART	0	/	6	11	/	1	31	/	34	24	/	25	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
21  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
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OTHER  
OTHER

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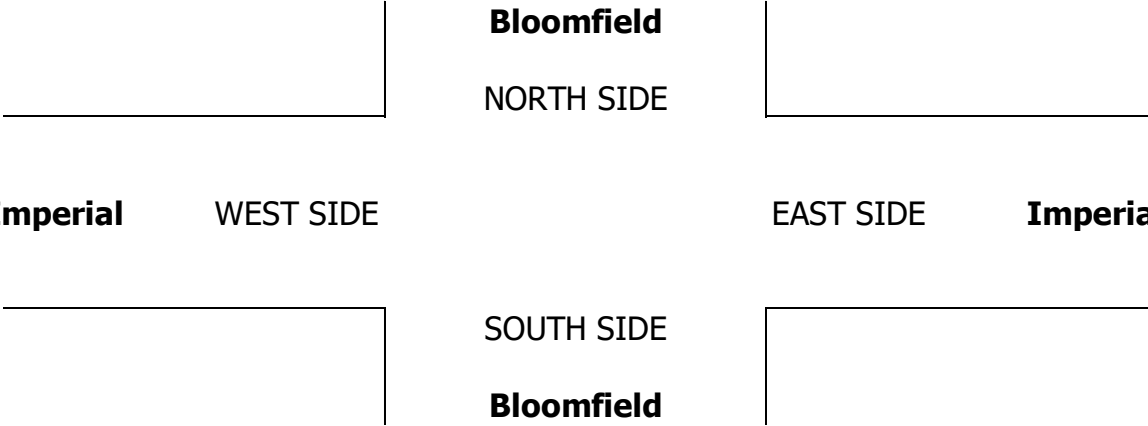
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Bloomfield			Bloomfield			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	0	0	1	0	2
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	1	1	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	1	0	0	0	0	0	0	1	0	2
PM	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.250		
	APP/DEPART	1	/	0	0	/	0	0	/	1	1	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	1	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	0	/	0	0	/	1	0	/	0	1	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Bloomfield  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
21  
SIGNAL

CLASS 6:

NOTES:

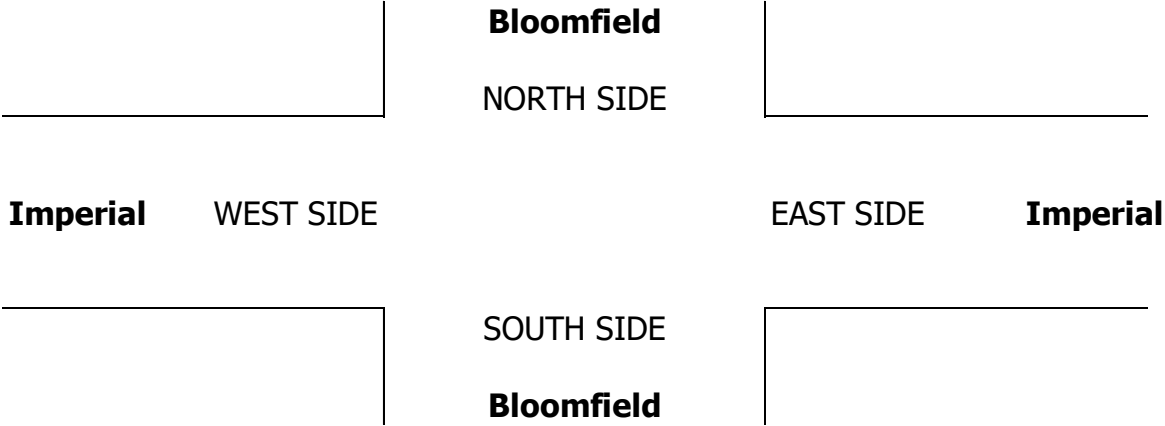
AM  
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OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Bloomfield			Bloomfield			Imperial			Imperial				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL					
AM	7:00 AM	0	1	0	0	0	0	6	0	0	1	0	8	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	2	0	0	1	0	4	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	1	1	0	2	0	4	0	0	0	0	0
	7:45 AM	0	0	0	0	1	0	1	0	2	1	0	5	0	0	0	0	0
	8:00 AM	0	0	0	0	1	0	3	0	1	2	0	8	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	1	0	0	3	0	4	0	0	0	0	0
	8:30 AM	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	2	0	2	0	0	5	0	0	0	0	0
	VOLUMES	0	2	0	0	3	1	17	1	5	10	0	40					
	APPROACH %	0%	100%	0%	0%	75%	25%	5%	89%	5%	33%	67%	0%					
PM	APP/DEPART	2	/	3	4	/	9	19	/	17	15	/	11	0				
	BEGIN PEAK HR	7:15 AM																
	VOLUMES	0	0	0	0	3	0	1	7	1	3	6	0	21				
	APPROACH %	0%	0%	0%	0%	100%	0%	11%	78%	11%	33%	67%	0%					
	PEAK HR FACTOR	0.000			0.750			0.563			0.750			0.656				
	APP/DEPART	0	/	1	3	/	7	9	/	7	9	/	6	0				
	04:00 PM	0	1	0	0	1	0	0	1	0	0	0	0	3	0	0	0	0
	4:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0
	4:30 PM	0	2	0	0	0	0	0	1	0	1	2	0	6	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	1	0	0	1	0	3	0	0	0	0
	5:00 PM	0	0	1	0	0	0	0	0	0	0	2	0	3	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	1	0	0	1	0	3	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	1	0	1	0	0	3	0	0	0	0
	VOLUMES	0	4	2	0	3	0	0	5	0	3	7	0	24				
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	100%	0%	30%	70%	0%					
	APP/DEPART	6	/	4	3	/	6	5	/	7	10	/	7	0				
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	2	1	0	1	0	0	2	0	2	5	0	13				
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	100%	0%	29%	71%	0%					
	PEAK HR FACTOR	0.375			0.250			0.500			0.583			0.542				
	APP/DEPART	3	/	2	1	/	3	2	/	3	7	/	5	0				



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
22  
SIGNAL

NOTES:

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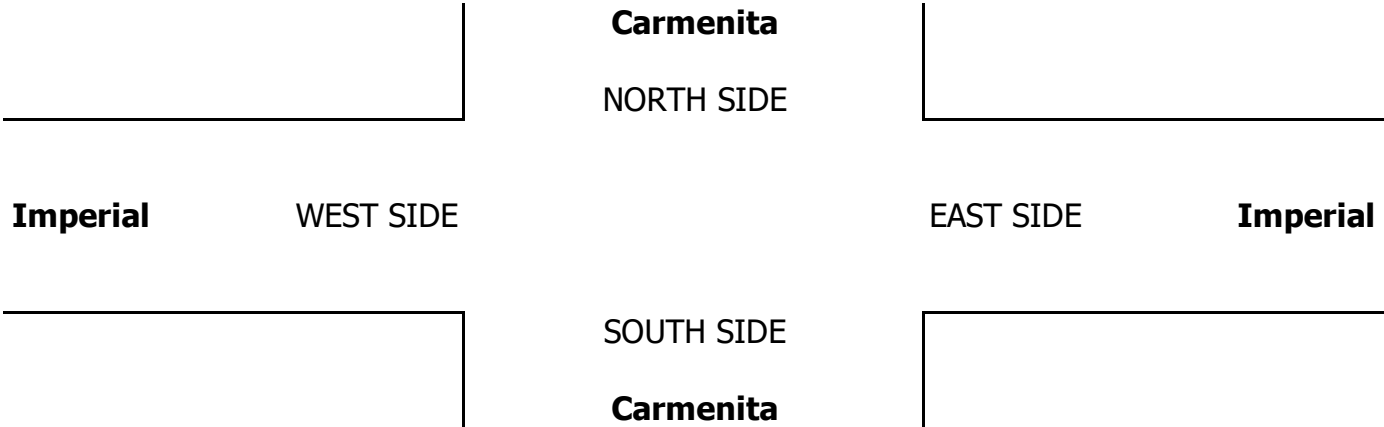
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☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
		Carmenita			Carmenita			Imperial			Imperial			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		1	2	0	1	2	0	1	3	0	1	3	0	
AM	7:00 AM	21	111	10	21	206	5	10	98	31	35	128	4	680
	7:15 AM	18	137	9	13	212	6	15	122	25	48	195	15	815
	7:30 AM	27	165	16	17	241	5	9	125	38	28	169	13	853
	7:45 AM	41	156	26	30	208	10	18	129	41	46	196	24	925
	8:00 AM	29	169	21	20	221	6	12	122	19	36	158	12	825
	8:15 AM	25	122	33	22	177	15	14	131	27	39	156	18	779
	8:30 AM	35	147	27	20	181	5	18	88	22	33	157	22	755
	8:45 AM	31	147	32	17	137	8	16	98	22	25	117	18	668
	VOLUMES	227	1,154	174	160	1,583	60	112	913	225	290	1,276	126	6,300
	APPROACH %	15%	74%	11%	9%	88%	3%	9%	73%	18%	17%	75%	7%	
APP/DEPART	1,555	/	1,386	1,803	/	2,087	1,250	/	1,242	1,692	/	1,585	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	115	627	72	80	882	27	54	498	123	158	718	64	3,418	
APPROACH %	14%	77%	9%	8%	89%	3%	8%	74%	18%	17%	76%	7%		
PEAK HR FACTOR	0.913			0.940			0.898			0.883			0.924	
APP/DEPART	814	/	746	989	/	1,157	675	/	648	940	/	867	0	
PM	04:00 PM	36	226	29	24	182	9	29	168	23	35	146	24	931
	4:15 PM	45	274	34	23	185	10	27	197	29	40	129	37	1,030
	4:30 PM	30	253	23	23	216	19	33	200	32	27	173	30	1,059
	4:45 PM	34	272	39	20	169	18	30	181	42	34	173	24	1,036
	5:00 PM	29	284	61	18	182	16	34	179	21	34	164	31	1,053
	5:15 PM	39	282	55	26	182	14	23	218	26	40	171	25	1,101
	5:30 PM	40	266	23	30	184	14	36	159	23	38	156	43	1,012
	5:45 PM	23	228	32	15	175	19	39	188	23	29	157	37	965
	VOLUMES	276	2,085	296	179	1,475	119	251	1,490	219	277	1,269	251	8,187
	APPROACH %	10%	78%	11%	10%	83%	7%	13%	76%	11%	15%	71%	14%	
APP/DEPART	2,657	/	2,539	1,773	/	1,956	1,960	/	1,959	1,797	/	1,733	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	132	1,091	178	87	749	67	120	778	121	135	681	110	4,249	
APPROACH %	9%	78%	13%	10%	83%	7%	12%	76%	12%	15%	74%	12%		
PEAK HR FACTOR	0.932			0.875			0.954			0.981			0.965	
APP/DEPART	1,401	/	1,298	903	/	998	1,019	/	1,038	926	/	915	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	
0	4	5	1	10
1	1	1	4	7
0	3	2	3	8
1	5	5	0	11
1	2	2	2	7
1	1	4	1	7
0	2	5	3	10
1	3	3	2	9
5	21	27	16	69

1	1	5	0	7
0	2	8	4	14
0	2	13	1	16
0	3	5	0	8
0	5	10	5	20
1	3	8	2	14
0	6	12	3	21
0	1	10	2	13
2	23	71	17	113



AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
PM	TOTAL
	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
TOTAL	

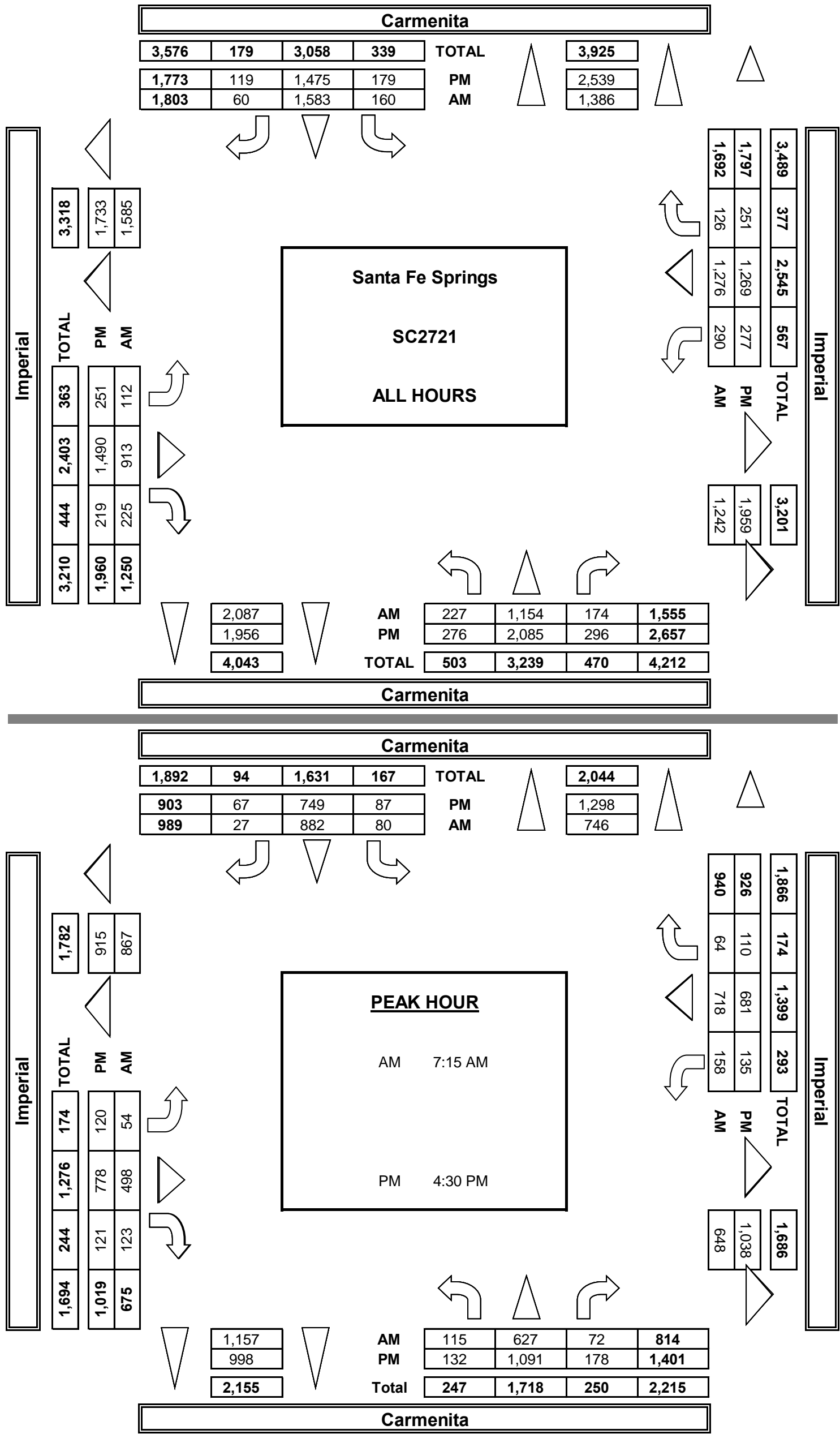
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N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	3	1	1	6
0	3	0	2	5
0	1	1	0	2
1	0	0	0	1
0	2	2	0	4
0	0	0	1	1
0	1	0	2	3
1	2	0	0	3
3	12	4	6	25
3	5	4	5	17
2	1	0	2	5
2	1	1	0	4
2	3	1	3	9
2	1	2	2	7
3	3	2	1	9
1	1	1	0	3
0	0	2	1	3
15	15	13	14	57

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	3	1	0	5
0	3	0	0	3
0	0	1	0	1
0	0	0	0	0
0	2	2	0	4
0	0	0	0	0
0	0	0	1	1
1	1	0	0	2
2	9	4	1	16
3	3	4	3	13
2	1	0	1	4
2	0	1	0	3
0	3	1	1	5
2	0	2	1	5
3	3	0	1	7
1	0	0	0	1
0	0	1	1	2
13	10	9	8	40

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	1	1
0	0	0	2	2
0	1	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	1	1
0	1	0	1	2
0	1	0	0	1
1	3	0	5	9
0	2	0	2	4
0	0	0	1	1
0	1	0	0	1
2	0	0	2	4
0	1	0	1	2
0	0	2	0	2
0	1	1	0	2
0	0	1	0	1
2	5	4	6	17



AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

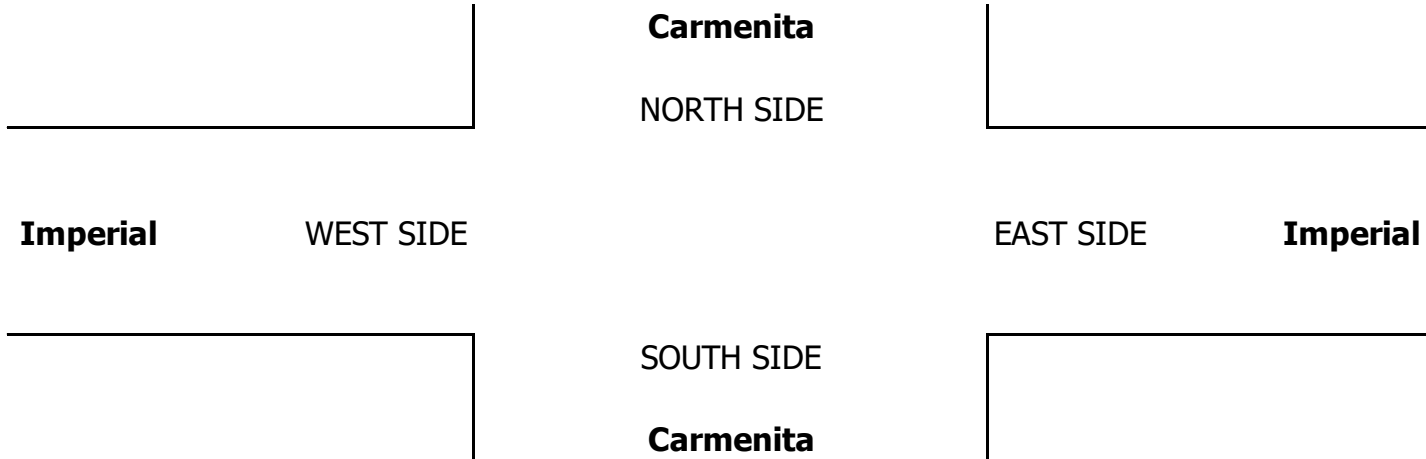
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Imperial	PROJECT #: LOCATION #: CONTROL:	SC2721 22 SIGNAL
-----------------------------	---	---	---------------------------------------	------------------------

PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Imperial			Imperial				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	31	117	13	23	214	6	10	113	47	38	142	4	755					0
	7:15 AM	35	149	10	14	226	7	15	141	41	52	204	16	907					0
	7:30 AM	43	183	21	17	257	6	10	149	56	32	187	13	970					0
	7:45 AM	50	170	27	32	223	10	20	142	63	49	208	26	1,018					0
	8:00 AM	39	184	24	23	239	8	14	130	28	40	179	12	917					0
	8:15 AM	33	131	44	25	193	16	14	154	38	43	173	20	881					0
	8:30 AM	46	156	32	22	194	6	19	98	36	38	168	27	840					0
	8:45 AM	42	165	37	18	150	10	17	105	29	26	125	19	742					0
	VOLUMES	317	1,253	205	172	1,694	67	119	1,029	336	316	1,385	137	7,027	0	0	0	0	0
	APPROACH %	18%	71%	12%	9%	88%	3%	8%	69%	23%	17%	75%	7%						
APP/DEPART	1,775	/	1,508	1,932	/	2,346	1,483	/	1,406	1,837	/	1,768	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	166	685	81	85	944	30	59	560	187	172	778	67	3,811						
APPROACH %	18%	74%	9%	8%	89%	3%	7%	70%	23%	17%	77%	7%							
PEAK HR FACTOR	0.944			0.948			0.898			0.899			0.936						
APP/DEPART	931	/	811	1,059	/	1,302	805	/	726	1,016	/	973	0						
PM	04:00 PM	42	243	34	26	193	10	30	185	26	38	161	27	1,012					0
	4:15 PM	58	286	39	24	200	10	27	214	41	41	136	41	1,115					0
	4:30 PM	40	270	24	24	227	19	34	212	37	29	185	33	1,130					0
	4:45 PM	42	283	46	24	177	18	31	196	53	35	181	26	1,110					0
	5:00 PM	38	295	63	19	194	16	35	192	23	38	178	34	1,124					0
	5:15 PM	46	294	61	27	186	14	23	229	35	45	186	26	1,169					0
	5:30 PM	51	276	25	31	190	15	37	167	28	40	163	44	1,066					0
	5:45 PM	26	239	33	19	179	20	39	197	30	33	164	40	1,017					0
	VOLUMES	341	2,184	322	193	1,546	121	255	1,590	271	298	1,353	269	8,741	0	0	0	0	0
	APPROACH %	12%	77%	11%	10%	83%	7%	12%	75%	13%	16%	70%	14%						
	APP/DEPART	2,847	/	2,708	1,860	/	2,115	2,116	/	2,104	1,920	/	1,814	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	165	1,141	192	93	784	67	122	828	147	147	730	118	4,533					
	APPROACH %	11%	76%	13%	10%	83%	7%	11%	75%	13%	15%	73%	12%						
PEAK HR FACTOR	0.937			0.876			0.958			0.969			0.969						
APP/DEPART	1,498	/	1,381	944	/	1,078	1,097	/	1,113	994	/	962	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
22  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
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E ▶

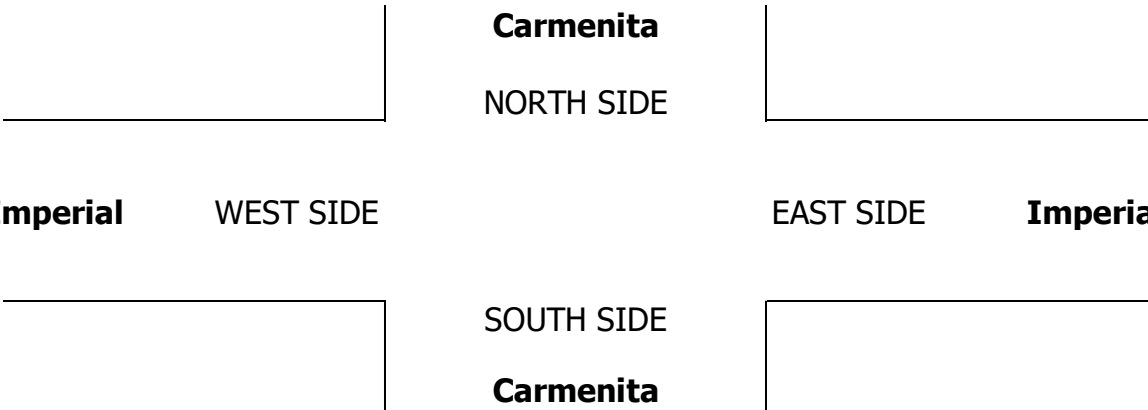
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Imperial			Imperial			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	13	102	8	19	195	4	10	85	19	30	115	4	604
	7:15 AM	7	123	8	12	191	5	15	105	12	44	182	14	718
	7:30 AM	15	143	9	17	222	4	7	101	27	24	151	13	733
	7:45 AM	29	134	24	26	190	10	17	114	26	43	183	20	816
	8:00 AM	18	149	17	16	193	3	10	111	11	32	136	12	708
	8:15 AM	17	111	21	19	158	14	14	103	17	31	142	16	663
	8:30 AM	28	132	24	17	163	4	16	74	11	29	146	16	660
	8:45 AM	20	125	25	16	121	5	14	90	14	23	107	17	577
	VOLUMES	147	1,019	136	142	1,433	49	103	783	137	256	1,162	112	5,479
	APPROACH %	11%	78%	10%	9%	88%	3%	10%	77%	13%	17%	76%	7%	
	APP/DEPART	1,302	/	1,227	1,624	/	1,815	1,023	/	1,057	1,530	/	1,380	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	66	549	58	60	796	22	39	431	76	134	652	59	2,975
	APPROACH %	10%	81%	9%	7%	90%	2%	7%	78%	14%	16%	76%	7%	
PM	PEAK HR FACTOR	0.904			0.915			0.885			0.868			0.911
	APP/DEPART	676	/	658	889	/	1,009	556	/	558	854	/	750	0
	04:00 PM	30	201	26	21	169	8	27	153	20	32	130	21	838
	4:15 PM	30	256	31	21	162	10	27	184	20	39	121	30	931
	4:30 PM	23	233	22	22	198	19	32	188	25	25	160	27	974
	4:45 PM	30	255	32	17	160	18	28	171	33	32	163	21	960
	5:00 PM	22	268	59	17	168	16	33	167	18	32	149	28	977
	5:15 PM	31	268	50	25	175	14	23	210	18	36	157	24	1,031
	5:30 PM	33	255	22	28	175	13	34	151	19	37	149	42	958
	5:45 PM	21	217	30	13	167	17	39	178	18	25	149	35	909
	VOLUMES	220	1,953	272	164	1,374	115	243	1,402	171	258	1,178	228	7,578
	APPROACH %	9%	80%	11%	10%	83%	7%	13%	77%	9%	16%	71%	14%	
	APP/DEPART	2,445	/	2,375	1,653	/	1,789	1,816	/	1,832	1,664	/	1,582	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	105	1,024	163	69	701	67	80	736	94	118	629	100	3,942
	APPROACH %	8%	79%	13%	8%	83%	8%	8%	78%	10%	14%	74%	12%	
	PEAK HR FACTOR	0.926			0.888			0.942			0.984			0.956
	APP/DEPART	1,293	/	1,216	849	/	914	946	/	975	854	/	837	0

0	3	5	1	9
1	1	1	4	7
0	3	2	3	8
1	5	5	0	11
1	2	2	2	7
1	1	4	1	7
0	2	5	3	10
1	3	3	2	9
5	20	27	16	68

1	1	5	0	7
0	2	8	4	14
0	2	13	1	16
0	2	5	0	7
0	5	10	5	20
1	3	8	1	13
0	6	12	3	21
0	1	10	2	13
2	22	71	16	111



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Imperial	PROJECT #: LOCATION #: CONTROL:	SC2721 22 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

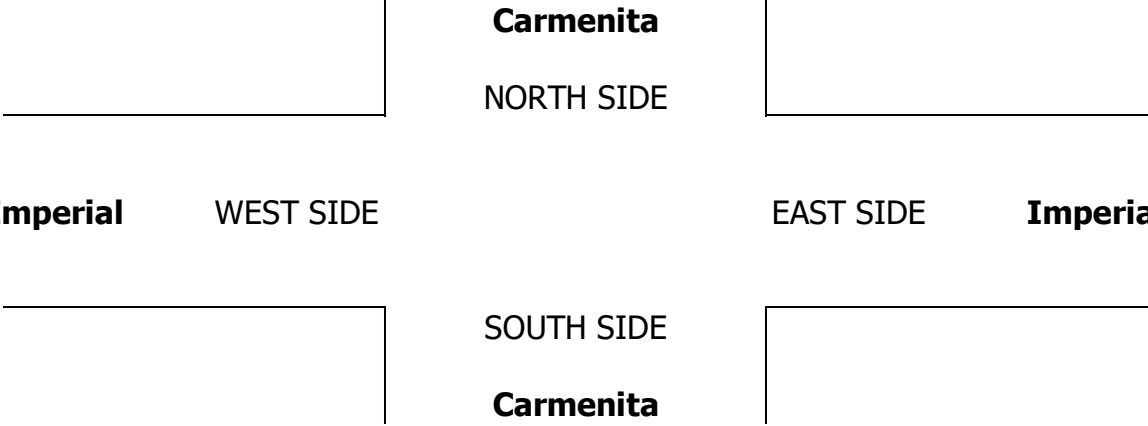
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	3	8	1	1	9	0	0	5	5	5	8	0	45
	7:15 AM	3	10	1	1	18	1	0	7	7	3	10	0	61
	7:30 AM	5	17	5	0	15	1	2	13	3	3	10	0	74
	7:45 AM	10	17	2	4	13	0	0	11	5	2	7	4	75
	8:00 AM	7	16	3	3	24	3	1	9	4	3	14	0	87
	8:15 AM	5	9	7	2	14	1	0	19	6	8	5	1	77
	8:30 AM	2	14	1	3	14	1	2	10	5	2	7	4	65
	8:45 AM	6	15	6	1	11	2	2	4	6	2	6	0	61
	VOLUMES	41	106	26	15	118	9	7	78	41	28	67	9	545
	APPROACH %	24%	61%	15%	11%	83%	6%	6%	62%	33%	27%	64%	9%	
	APP/DEPART	173	/	123	142	/	187	126	/	118	104	/	117	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	25	60	11	8	70	5	3	40	19	11	41	4	297
PM	APPROACH %	26%	63%	11%	10%	84%	6%	5%	65%	31%	20%	73%	7%	
	PEAK HR FACTOR	0.828			0.692			0.861			0.824			0.853
	APP/DEPART	96	/	67	83	/	100	62	/	59	56	/	71	0
	04:00 PM	3	22	1	3	8	1	2	9	2	2	9	2	64
	4:15 PM	11	15	1	2	20	0	0	4	4	1	5	6	69
	4:30 PM	3	15	1	1	16	0	1	7	6	1	9	2	62
	4:45 PM	0	14	5	1	6	0	2	3	3	2	6	3	45
	5:00 PM	2	14	1	0	8	0	1	4	2	0	6	2	40
	5:15 PM	5	11	3	0	6	0	0	1	5	2	8	1	42
	5:30 PM	2	8	0	2	8	1	2	4	1	0	4	1	33
	5:45 PM	1	7	2	0	8	2	0	7	1	2	6	1	37
	VOLUMES	27	106	14	9	80	4	8	39	24	10	53	18	392
	APPROACH %	18%	72%	10%	10%	86%	4%	11%	55%	34%	12%	65%	22%	
	APP/DEPART	147	/	132	93	/	113	71	/	63	81	/	84	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	10	54	10	2	36	0	4	15	16	4	29	8	189
	APPROACH %	14%	73%	14%	5%	95%	0%	11%	43%	46%	10%	69%	19%	
	PEAK HR FACTOR	0.974			0.559			0.625			0.875			0.762
	APP/DEPART	74	/	66	38	/	56	35	/	28	42	/	39	0

0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Imperial	PROJECT #: LOCATION #: CONTROL:	SC2721 22 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N</div><div>◀ W</div><div>S</div><div>E ▶</div><div>▼</div></div>

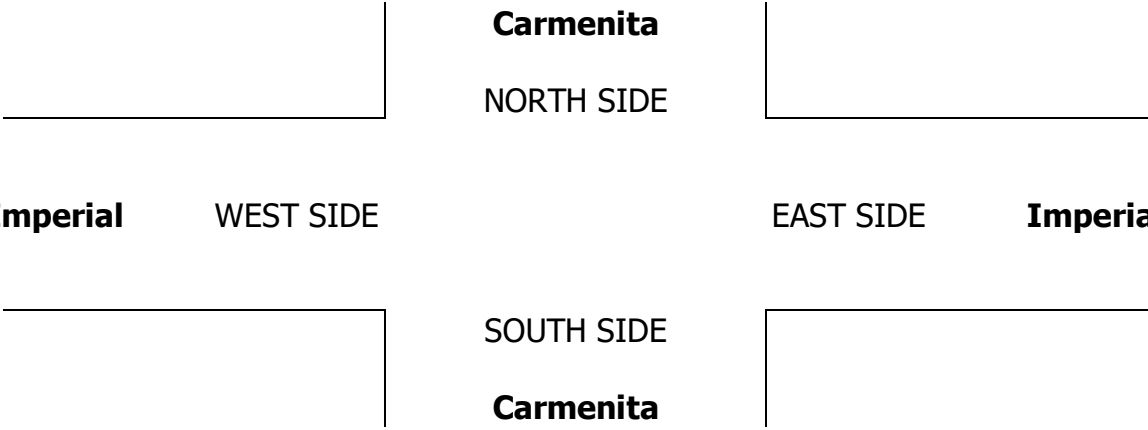
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Imperial			Imperial			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	0	0	1	1	1	0	1	1	0	0	0	7
	7:15 AM	1	1	0	0	0	0	0	4	0	0	2	1	9
	7:30 AM	1	1	2	0	0	0	0	4	0	0	0	0	8
	7:45 AM	0	5	0	0	0	0	0	1	1	0	0	0	7
	8:00 AM	1	1	1	0	2	0	1	0	1	0	2	0	9
	8:15 AM	1	0	3	0	1	0	0	1	0	0	3	1	10
	8:30 AM	0	0	0	0	2	0	0	2	1	0	1	1	7
	8:45 AM	1	4	0	0	3	1	0	3	0	0	1	1	14
	VOLUMES	7	12	6	1	9	2	1	16	4	0	9	4	71
	APPROACH %	28%	48%	24%	8%	75%	17%	5%	76%	19%	0%	69%	31%	
	APP/DEPART	25	/	17	12	/	13	21	/	23	13	/	18	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	8	3	0	2	0	1	9	2	0	4	1	33
	APPROACH %	21%	57%	21%	0%	100%	0%	8%	75%	17%	0%	80%	20%	
	PEAK HR FACTOR	0.700			0.250			0.750			0.417			0.917
	APP/DEPART	14	/	10	2	/	4	12	/	12	5	/	7	0
PM	04:00 PM	2	0	0	0	3	0	0	0	0	0	3	0	8
	4:15 PM	1	2	0	0	1	0	0	2	0	0	0	1	7
	4:30 PM	0	1	0	0	1	0	0	1	0	1	0	0	4
	4:45 PM	0	1	0	1	1	0	0	1	3	0	1	0	8
	5:00 PM	2	0	1	1	4	0	0	4	1	0	5	0	18
	5:15 PM	2	0	0	0	1	0	0	4	0	0	0	0	7
	5:30 PM	0	0	0	0	0	0	0	1	2	0	0	0	3
	5:45 PM	0	1	0	0	0	0	0	0	1	1	0	0	3
	VOLUMES	7	5	1	2	11	0	0	13	7	2	9	1	58
	APPROACH %	54%	38%	8%	15%	85%	0%	0%	65%	35%	17%	75%	8%	
	APP/DEPART	13	/	6	13	/	20	20	/	16	12	/	16	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	4	2	1	2	7	0	0	10	4	1	6	0	37
	APPROACH %	57%	29%	14%	22%	78%	0%	0%	71%	29%	14%	86%	0%	
	PEAK HR FACTOR	0.583			0.450			0.700			0.350			0.514
	APP/DEPART	7	/	2	9	/	12	14	/	13	7	/	10	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
22  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
▼

E ▶

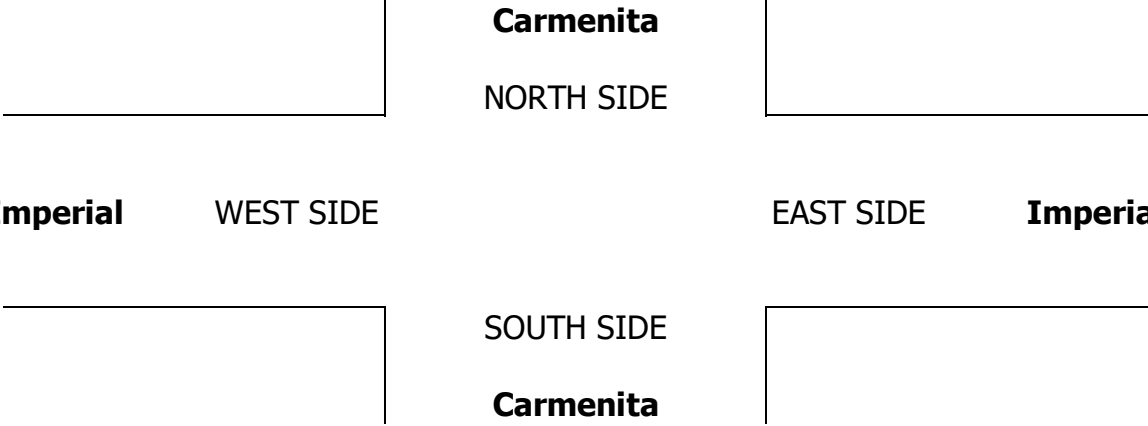
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Imperial			Imperial			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	1	3	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	3	1	1	0	1	0	0	4	6	0	5	0	21
	7:15 AM	7	3	0	0	2	0	0	5	6	1	1	0	25
	7:30 AM	6	4	0	0	4	0	0	6	8	1	5	0	34
	7:45 AM	2	0	0	0	3	0	1	3	9	1	2	0	21
	8:00 AM	2	3	0	0	2	0	0	1	3	1	6	0	18
	8:15 AM	2	2	2	1	4	0	0	4	4	0	5	0	24
	8:30 AM	5	1	2	0	2	0	0	1	5	2	3	1	22
	8:45 AM	3	3	1	0	2	0	0	1	2	0	1	0	13
	VOLUMES	30	17	6	1	20	0	1	25	43	6	28	1	178
	APPROACH %	57%	32%	11%	5%	95%	0%	1%	36%	62%	17%	80%	3%	
	APP/DEPART	53	/	19	21	/	69	69	/	32	35	/	58	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	17	10	0	0	11	0	1	15	26	4	14	0	98
	APPROACH %	63%	37%	0%	0%	100%	0%	2%	36%	62%	22%	78%	0%	
	PEAK HR FACTOR	0.675			0.688			0.750			0.643			0.721
	APP/DEPART	27	/	11	11	/	41	42	/	15	18	/	31	0
PM	04:00 PM	1	3	2	0	2	0	0	6	1	1	3	1	20
	4:15 PM	3	1	2	0	2	0	0	6	5	0	1	0	20
	4:30 PM	4	4	0	0	1	0	0	3	1	0	3	1	17
	4:45 PM	4	1	2	1	2	0	0	6	3	0	1	0	20
	5:00 PM	3	2	0	0	2	0	0	3	0	2	2	1	15
	5:15 PM	1	3	2	0	0	0	0	3	3	2	5	0	19
	5:30 PM	5	3	1	0	1	0	0	2	1	1	2	0	16
	5:45 PM	1	3	0	2	0	0	0	2	2	1	2	1	14
	VOLUMES	22	20	9	3	10	0	0	31	16	7	19	4	141
	APPROACH %	43%	39%	18%	23%	77%	0%	0%	66%	34%	23%	63%	13%	
	APP/DEPART	51	/	25	13	/	33	47	/	42	30	/	41	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	12	10	4	0	5	0	0	15	7	4	11	2	71
	APPROACH %	46%	38%	15%	0%	83%	0%	0%	68%	32%	24%	65%	12%	
	PEAK HR FACTOR	0.813			0.500			0.611			0.607			0.888
	APP/DEPART	26	/	13	6	/	16	22	/	19	17	/	23	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
22  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
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OTHER  
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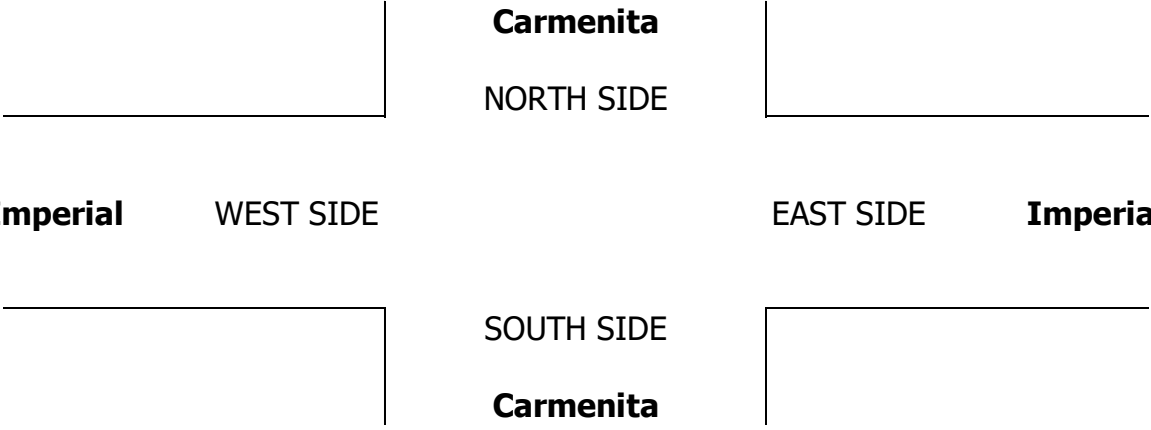
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Imperial			Imperial			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	1	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	1	0	1	0	0	0	0	3
	APPROACH %	100%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	1	/	1	1	/	1	/	1	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	1	0	0	0	1	0	0	1	0	0	0	3
PM	APPROACH %	100%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.250			0.250			0.000		
	APP/DEPART	1	/	0	1	/	1	1	/	1	/	1	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	1	0	0	0	0	0	1	0	3
	APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	1	/	1	1	/	0	0	/	1	/	1	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	1	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.250			0.000			0.000		
	APP/DEPART	1	/	1	1	/	0	0	/	1	/	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Imperial

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
22  
SIGNAL

CLASS 6:

NOTES:

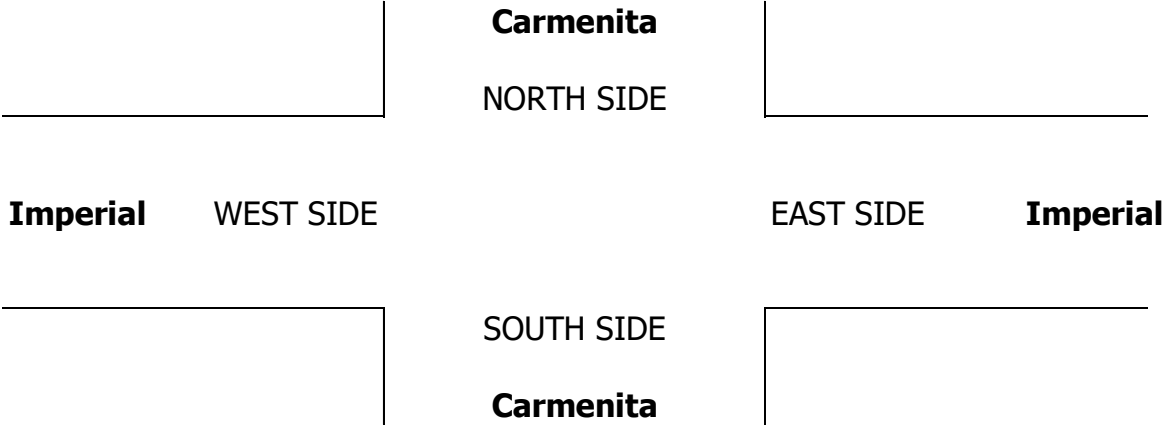
AM  
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OTHER

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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Imperial			Imperial				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL					
AM	7:00 AM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
	7:45 AM	0	0	0	0	2	0	0	0	0	4	0	6	0	0	0	0	0
	8:00 AM	0	0	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	4	0	0	1	0	5	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:45 AM	1	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0
	VOLUMES	1	0	0	1	2	0	10	0	0	10	0	24	0	0	0	0	0
	APPROACH %	100%	0%	0%	33%	67%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	1	/	0	3	/	2	/	11	10	/	11	0					
	BEGIN PEAK HR	7:15 AM																
PM	VOLUMES	0	0	0	1	2	0	2	0	0	7	0	12	0	0	0	0	0
	APPROACH %	0%	0%	0%	33%	67%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR	0.000			0.375			0.500			0.438			0.500				
	APP/DEPART	0	/	0	3	/	2	/	3	7	/	7	0					
	04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	5	1	0	9	0	15	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	83%	17%	0%	100%	0%						
	APP/DEPART	0	/	0	0	/	1	/	5	9	/	9	0					
	BEGIN PEAK HR	4:30 PM																
	VOLUMES	0	0	0	0	0	0	2	0	0	6	0	8					
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR	0.000			0.000			0.500			0.750			0.667				
	APP/DEPART	0	/	0	0	/	0	/	2	6	/	6	0					





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Rosecrans

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
23  
SIGNAL

NOTES:

AM  
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OTHER  
OTHER

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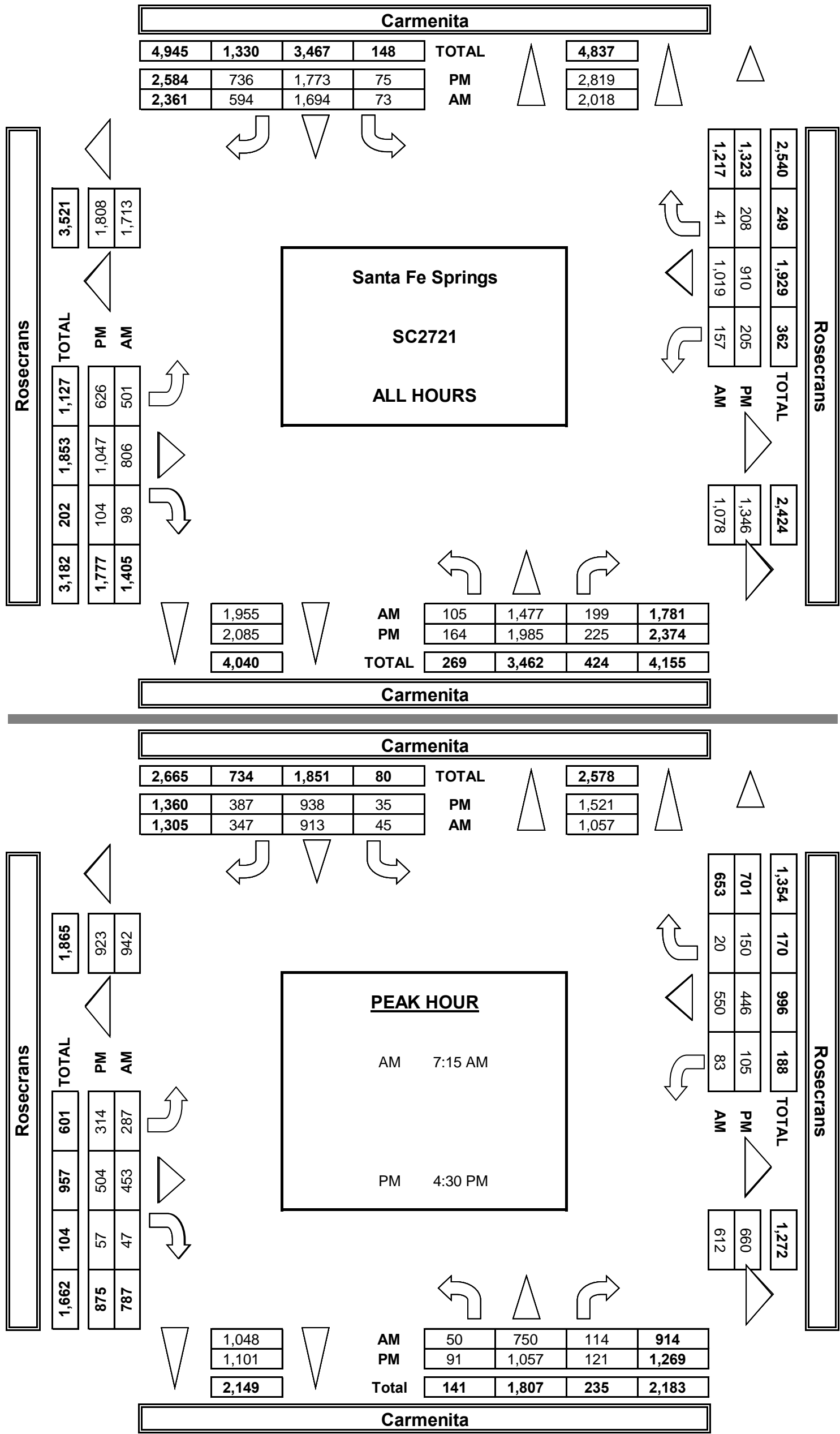
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Carmenita			Carmenita			Rosecrans			Rosecrans				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL	0	0	0	0	
AM	7:00 AM	7	163	23	7	196	63	43	102	9	22	157	4	796	0	0	0	0	0
	7:15 AM	10	166	29	5	253	77	57	87	15	24	154	5	882	0	0	0	0	0
	7:30 AM	15	194	25	10	220	107	69	127	7	24	99	4	901	3	0	0	0	3
	7:45 AM	12	213	34	14	225	91	91	140	13	17	159	3	1,012	1	0	0	0	1
	8:00 AM	13	177	26	16	215	72	70	99	12	18	138	8	864	1	0	0	0	1
	8:15 AM	16	186	21	10	208	66	56	104	8	16	151	7	849	1	0	0	0	1
	8:30 AM	16	187	18	4	200	62	55	57	17	24	94	4	738	0	0	1	0	1
	8:45 AM	16	191	23	7	177	56	60	90	17	12	67	6	722	0	0	0	0	0
	VOLUMES	105	1,477	199	73	1,694	594	501	806	98	157	1,019	41	6,764	6	0	1	0	7
	APPROACH %	6%	83%	11%	3%	72%	25%	36%	57%	7%	13%	84%	3%						
	APP/DEPART	1,781	/	2,018	2,361	/	1,955	1,405	/	1,078	1,217	/	1,713	0					
	BEGIN PEAK HR	7:15 AM																	
VOLUMES	50	750	114	45	913	347	287	453	47	83	550	20	3,659						
APPROACH %	5%	82%	12%	3%	70%	27%	36%	58%	6%	13%	84%	3%							
PEAK HR FACTOR	0.882			0.968			0.806			0.892			0.904						
APP/DEPART	914	/	1,057	1,305	/	1,048	787	/	612	653	/	942	0						
PM	04:00 PM	24	226	24	10	215	94	74	125	10	34	144	20	1,000	1	0	1	0	2
	4:15 PM	16	230	28	11	220	81	73	142	13	21	117	16	968	0	0	0	0	0
	4:30 PM	29	269	24	10	225	88	69	133	18	22	179	9	1,075	1	0	0	0	1
	4:45 PM	16	271	33	6	240	91	79	147	13	29	123	9	1,057	0	0	0	0	0
	5:00 PM	21	274	34	6	258	113	75	99	16	18	41	75	1,030	0	0	0	0	0
	5:15 PM	25	243	30	13	215	95	91	125	10	36	103	57	1,043	0	0	0	0	0
	5:30 PM	15	249	29	13	207	102	82	147	14	20	96	11	985	0	1	0	0	1
	5:45 PM	18	223	23	6	193	72	83	129	10	25	107	11	900	1	0	0	0	1
	VOLUMES	164	1,985	225	75	1,773	736	626	1,047	104	205	910	208	8,058	3	1	1	0	5
	APPROACH %	7%	84%	9%	3%	69%	28%	35%	59%	6%	15%	69%	16%						
	APP/DEPART	2,374	/	2,819	2,584	/	2,085	1,777	/	1,346	1,323	/	1,808	0					
	BEGIN PEAK HR	4:30 PM																	
VOLUMES	91	1,057	121	35	938	387	314	504	57	105	446	150	4,205						
APPROACH %	7%	83%	10%	3%	69%	28%	36%	58%	7%	15%	64%	21%							
PEAK HR FACTOR	0.964			0.902			0.915			0.835			0.978						
APP/DEPART	1,269	/	1,521	1,360	/	1,101	875	/	660	701	/	923	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
AM	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	2	4	0	3	9	1	1	0	1	3	1	3	0	2	6
	0	2	1	1	4	0	2	1	0	3	0	0	0	1	1
	1	3	0	1	5	0	1	0	1	2	1	2	0	0	3
	2	4	2	0	8	2	1	0	0	3	0	3	2	0	5
	0	2	1	2	5	0	1	0	0	1	0	1	1	2	4
	1	2	1	3	7	1	2	0	3	6	0	0	1	0	1
	3	3	1	3	10	2	3	1	3	9	1	0	0	0	1
	10	21	6	13	50	7	12	2	8	29	3	9	4	5	21
PM	2	3	1	3	9	1	2	1	3	7	1	1	0	0	2
	1	1	0	1	3	1	0	0	1	2	0	1	0	0	1
	2	0	1	0	3	2	0	1	0	3	0	0	0	0	0
	0	2	1	3	6	0	1	1	2	4	0	1	0	1	2
	1	3	1	3	8	1	1	1	2	5	0	2	0	1	3
	1	3	1	2	7	0	1	0	1	2	1	2	1	1	5
	1	2	0	0	3	0	1	0	0	1	1	1	0	0	2
	0	2	1	0	3	0	2	0	0	2	0	0	1	0	1
TOTAL						TOTAL					TOTAL				
						5	8	4	9	26	3	8	2	3	16

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

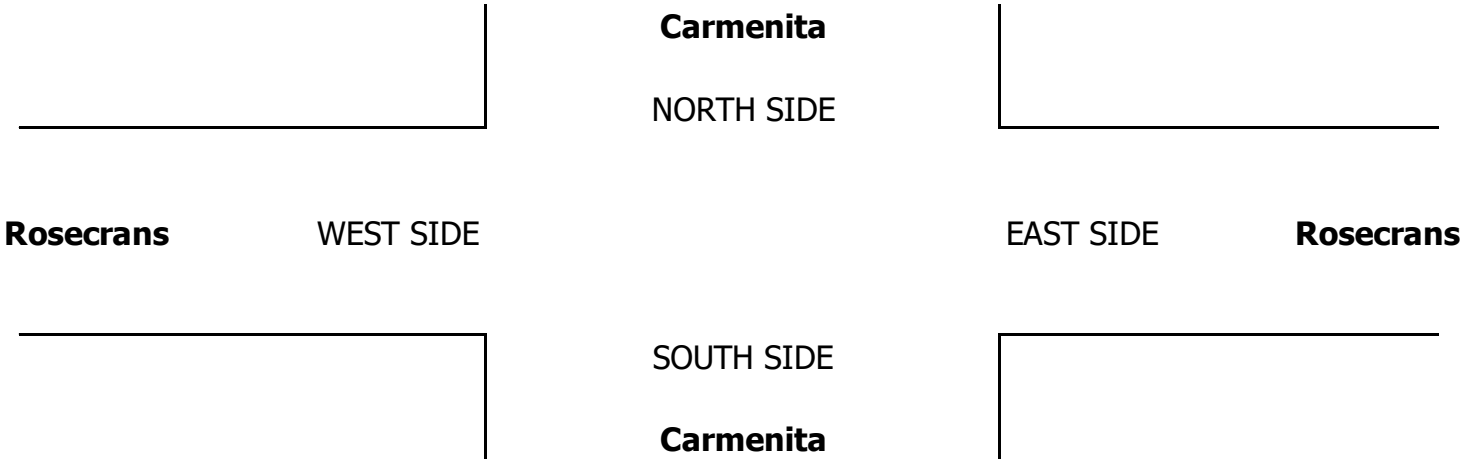
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Rosecrans	PROJECT #: LOCATION #: CONTROL:	SC2721 23 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Rosecrans			Rosecrans				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL					

AM	7:00 AM	8	177	27	7	234	71	46	119	11	32	169	6	906					0
	7:15 AM	11	184	42	6	289	81	57	93	19	34	166	6	985					0
	7:30 AM	18	224	28	12	253	119	73	141	8	31	106	7	1,019					0
	7:45 AM	13	243	38	18	251	95	96	151	13	23	176	3	1,118					0
	8:00 AM	15	207	31	19	254	85	78	112	14	32	152	10	1,005					0
	8:15 AM	18	206	28	12	227	72	63	115	9	23	170	10	949					0
	8:30 AM	17	213	24	9	232	78	61	66	19	34	103	5	859					0
	8:45 AM	18	221	33	8	211	68	72	101	20	21	74	8	853					0
	VOLUMES	117	1,673	249	90	1,949	667	544	896	112	228	1,115	55	7,693	0	0	0	0	0
	APPROACH %	6%	82%	12%	3%	72%	25%	35%	58%	7%	16%	80%	4%						
APP/DEPART	2,039	/	2,271	2,706	/	2,289	1,551	/	1,235	1,398	/	1,899	0						
BEGIN PEAK HR	7:15 AM																		
VOLUMES	57	857	138	54	1,046	380	303	496	53	119	600	26	4,127						
APPROACH %	5%	82%	13%	4%	71%	26%	36%	58%	6%	16%	81%	3%							
PEAK HR FACTOR	0.894			0.963			0.822			0.905			0.923						
APP/DEPART	1,052	/	1,186	1,480	/	1,218	852	/	688	744	/	1,036	0						
PM	04:00 PM	26	258	24	13	234	99	82	135	11	38	153	22	1,092					0
	4:15 PM	19	270	33	12	253	88	80	154	13	23	122	16	1,079					0
	4:30 PM	31	297	26	14	243	93	75	146	22	23	183	11	1,162					0
	4:45 PM	18	300	38	7	258	101	83	151	14	36	135	13	1,149					0
	5:00 PM	23	300	39	6	276	121	78	102	17	18	42	76	1,096					0
	5:15 PM	27	266	31	17	230	99	98	126	13	36	110	63	1,114					0
	5:30 PM	16	274	29	17	222	108	83	155	15	22	97	14	1,049					0
	5:45 PM	19	242	23	7	206	74	87	130	11	32	116	11	956					0
	VOLUMES	176	2,205	242	91	1,920	781	664	1,097	115	227	956	224	8,695	0	0	0	0	0
	APPROACH %	7%	84%	9%	3%	69%	28%	35%	58%	6%	16%	68%	16%						
	APP/DEPART	2,623	/	3,093	2,792	/	2,261	1,875	/	1,429	1,406	/	1,913	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	98	1,162	133	43	1,006	414	333	524	65	113	469	162	4,520					
	APPROACH %	7%	83%	10%	3%	69%	28%	36%	57%	7%	15%	63%	22%						
	PEAK HR FACTOR	0.966			0.907			0.935			0.857			0.973					
APP/DEPART	1,393	/	1,657	1,462	/	1,183	922	/	700	744	/	980	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Rosecrans	PROJECT #: LOCATION #: CONTROL:	SC2721 23 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S ▼ E ▶

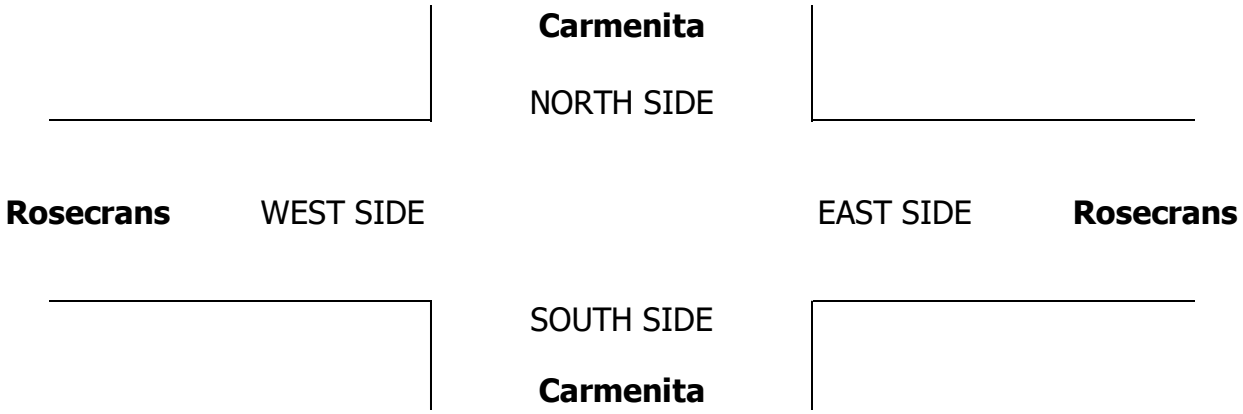
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Rosecrans			Rosecrans			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	6	150	21	7	160	55	38	88	7	15	149	3	699
	7:15 AM	8	152	19	4	219	70	57	81	10	15	142	4	781
	7:30 AM	13	170	23	6	190	92	63	115	6	19	93	2	792
	7:45 AM	11	186	32	12	194	83	85	129	13	12	146	3	906
	8:00 AM	11	151	21	12	178	57	63	88	10	9	122	4	726
	8:15 AM	13	167	15	6	183	59	49	92	7	12	133	4	740
	8:30 AM	14	162	14	1	170	48	50	50	14	16	83	2	624
	8:45 AM	13	160	16	6	143	43	50	80	15	7	60	5	598
	VOLUMES	89	1,298	161	54	1,437	507	455	723	82	105	928	27	5,866
	APPROACH %	6%	84%	10%	3%	72%	25%	36%	57%	7%	10%	88%	3%	
	APP/DEPART	1,548	/	1,779	1,998	/	1,630	1,260	/	938	1,060	/	1,519	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	38	659	95	34	781	302	268	413	39	55	503	13	3,205
	APPROACH %	5%	83%	12%	3%	70%	27%	37%	57%	5%	10%	88%	2%	
PM	PEAK HR FACTOR	0.870			0.953			0.793			0.887			0.884
	APP/DEPART	797	/	940	1,117	/	880	720	/	542	571	/	843	0
	04:00 PM	21	189	24	7	198	87	65	112	9	31	134	17	894
	4:15 PM	12	197	25	10	193	72	66	128	13	20	110	16	862
	4:30 PM	27	243	23	6	208	82	64	122	15	20	174	8	992
	4:45 PM	14	243	30	5	223	84	73	143	12	25	111	6	969
	5:00 PM	18	244	31	6	243	107	70	94	15	18	40	74	960
	5:15 PM	23	222	29	9	205	91	83	124	8	36	96	52	978
	5:30 PM	14	229	29	11	195	99	81	138	13	17	94	9	929
	5:45 PM	17	204	23	5	182	69	78	128	9	21	100	11	847
	VOLUMES	146	1,771	214	59	1,647	691	580	989	94	188	859	193	7,431
	APPROACH %	7%	83%	10%	2%	69%	29%	35%	59%	6%	15%	69%	16%	
	APP/DEPART	2,131	/	2,544	2,397	/	1,932	1,663	/	1,261	1,240	/	1,694	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	81	952	113	26	879	364	290	483	50	99	421	140	3,899
	APPROACH %	7%	83%	10%	2%	69%	29%	35%	59%	6%	15%	64%	21%	
	PEAK HR FACTOR	0.979			0.891			0.902			0.817			0.983
	APP/DEPART	1,147	/	1,382	1,269	/	1,029	823	/	622	660	/	866	0

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6	0	1	0	7

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0	0	0	0	0
0	1	0	0	1
1	0	0	0	1
3	1	1	0	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Rosecrans	PROJECT #: LOCATION #: CONTROL:	SC2721 23 SIGNAL
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CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	<div>▲ N ◀ W S ▼</div>	E ▶
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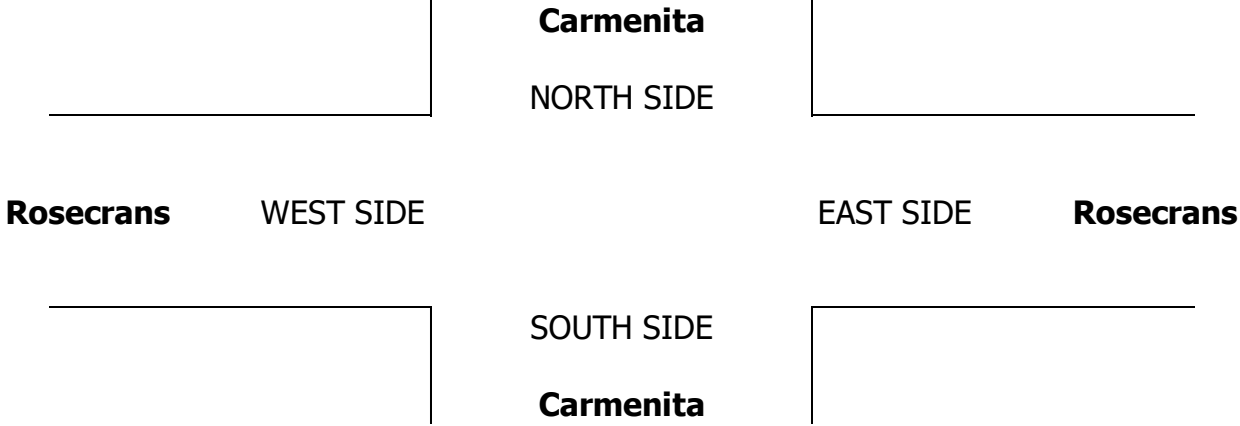
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Rosecrans			Rosecrans			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	8	0	0	21	5	5	4	0	2	2	0	47
	7:15 AM	2	6	5	1	21	6	0	3	3	4	8	1	60
	7:30 AM	0	11	0	4	18	12	5	4	0	2	0	0	56
	7:45 AM	0	14	0	0	23	8	5	5	0	3	3	0	61
	8:00 AM	1	13	3	3	22	9	4	5	1	3	8	4	76
	8:15 AM	3	11	3	4	18	5	3	9	1	1	11	2	71
	8:30 AM	2	15	1	0	18	7	2	3	2	2	8	2	62
	8:45 AM	2	18	2	0	21	9	5	4	0	1	4	0	66
	VOLUMES	10	96	14	12	162	61	29	37	7	18	44	9	499
	APPROACH %	8%	80%	12%	5%	69%	26%	40%	51%	10%	25%	62%	13%	
	APP/DEPART	120	/	134	235	/	187	73	/	63	71	/	115	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	44	8	8	84	35	14	17	4	12	19	5	253
PM	APPROACH %	5%	80%	15%	6%	66%	28%	40%	49%	11%	33%	53%	14%	
	PEAK HR FACTOR	0.809			0.934			0.875			0.600			0.832
	APP/DEPART	55	/	63	127	/	100	35	/	33	36	/	57	0
	04:00 PM	3	27	0	2	8	5	5	10	0	1	7	3	71
	4:15 PM	3	17	1	1	12	7	5	9	0	0	5	0	60
	4:30 PM	0	14	0	3	9	5	3	6	1	2	4	0	47
	4:45 PM	1	16	1	1	9	2	5	3	1	1	7	1	48
	5:00 PM	3	21	1	0	6	2	4	4	0	0	1	1	43
	5:15 PM	1	11	0	3	1	2	6	1	0	0	4	2	31
	5:30 PM	1	10	0	0	5	0	1	7	1	2	2	1	30
	5:45 PM	0	12	0	1	4	3	4	1	0	1	3	0	29
	VOLUMES	12	128	3	11	54	26	33	41	3	7	33	8	359
	APPROACH %	8%	90%	2%	12%	59%	29%	43%	53%	4%	15%	69%	17%	
	APP/DEPART	143	/	169	91	/	64	77	/	55	48	/	71	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	5	62	2	7	25	11	18	14	2	3	16	4	169
	APPROACH %	7%	90%	3%	16%	58%	26%	53%	41%	6%	13%	70%	17%	
	PEAK HR FACTOR	0.690			0.632			0.850			0.639			0.880
	APP/DEPART	69	/	84	43	/	30	34	/	23	23	/	32	0

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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Rosecrans	PROJECT #: LOCATION #: CONTROL:	SC2721 23 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

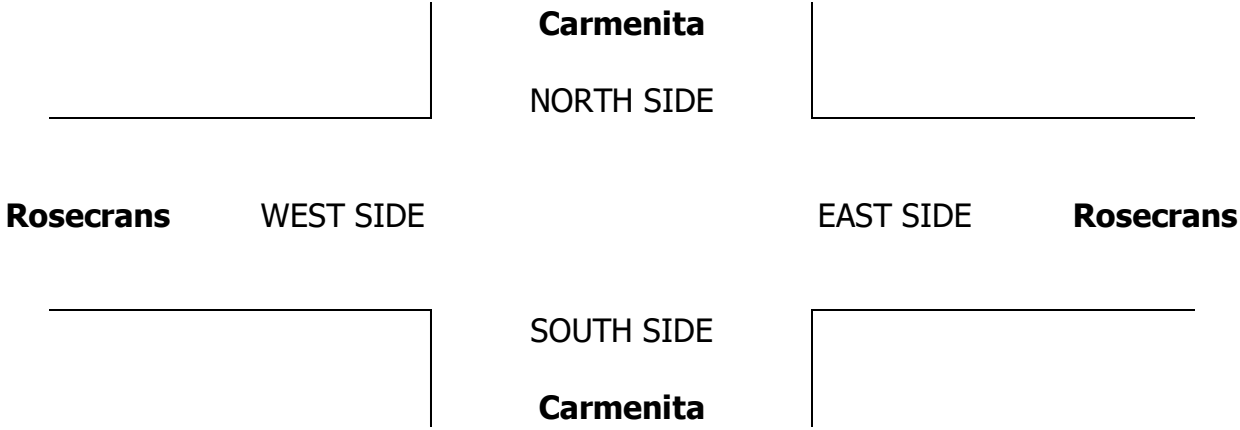
	NORTHBOUND Carmenita			SOUTHBOUND Carmenita			EASTBOUND Rosecrans			WESTBOUND Rosecrans			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL

AM	7:00 AM	0	0	0	0	3	1	0	1	1	1	0	0	7
	7:15 AM	0	1	0	0	1	1	0	0	0	1	0	0	4
	7:30 AM	0	2	1	0	0	0	0	2	0	0	3	1	9
	7:45 AM	1	3	0	0	1	0	0	4	0	0	1	0	10
	8:00 AM	0	2	1	1	2	2	0	1	0	0	0	0	9
	8:15 AM	0	2	1	0	4	1	3	0	0	0	1	0	12
	8:30 AM	0	2	1	1	1	1	1	1	1	3	1	0	13
	8:45 AM	0	4	1	1	3	1	1	2	0	0	0	0	13
	VOLUMES	1	16	5	3	15	7	5	11	2	5	6	1	77
	APPROACH %	5%	73%	23%	12%	60%	28%	28%	61%	11%	42%	50%	8%	
	APP/DEPART	22	/	22	25	/	22	18	/	19	12	/	14	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	1	8	2	1	4	3	0	7	0	1	4	1	32
	APPROACH %	9%	73%	18%	13%	50%	38%	0%	100%	0%	17%	67%	17%	
	PEAK HR FACTOR	0.688			0.400			0.438			0.375			0.800
	APP/DEPART	11	/	9	8	/	5	7	/	10	6	/	8	0
PM	04:00 PM	0	2	0	0	3	2	3	1	0	1	1	0	13
	4:15 PM	0	1	0	0	3	1	0	2	0	0	0	0	7
	4:30 PM	1	3	0	0	3	0	0	0	0	0	0	0	7
	4:45 PM	0	2	0	0	3	1	1	0	0	0	2	1	10
	5:00 PM	0	3	0	0	3	1	1	0	1	0	0	0	9
	5:15 PM	0	3	0	0	4	1	0	0	0	0	0	0	8
	5:30 PM	0	0	0	0	2	0	0	0	0	1	0	0	3
	5:45 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	VOLUMES	1	15	0	0	23	6	5	3	1	2	3	1	60
	APPROACH %	6%	94%	0%	0%	79%	21%	56%	33%	11%	33%	50%	17%	
	APP/DEPART	16	/	21	29	/	26	9	/	3	6	/	10	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	1	11	0	0	13	3	2	0	1	0	2	1	34
	APPROACH %	8%	92%	0%	0%	81%	19%	67%	0%	33%	0%	67%	33%	
	PEAK HR FACTOR	0.750			0.800			0.375			0.250			0.850
	APP/DEPART	12	/	14	16	/	14	3	/	0	3	/	6	0

U-TURNS				
NB	SB	EB	WB	TTL

0	0	0	0	0
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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Rosecrans	PROJECT #: LOCATION #: CONTROL:	SC2721 23 SIGNAL
CLASS 4:  4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div>▲ N  S ▼</div> <div>◀ W E ▶</div>

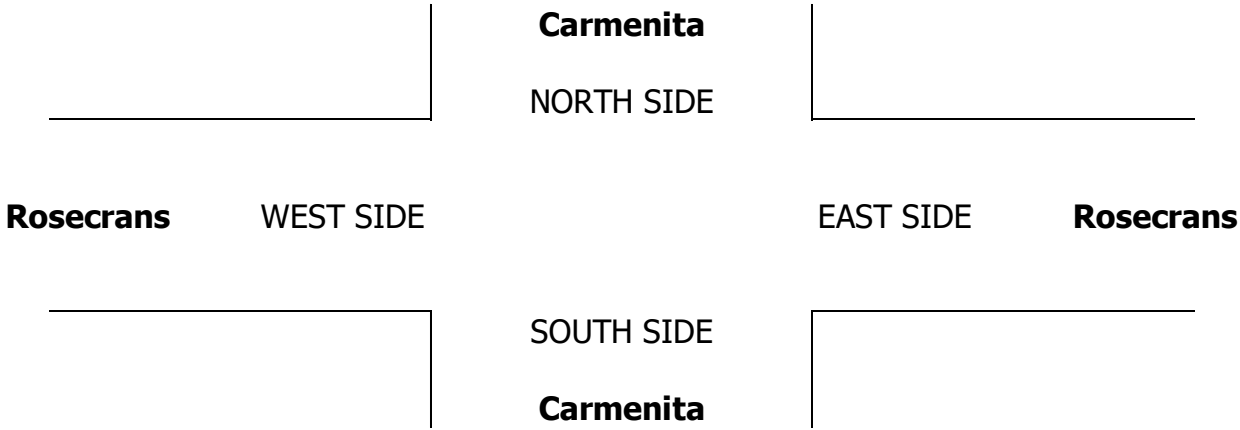
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Rosecrans			Rosecrans			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	5	2	0	12	2	0	5	0	4	5	1	36
	7:15 AM	0	7	5	0	12	0	0	1	0	3	4	0	32
	7:30 AM	1	11	1	0	12	3	0	4	0	3	1	1	37
	7:45 AM	0	10	2	2	6	0	1	2	0	2	5	0	30
	8:00 AM	0	10	1	0	13	2	3	4	0	6	2	0	41
	8:15 AM	0	6	2	0	3	1	1	3	0	3	6	1	26
	8:30 AM	0	8	2	2	11	5	2	3	0	3	2	0	38
	8:45 AM	0	8	4	0	10	3	4	3	1	4	2	1	40
	VOLUMES	1	65	19	4	79	16	11	25	1	28	27	4	280
	APPROACH %	1%	76%	22%	4%	80%	16%	30%	68%	3%	47%	46%	7%	
	APP/DEPART	85	/	80	99	/	108	37	/	48	59	/	44	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	1	38	9	2	43	5	4	11	0	14	12	1	140
PM	APPROACH %	2%	79%	19%	4%	86%	10%	27%	73%	0%	52%	44%	4%	
	PEAK HR FACTOR	0.923			0.833			0.536			0.844			0.854
	APP/DEPART	48	/	43	50	/	57	15	/	22	27	/	18	0
	04:00 PM	0	8	0	1	6	0	1	2	0	1	2	0	21
	4:15 PM	0	15	2	0	12	1	2	2	0	1	0	0	35
	4:30 PM	0	9	1	1	5	1	2	5	1	0	1	1	27
	4:45 PM	0	9	2	0	5	4	0	1	0	3	3	1	28
	5:00 PM	0	6	2	0	6	3	0	0	0	0	0	0	17
	5:15 PM	0	7	0	1	5	1	2	0	1	0	2	2	21
	5:30 PM	0	10	0	2	5	3	0	2	0	0	0	1	23
	5:45 PM	0	6	0	0	4	0	1	0	0	3	3	0	17
	VOLUMES	0	70	7	5	48	13	8	12	2	8	11	5	189
	APPROACH %	0%	91%	9%	8%	73%	20%	36%	55%	9%	33%	46%	21%	
	APP/DEPART	77	/	83	66	/	58	22	/	24	24	/	24	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	31	5	2	21	9	4	6	2	3	6	4	93
	APPROACH %	0%	86%	14%	6%	66%	28%	33%	50%	17%	23%	46%	31%	
	PEAK HR FACTOR	0.818			0.889			0.375			0.464			0.830
	APP/DEPART	36	/	39	32	/	26	12	/	13	13	/	15	0

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0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Rosecrans	PROJECT #: LOCATION #: CONTROL:	SC2721 23 SIGNAL
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CLASS 5:	NOTES:	AM		▲	
RV		PM		N	
		MD	◀ W		E ▶
		OTHER		S	
		OTHER		▼	

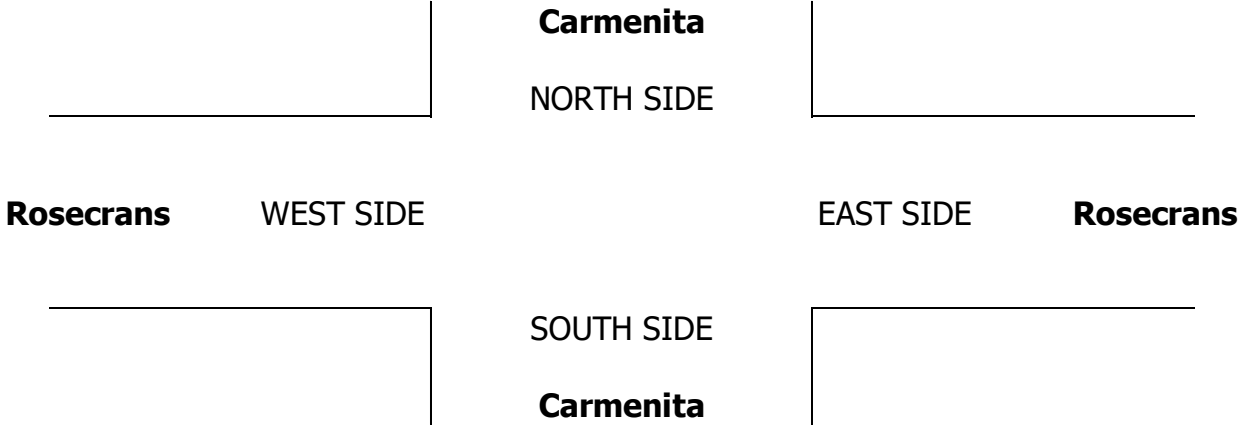
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Rosecrans			Rosecrans			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	1	1	2	1	2	2	0	1	3	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	1
PM	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.000		
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	1
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.000		
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<div>DATE: 4/20/21 TUESDAY</div>	<div>LOCATION: NORTH &amp; SOUTH: EAST &amp; WEST:</div>	<div>Santa Fe Springs Carmenita Rosecrans</div>	<div>PROJECT #: LOCATION #: CONTROL:</div>	<div>SC2721 23 SIGNAL</div>		
<div>CLASS 6:</div>	<div>NOTES:</div>		<div>AM</div>	<div></div>	<div>▲</div>	<div></div>
<div>BUSES</div>			<div>PM</div>		<div>N</div>	
			<div>MD</div>	<div>◀ W</div>		<div>E ▶</div>
			<div>OTHER</div>	<div></div>	<div>S</div>	<div></div>
			<div>OTHER</div>		<div>▼</div>	

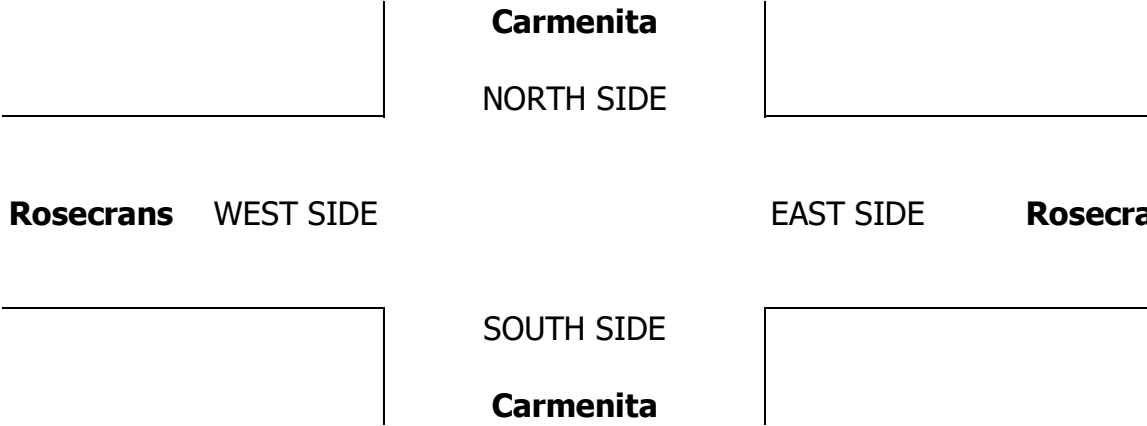
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Rosecrans			Rosecrans			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 3	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	0	0	0	0	4	1	0	1	0	7	
	7:15 AM	0	0	0	0	0	0	2	2	1	0	0	5	
	7:30 AM	1	0	0	0	0	0	1	2	1	0	2	7	
	7:45 AM	0	0	0	0	1	0	0	0	0	4	0	5	
	8:00 AM	1	0	0	0	0	2	0	1	1	0	6	11	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	1	0	0	0	0	0	1	
	8:45 AM	1	1	0	0	0	0	0	1	1	0	1	0	5
	VOLUMES	4	1	0	0	1	3	1	10	6	1	14	0	41
	APPROACH %	80%	20%	0%	0%	25%	75%	6%	59%	35%	7%	93%	0%	
APP/DEPART	5	/	2	4	/	8	17	/	10	15	/	21	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	2	0	0	0	1	2	1	5	4	1	12	0	28	
APPROACH %	100%	0%	0%	0%	33%	67%	10%	50%	40%	8%	92%	0%		
PEAK HR FACTOR	0.500			0.375			0.625			0.542			0.636	
APP/DEPART	2	/	1	3	/	6	10	/	5	13	/	16	0	
PM	04:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	
	4:15 PM	1	0	0	0	0	0	0	1	0	0	2	0	4
	4:30 PM	1	0	0	0	0	0	0	0	1	0	0	0	2
	4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	1	0	1	0	0	0	0	0	1	0	1	1	5
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	1	0	0	0	0	0	0	0	1	0	1	0	3
	VOLUMES	5	0	1	0	0	0	0	2	4	0	4	1	17
	APPROACH %	83%	0%	17%	0%	0%	0%	0%	33%	67%	0%	80%	20%	
	APP/DEPART	6	/	1	0	/	4	6	/	3	5	/	9	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	3	0	1	0	0	0	0	1	2	0	1	1	9
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	33%	67%	0%	50%	50%	
PEAK HR FACTOR	0.500			0.000			0.750			0.250			0.450	
APP/DEPART	4	/	1	0	/	2	3	/	2	2	/	4	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
24  
SIGNAL

NOTES:

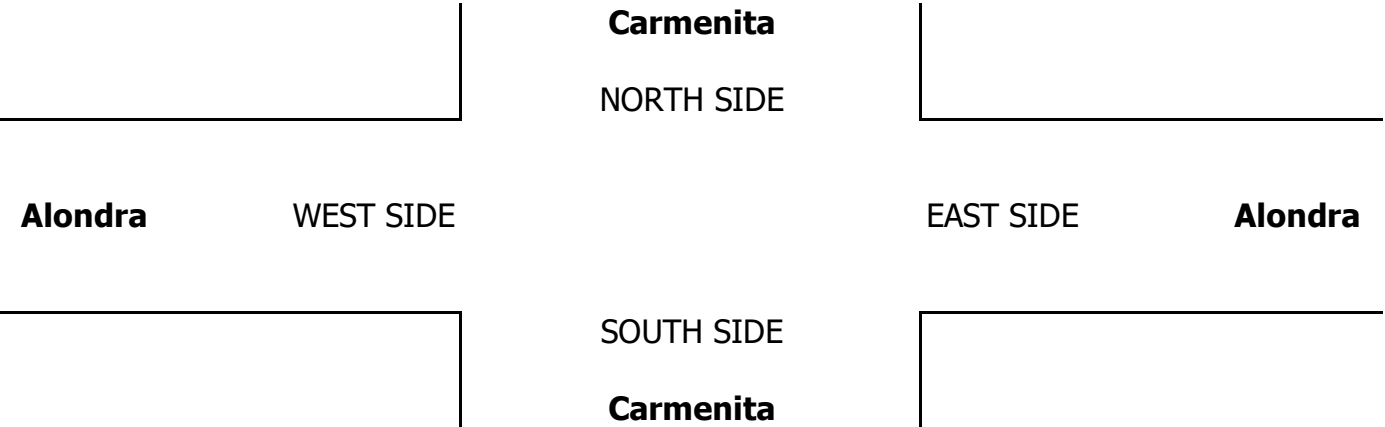
AM  
PM  
MD  
OTHER  
OTHER

▲  
N  
◀ W  
S  
▼

E ▶

☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					
		Carmenita			Carmenita			Alondra			Alondra									
LANES:		NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	
AM	7:00 AM	14	91	18	25	79	40	28	71	5	38	106	32	547	1	0	0	1	2	
	7:15 AM	10	111	14	37	101	40	33	54	7	44	103	24	578	0	0	0	0	0	
	7:30 AM	6	131	16	29	114	44	33	89	5	47	125	31	670	0	0	0	0	0	
	7:45 AM	16	177	27	45	136	69	51	82	10	57	113	42	825	0	1	0	4	5	
	8:00 AM	10	101	13	25	102	50	35	77	8	36	112	33	602	0	1	0	2	3	
	8:15 AM	12	97	15	41	103	55	41	74	11	33	98	38	618	4	0	0	0	4	
	8:30 AM	9	98	23	40	101	56	40	72	11	43	93	30	616	2	1	2	3	8	
	8:45 AM	15	114	34	44	124	55	31	79	12	43	91	27	669	3	0	1	4	8	
	VOLUMES	92	920	160	286	860	409	292	598	69	341	841	257	5,125	10	3	3	14	30	
	APPROACH %	8%	78%	14%	18%	55%	26%	30%	62%	7%	24%	58%	18%							
APP/DEPART	1,172	/	1,469	1,555	/	1,266	959	/	1,055	1,439	/	1,335	0							
BEGIN PEAK HR	7:30 AM																			
VOLUMES	44	506	71	140	455	218	160	322	34	173	448	144	2,715							
APPROACH %	7%	81%	11%	17%	56%	27%	31%	62%	7%	23%	59%	19%								
PEAK HR FACTOR	0.706			0.813			0.902			0.902			0.823							
APP/DEPART	621	/	812	813	/	660	516	/	537	765	/	706	0							
PM	04:00 PM	17	130	17	27	118	50	53	102	20	39	115	63	751	1	1	1	1	4	
	4:15 PM	9	151	29	21	111	45	47	93	11	36	107	47	707	1	0	0	2	3	
	4:30 PM	24	153	22	15	124	38	68	108	7	39	129	81	808	2	0	1	1	4	
	4:45 PM	10	145	23	25	154	46	56	100	13	46	127	45	790	0	1	0	2	3	
	5:00 PM	14	175	30	25	174	61	68	120	28	41	128	70	934	1	3	1	2	7	
	5:15 PM	4	144	35	26	150	59	68	105	7	33	156	47	834	0	1	0	2	3	
	5:30 PM	21	179	29	18	147	46	58	111	11	46	147	53	866	1	0	0	3	4	
	5:45 PM	7	128	20	24	143	45	43	100	10	29	110	43	702	0	2	0	1	3	
	VOLUMES	106	1,205	205	181	1,121	390	461	839	107	309	1,019	449	6,392	6	8	3	14	31	
	APPROACH %	7%	79%	14%	11%	66%	23%	33%	60%	8%	17%	57%	25%							
	APP/DEPART	1,516	/	2,120	1,692	/	1,529	1,407	/	1,231	1,777	/	1,512	0						
	BEGIN PEAK HR	4:45 PM																		
	VOLUMES	49	643	117	94	625	212	250	436	59	166	558	215	3,424						
	APPROACH %	6%	79%	14%	10%	67%	23%	34%	59%	8%	18%	59%	23%							
PEAK HR FACTOR	0.883			0.895			0.862			0.954			0.916							
APP/DEPART	809	/	1,112	931	/	843	745	/	651	939	/	818	0							

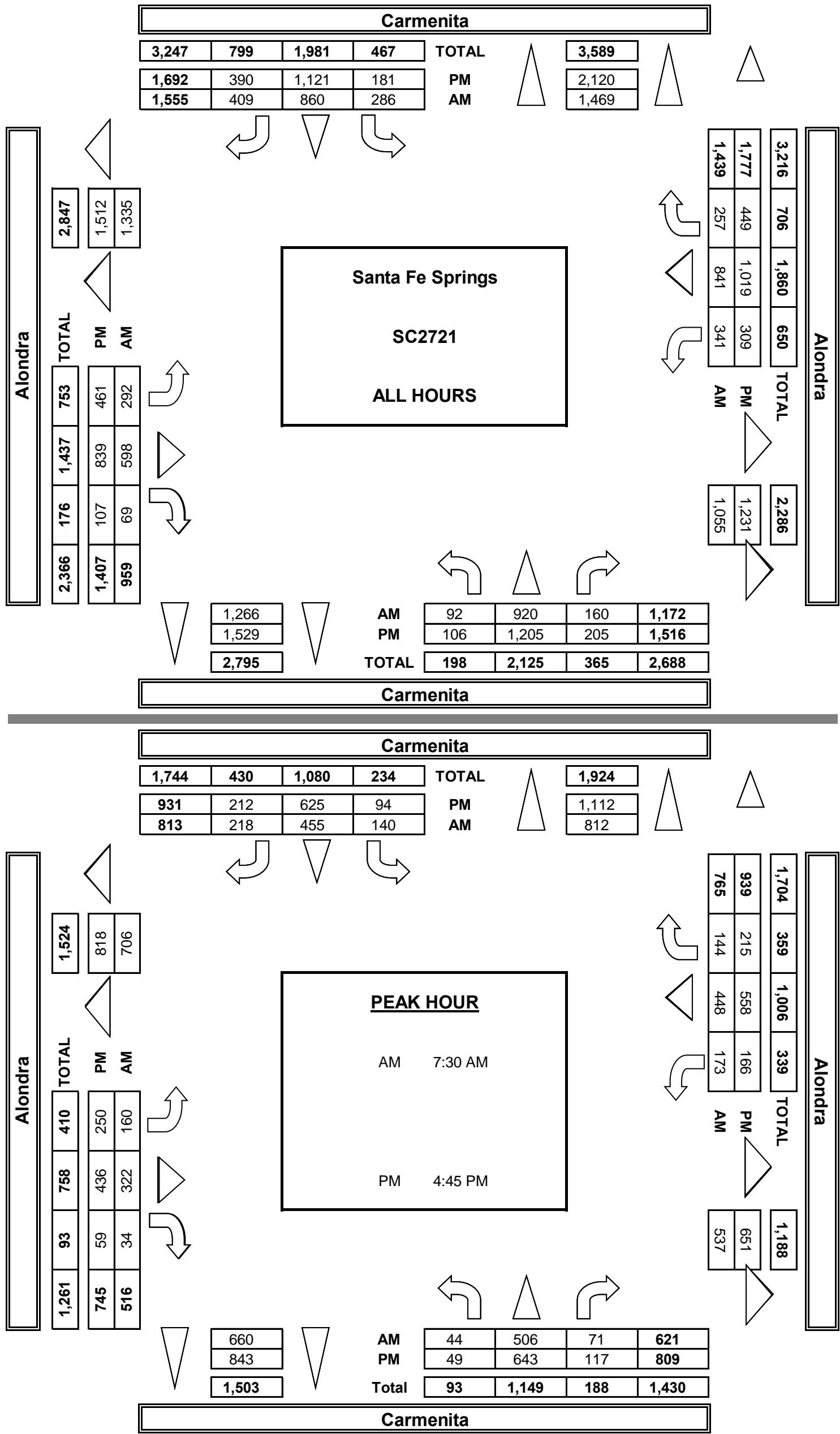


ALL PED AND BIKE					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
0	0	1	1	2	
0	1	0	1	2	
2	2	1	1	6	
0	7	0	3	10	
0	0	0	0	0	
1	3	2	1	7	
0	0	0	1	1	
0	2	3	0	5	
3	15	7	8	33	
0	0	2	0	2	
0	3	1	1	5	
1	1	0	0	2	
2	0	1	0	3	
1	2	2	0	5	
0	1	0	1	2	
2	0	0	0	2	
1	1	1	0	3	
7	8	7	2	24	

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	1	1	2
0	0	0	1	1
2	2	1	1	6
0	6	0	2	8
0	0	0	0	0
1	2	2	1	6
0	0	0	0	0
0	1	3	0	4
3	11	7	6	27
0	0	2	0	2
0	2	1	1	4
1	0	0	0	1
0	0	1	0	1
1	2	2	0	5
0	1	0	1	2
1	0	0	0	1
0	1	1	0	2
3	6	7	2	18

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	0	1	2
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	1	0	0	1
0	4	0	2	6
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
4	2	0	0	6

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

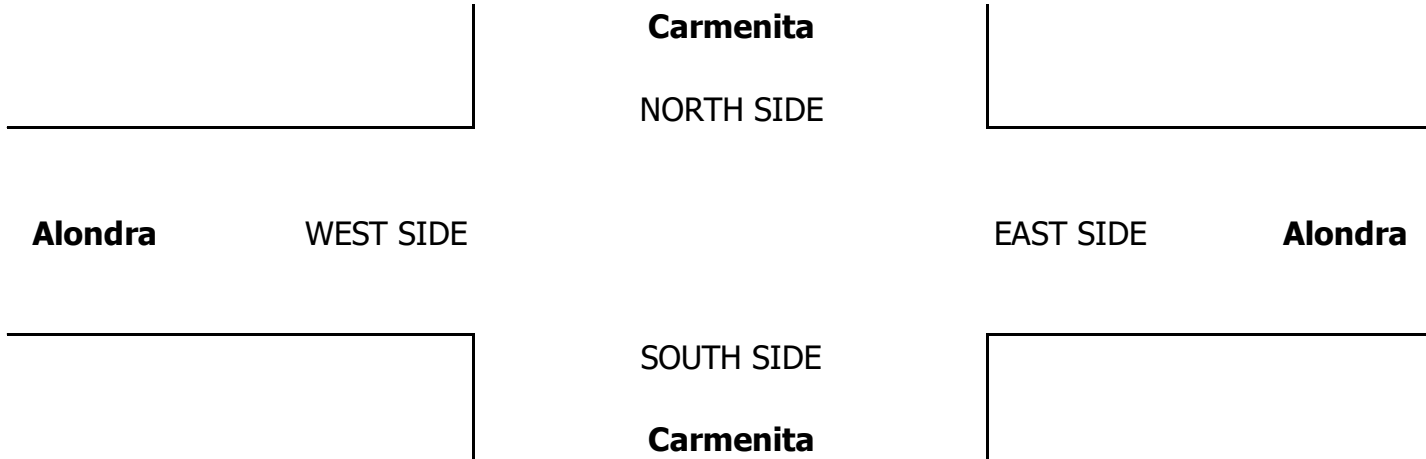
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 24 SIGNAL
-----------------------------	---	--	---------------------------------------	------------------------

PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Alondra			Alondra				NB	SB	EB	WB	TTL
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					

AM	7:00 AM	18	92	18	35	83	57	43	95	5	39	116	39	637					0
	7:15 AM	12	115	17	52	102	56	53	64	8	44	114	32	668					0
	7:30 AM	9	134	16	36	124	60	54	95	5	52	142	44	769					0
	7:45 AM	16	182	30	49	143	95	72	91	11	58	129	53	925					0
	8:00 AM	10	104	15	32	105	73	59	95	9	37	126	37	700					0
	8:15 AM	13	98	17	53	110	78	63	86	13	37	107	46	720					0
	8:30 AM	10	102	24	55	105	78	62	89	11	44	110	31	718					0
	8:45 AM	16	121	34	62	126	69	47	93	15	44	113	37	776					0
	VOLUMES	103	946	171	371	897	564	451	706	76	354	956	317	5,910	0	0	0	0	0
	APPROACH %	8%	78%	14%	20%	49%	31%	37%	57%	6%	22%	59%	19%						
	APP/DEPART	1,220	/	1,714	1,832	/	1,327	1,233	/	1,247	1,626	/	1,623	0					
	BEGIN PEAK HR	7:30 AM																	
	VOLUMES	48	517	78	168	482	305	248	366	38	183	504	179	3,113					
	APPROACH %	7%	80%	12%	18%	50%	32%	38%	56%	6%	21%	58%	21%						
PM	PEAK HR FACTOR		0.706			0.836			0.937			0.907		0.841					
	APP/DEPART	643	/	943	955	/	702	651	/	612	865	/	856	0					
	04:00 PM	20	135	18	46	121	76	77	133	22	40	131	72	888					0
	4:15 PM	13	159	30	32	115	76	60	111	14	38	125	53	823					0
	4:30 PM	25	156	23	21	127	59	85	126	8	40	155	93	915					0
	4:45 PM	10	150	24	36	158	65	71	116	16	48	134	55	880					0
	5:00 PM	14	178	30	37	178	84	83	134	29	42	146	73	1,025					0
	5:15 PM	5	149	35	36	151	75	84	122	7	36	178	55	932					0
	5:30 PM	23	183	29	23	150	68	63	121	13	47	176	56	948					0
	5:45 PM	7	134	20	28	148	54	51	114	11	29	121	48	764					0
	VOLUMES	116	1,242	207	257	1,147	555	572	975	119	318	1,164	503	7,173	0	0	0	0	0
	APPROACH %	7%	79%	13%	13%	59%	28%	34%	59%	7%	16%	59%	25%						
	APP/DEPART	1,565	/	2,317	1,958	/	1,583	1,666	/	1,439	1,984	/	1,835	0					
	BEGIN PEAK HR	4:45 PM																	
	VOLUMES	52	659	118	131	637	291	300	492	65	171	633	238	3,784					
	APPROACH %	6%	80%	14%	12%	60%	28%	35%	57%	8%	16%	61%	23%						
	PEAK HR FACTOR		0.885			0.885			0.875			0.937		0.923					
	APP/DEPART	828	/	1,196	1,058	/	872	856	/	740	1,042	/	976	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 24 SIGNAL
CLASS 1: PASSENGER VEHICLES	NOTES:		AM PM MD OTHER OTHER	▲ N  S ▼  ◀ W E ▶

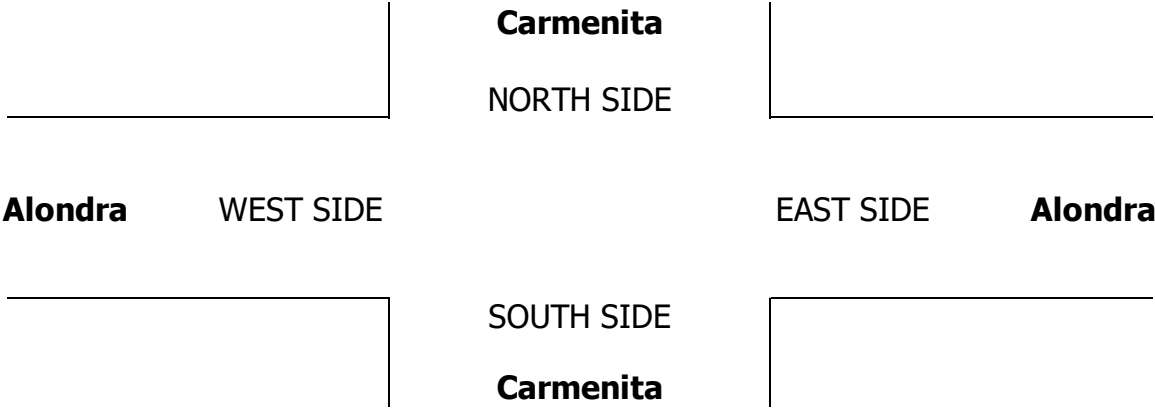
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Alondra			Alondra			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	12	90	18	17	72	27	17	51	5	36	97	27	469
	7:15 AM	7	107	12	26	99	27	17	45	6	44	96	16	502
	7:30 AM	4	128	16	25	101	34	14	84	5	43	108	22	584
	7:45 AM	16	171	24	39	127	51	31	74	9	56	99	31	728
	8:00 AM	10	96	12	18	96	33	19	64	7	35	97	27	514
	8:15 AM	11	95	14	32	95	40	25	62	10	31	89	31	535
	8:30 AM	8	91	21	26	94	37	22	57	11	42	78	28	515
	8:45 AM	13	105	34	31	120	43	16	66	9	41	77	18	573
	VOLUMES	81	883	151	214	804	292	161	503	62	328	741	200	4,420
	APPROACH %	7%	79%	14%	16%	61%	22%	22%	69%	9%	26%	58%	16%	
	APP/DEPART	1,115	/	1,244	1,310	/	1,190	726	/	878	1,269	/	1,108	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	37	490	66	112	419	158	89	284	31	160	393	111	2,361
	APPROACH %	6%	82%	11%	16%	61%	23%	22%	70%	8%	24%	59%	17%	
PM	PEAK HR FACTOR	0.707			0.796			0.886			0.899			0.811
	APP/DEPART	597	/	692	691	/	614	404	/	467	669	/	588	0
	04:00 PM	14	123	16	16	114	34	37	78	18	38	99	53	640
	4:15 PM	6	140	28	13	107	20	38	80	9	33	88	42	604
	4:30 PM	23	148	21	10	118	23	57	95	6	37	109	71	718
	4:45 PM	10	139	22	18	149	31	43	87	11	43	120	38	711
	5:00 PM	14	170	30	17	170	46	57	110	27	40	115	68	864
	5:15 PM	3	138	35	19	148	45	56	93	7	31	140	42	757
	5:30 PM	19	175	29	14	142	31	55	102	10	45	132	51	805
	5:45 PM	7	122	20	19	140	35	35	91	9	29	101	39	647
	VOLUMES	96	1,155	201	126	1,088	265	378	736	97	296	904	404	5,746
	APPROACH %	7%	80%	14%	9%	74%	18%	31%	61%	8%	18%	56%	25%	
	APP/DEPART	1,452	/	1,943	1,479	/	1,474	1,211	/	1,068	1,604	/	1,261	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	44	622	116	63	609	153	211	392	55	151	507	199	3,137
	APPROACH %	6%	79%	15%	8%	73%	18%	32%	60%	8%	17%	59%	23%	
	PEAK HR FACTOR	0.879			0.891			0.848			0.948			0.908
	APP/DEPART	784	/	1,037	830	/	817	658	/	579	865	/	704	0

1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
0	1	0	3	4
0	1	0	2	3
4	0	0	0	4
1	1	2	3	7
3	0	1	4	8
9	3	3	13	28

1	1	1	1	4
1	0	0	2	3
2	0	1	1	4
0	1	0	2	3
1	3	0	1	5
0	1	0	2	3
1	0	0	3	4
0	2	0	1	3
6	8	2	13	29



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 24 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼

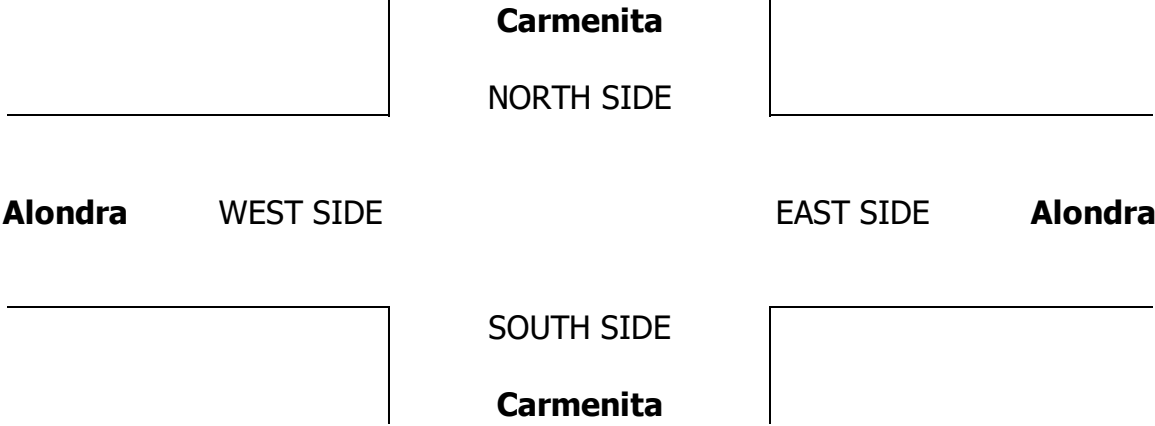
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Alondra			Alondra			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	1	0	3	6	5	5	11	0	2	5	1	39
	7:15 AM	2	2	1	4	2	6	7	5	0	0	2	4	35
	7:30 AM	1	2	0	1	10	3	10	3	0	2	10	3	45
	7:45 AM	0	5	2	5	7	7	12	5	0	1	7	7	58
	8:00 AM	0	5	0	5	6	6	4	4	1	1	8	5	45
	8:15 AM	0	2	0	3	6	4	5	7	0	0	4	4	35
	8:30 AM	1	6	2	7	7	9	7	6	0	1	8	2	56
	8:45 AM	2	7	0	4	4	6	8	8	1	2	3	4	49
	VOLUMES	6	30	5	32	48	46	58	49	2	9	47	30	362
	APPROACH %	15%	73%	12%	25%	38%	37%	53%	45%	2%	10%	55%	35%	
	APP/DEPART	41	/	118	126	/	59	109	/	87	86	/	98	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	1	14	2	14	29	20	31	19	1	3	29	19	183
	APPROACH %	6%	82%	12%	22%	46%	32%	61%	37%	2%	6%	56%	37%	
PM	PEAK HR FACTOR	0.607			0.829			0.750			0.867			0.789
	APP/DEPART	17	/	64	63	/	33	51	/	36	52	/	50	0
	04:00 PM	2	6	1	2	3	3	5	8	0	0	9	5	44
	4:15 PM	1	9	1	2	2	11	2	5	1	3	12	2	51
	4:30 PM	0	5	1	2	6	5	2	5	1	2	7	4	40
	4:45 PM	0	4	1	1	4	5	7	6	0	3	5	1	37
	5:00 PM	0	5	0	2	2	4	5	3	1	1	4	1	28
	5:15 PM	0	4	0	1	2	6	4	4	0	1	6	1	29
	5:30 PM	1	3	0	1	5	3	1	5	0	1	1	0	21
	5:45 PM	0	4	0	3	1	6	4	2	0	0	4	1	25
	VOLUMES	4	40	4	14	25	43	30	38	3	11	48	15	275
	APPROACH %	8%	83%	8%	17%	30%	52%	42%	54%	4%	15%	65%	20%	
	APP/DEPART	48	/	84	82	/	38	71	/	57	74	/	96	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	1	16	1	5	13	18	16	18	1	5	16	3	115
	APPROACH %	6%	89%	6%	14%	36%	50%	44%	50%	3%	20%	64%	12%	
	PEAK HR FACTOR	0.900			0.900			0.692			0.694			0.777
	APP/DEPART	18	/	35	36	/	19	36	/	25	25	/	36	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Carmenita Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 24 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	<div><div>▲ N ◀ W S ▼</div><div>E ▶</div></div>

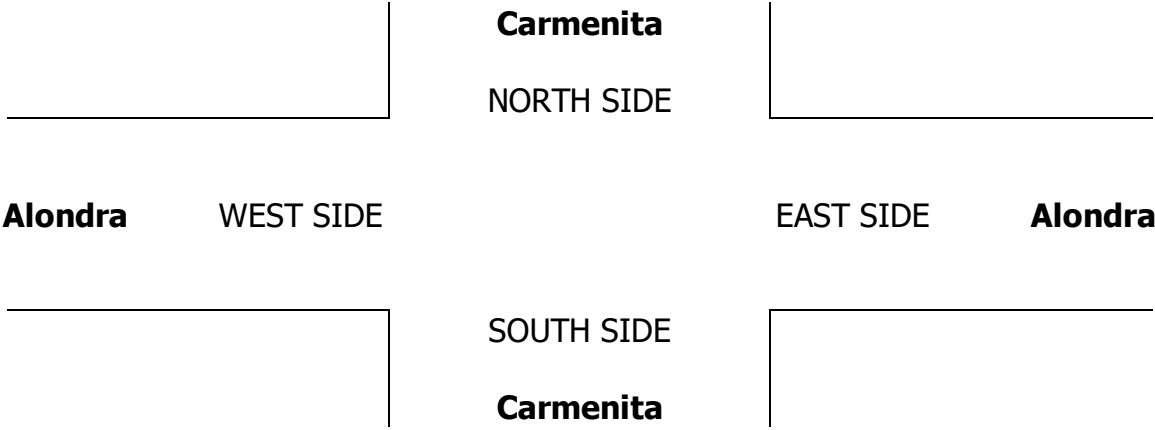
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	1	1	2	0	0	0	0	1	1	6
	7:15 AM	0	1	0	0	0	1	2	1	1	0	0	2	8
	7:30 AM	0	0	0	0	1	0	2	0	0	0	2	0	5
	7:45 AM	0	0	0	0	0	0	1	0	0	0	2	1	4
	8:00 AM	0	0	0	0	0	2	2	2	0	0	4	0	10
	8:15 AM	0	0	0	1	0	1	3	2	0	0	3	0	10
	8:30 AM	0	0	0	3	0	3	4	4	0	0	0	0	14
	8:45 AM	0	1	0	1	0	1	2	0	1	0	2	1	9
	VOLUMES	0	2	0	6	2	10	16	9	2	0	14	5	66
	APPROACH %	0%	100%	0%	33%	11%	56%	59%	33%	7%	0%	74%	26%	
	APP/DEPART	2	/	23	18	/	4	27	/	15	19	/	24	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	0	0	0	1	1	3	8	4	0	0	11	1	29
	APPROACH %	0%	0%	0%	20%	20%	60%	67%	33%	0%	0%	92%	8%	
	PEAK HR FACTOR	0.000			0.625			0.600			0.750			0.725
	APP/DEPART	0	/	9	5	/	1	12	/	5	12	/	14	0
PM	04:00 PM	0	0	0	0	1	2	1	5	1	1	3	3	17
	4:15 PM	1	0	0	1	1	3	2	1	0	0	2	1	12
	4:30 PM	0	0	0	1	0	2	2	1	0	0	3	1	10
	4:45 PM	0	1	0	1	0	4	1	1	0	0	0	2	10
	5:00 PM	0	0	0	1	1	1	0	2	0	0	2	0	7
	5:15 PM	1	0	0	2	0	3	2	1	0	0	1	0	10
	5:30 PM	0	0	0	2	0	4	0	1	0	0	0	1	8
	5:45 PM	0	0	0	1	0	2	2	1	0	0	1	1	8
	VOLUMES	2	1	0	9	3	21	10	13	1	1	12	9	82
	APPROACH %	67%	33%	0%	27%	9%	64%	42%	54%	4%	5%	55%	41%	
	APP/DEPART	3	/	20	33	/	5	24	/	22	22	/	35	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	1	1	0	6	1	12	3	5	0	0	3	3	35
	APPROACH %	50%	50%	0%	32%	5%	63%	38%	63%	0%	0%	50%	50%	
	PEAK HR FACTOR	0.500			0.792			0.667			0.750			0.875
	APP/DEPART	2	/	7	19	/	1	8	/	11	6	/	16	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
24  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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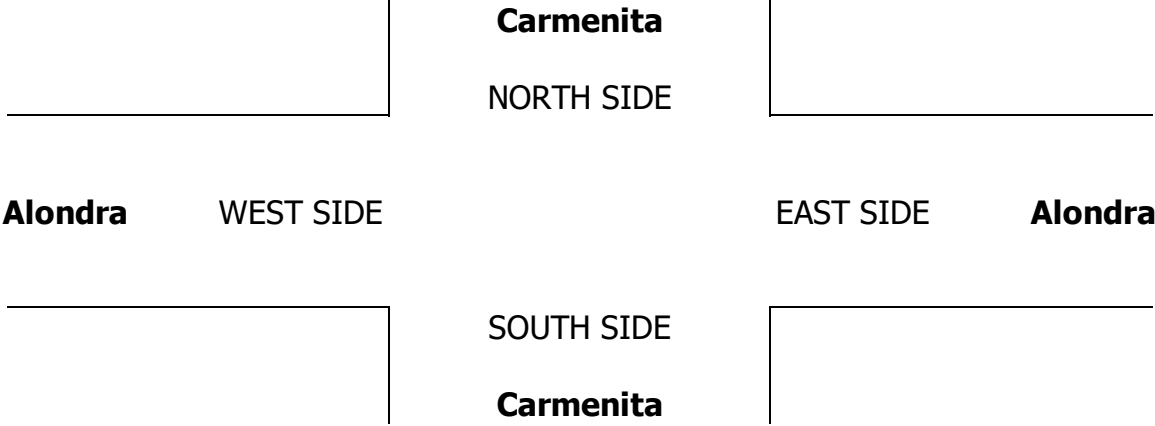
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	0	0	3	0	6	6	9	0	0	3	2	31
	7:15 AM	0	1	1	6	0	6	7	3	0	0	5	2	31
	7:30 AM	1	1	0	3	2	7	7	2	0	2	5	5	35
	7:45 AM	0	1	1	0	1	11	7	3	0	0	5	3	32
	8:00 AM	0	0	1	2	0	9	10	7	0	0	3	0	32
	8:15 AM	0	0	1	4	2	10	8	3	1	2	2	3	36
	8:30 AM	0	0	0	4	0	7	7	5	0	0	6	0	29
	8:45 AM	0	1	0	7	0	5	5	5	0	0	9	3	35
	VOLUMES	3	4	4	29	5	61	57	37	1	4	38	18	261
	APPROACH %	27%	36%	36%	31%	5%	64%	60%	39%	1%	7%	63%	30%	
	APP/DEPART	11	/	79	95	/	10	95	/	70	60	/	102	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	1	2	3	9	5	37	32	15	1	4	15	11	135
	APPROACH %	17%	33%	50%	18%	10%	73%	67%	31%	2%	13%	50%	37%	
PM	PEAK HR FACTOR	0.750			0.797			0.706			0.625			0.938
	APP/DEPART	6	/	45	51	/	10	48	/	27	30	/	53	0
	4:00 PM	1	1	0	9	0	11	10	11	0	0	4	1	48
	4:15 PM	1	1	0	4	1	11	5	7	1	0	5	2	38
	4:30 PM	0	0	0	2	0	8	7	7	0	0	9	4	37
	4:45 PM	0	1	0	4	1	6	5	6	1	0	2	3	29
	5:00 PM	0	0	0	5	1	10	6	5	0	0	7	1	35
	5:15 PM	0	1	0	3	0	5	6	7	0	1	9	3	35
	5:30 PM	0	1	0	1	0	8	2	3	1	0	14	1	31
	5:45 PM	0	2	0	0	2	2	2	6	0	0	4	1	19
	VOLUMES	2	7	0	28	5	61	43	52	3	1	54	16	272
	APPROACH %	22%	78%	0%	30%	5%	65%	44%	53%	3%	1%	76%	23%	
	APP/DEPART	9	/	66	94	/	9	98	/	80	71	/	117	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	0	3	0	13	2	29	19	21	2	1	32	8	130
	APPROACH %	0%	100%	0%	30%	5%	66%	45%	50%	5%	2%	78%	20%	
	PEAK HR FACTOR	0.750			0.688			0.808			0.683			0.929
	APP/DEPART	3	/	30	44	/	5	42	/	34	41	/	61	0

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0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
24  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
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OTHER  
OTHER

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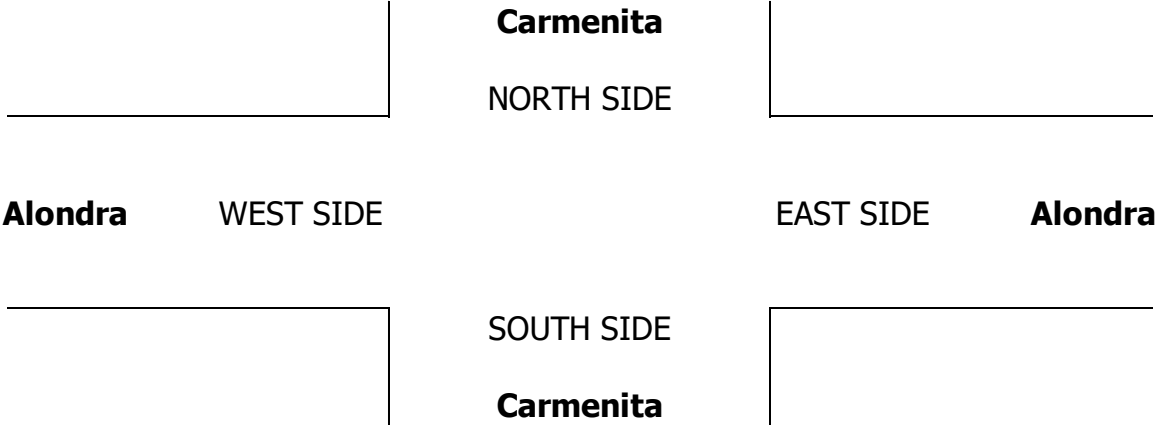
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Carmenita			Carmenita			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	2	1	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	1	0	2
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	1	/	1	0	/	0	0	/	0	1	/	1
	BEGIN PEAK HR	4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Carmenita  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
24  
SIGNAL

CLASS 6:

NOTES:

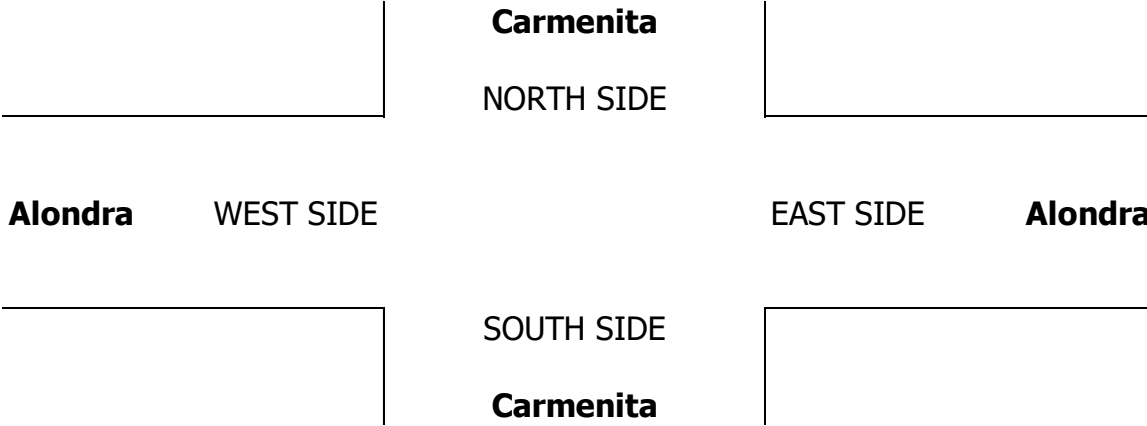
AM  
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BUSES

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Carmenita			Carmenita			Alondra			Alondra				NB	SB	EB	WB	TTL
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL					
AM	7:00 AM	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0
	7:15 AM	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	7:45 AM	0	0	0	1	1	0	0	1	0	0	0	3	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	8:15 AM	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:30 AM	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
	8:45 AM	0	0	0	1	0	0	0	1	0	0	1	3	0	0	0	0	0
	VOLUMES	2	1	0	5	1	0	0	2	0	1	4	16					
	APPROACH %	67%	33%	0%	83%	17%	0%	0%	100%	0%	20%	80%						
PM	APP/DEPART	3	/	5	6	/	3	2	/	5	5	/	3	0				
	BEGIN PEAK HR	7:30 AM																
	VOLUMES	1	0	0	2	1	0	0	1	0	0	2	7					
	APPROACH %	100%	0%	0%	67%	33%	0%	0%	100%	0%	0%	100%						
	PEAK HR FACTOR	0.250			0.375			0.250			0.500			0.583				
	APP/DEPART	1	/	2	3	/	2	1	/	2	2	/	1	0				
	04:00 PM	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0
	4:15 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:30 PM	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
	4:45 PM	0	0	0	1	0	0	0	1	0	0	1	3	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					
	5:15 PM	0	1	0	1	0	0	0	0	0	0	1	3	0	0	0	0	0
	5:30 PM	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	1	0	0	1	3	0	0	0	0	0
	VOLUMES	2	1	0	4	0	0	0	3	0	0	5	15					
	APPROACH %	67%	33%	0%	100%	0%	0%	0%	100%	0%	0%	100%						
	APP/DEPART	3	/	6	4	/	3	3	/	4	5	/	2	0				
	BEGIN PEAK HR	4:45 PM																
	VOLUMES	1	1	0	2	0	0	0	1	0	0	2	7					
	APPROACH %	50%	50%	0%	100%	0%	0%	0%	100%	0%	0%	100%						
	PEAK HR FACTOR	0.500			0.500			0.250			0.500			0.583				
	APP/DEPART	2	/	3	2	/	1	1	/	2	2	/	1	0				



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

NOTES:

AM  
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OTHER

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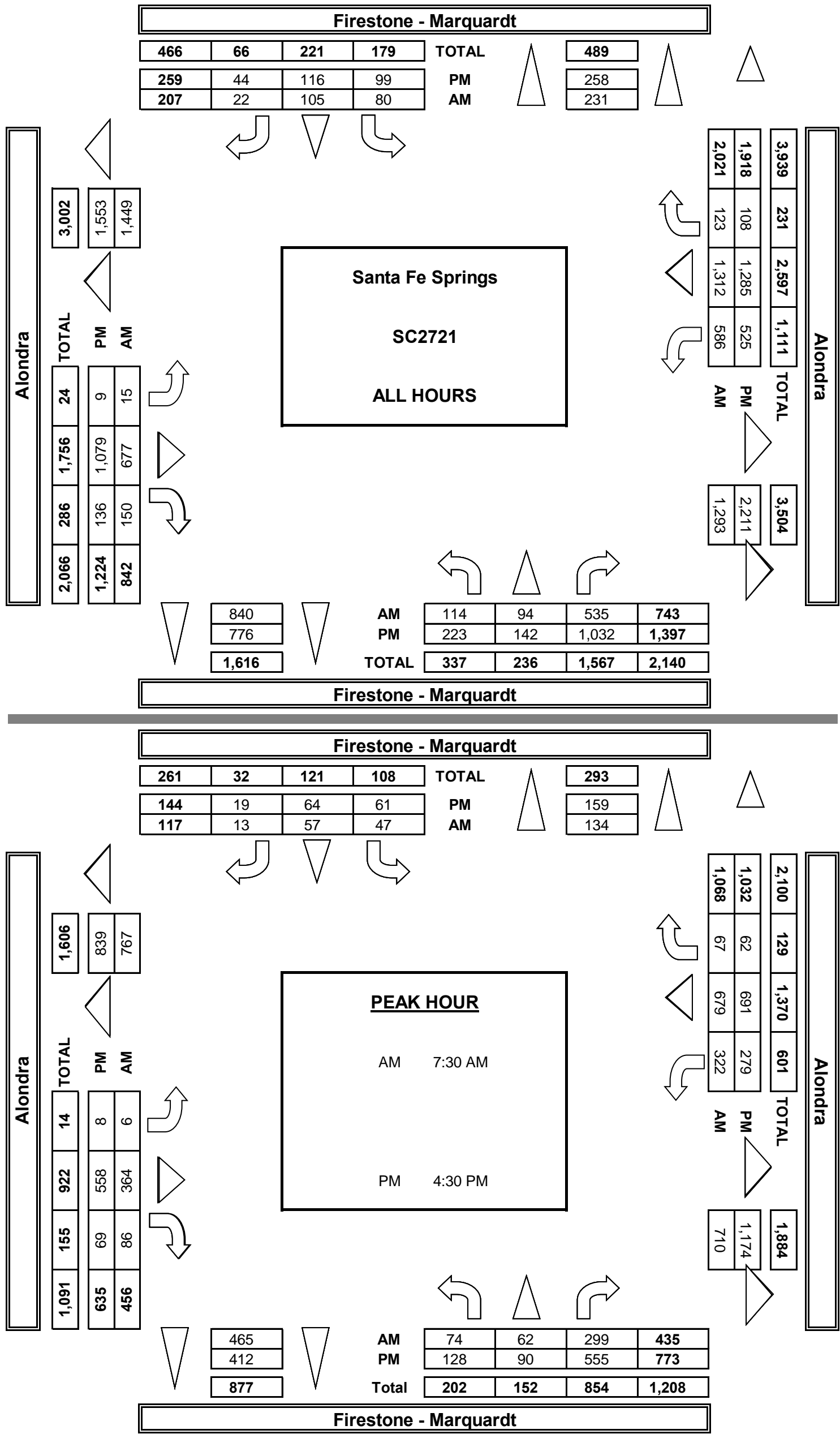
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Firestone - Marquardt			Firestone - Marquardt			Alondra			Alondra				NB	SB	EB	WB	TTL
LANES:		NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL	0	0	0	0	
AM	7:00 AM	15	9	47	6	14	2	3	65	10	49	159	21	400	0	0	0	0	0
	7:15 AM	8	12	64	9	10	1	2	76	16	85	170	16	469	0	0	0	0	0
	7:30 AM	23	12	66	15	14	5	1	94	16	78	179	14	517	0	0	0	0	0
	7:45 AM	22	16	80	9	19	5	0	109	29	97	192	16	594	0	0	0	0	0
	8:00 AM	13	16	74	11	12	2	1	84	20	76	158	21	488	0	0	1	0	1
	8:15 AM	16	18	79	12	12	1	4	77	21	71	150	16	477	0	0	0	0	0
	8:30 AM	10	5	71	8	14	2	2	81	20	80	164	12	469	0	0	0	0	0
	8:45 AM	7	6	54	10	10	4	2	91	18	50	140	7	399	0	0	0	1	1
	VOLUMES	114	94	535	80	105	22	15	677	150	586	1,312	123	3,813	0	0	1	1	2
	APPROACH %	15%	13%	72%	39%	51%	11%	2%	80%	18%	29%	65%	6%						
APP/DEPART	743	/	231	207	/	840	842	/	1,293	2,021	/	1,449	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	74	62	299	47	57	13	6	364	86	322	679	67	2,076						
APPROACH %	17%	14%	69%	40%	49%	11%	1%	80%	19%	30%	64%	6%							
PEAK HR FACTOR	0.922			0.860			0.826			0.875			0.874						
APP/DEPART	435	/	134	117	/	465	456	/	710	1,068	/	767	0						
PM	04:00 PM	28	14	103	9	13	7	0	109	16	61	161	17	538	0	0	0	0	0
	4:15 PM	22	12	134	9	14	10	0	125	16	52	130	7	531	0	0	0	0	0
	4:30 PM	30	22	141	23	12	8	4	138	12	77	188	21	676	0	0	1	0	1
	4:45 PM	25	15	127	13	15	3	0	128	16	67	147	9	565	0	0	0	0	0
	5:00 PM	45	26	136	16	19	7	3	145	22	66	183	14	682	0	0	0	0	0
	5:15 PM	28	27	151	9	18	1	1	147	19	69	173	18	661	0	0	0	0	0
	5:30 PM	25	13	114	12	11	7	0	148	22	79	187	15	633	0	0	0	0	0
	5:45 PM	20	13	126	8	14	1	1	139	13	54	116	7	512	0	0	0	1	1
	VOLUMES	223	142	1,032	99	116	44	9	1,079	136	525	1,285	108	4,798	0	0	1	1	2
	APPROACH %	16%	10%	74%	38%	45%	17%	1%	88%	11%	27%	67%	6%						
	APP/DEPART	1,397	/	258	259	/	776	1,224	/	2,211	1,918	/	1,553	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	128	90	555	61	64	19	8	558	69	279	691	62	2,584					
	APPROACH %	17%	12%	72%	42%	44%	13%	1%	88%	11%	27%	67%	6%						
PEAK HR FACTOR	0.934			0.837			0.934			0.902			0.947						
APP/DEPART	773	/	159	144	/	412	635	/	1,174	1,032	/	839	0						



		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:15 AM	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	1	0	0	1	2	0	0	0	0	0	1	0	0	1	2
TOTAL		2	3	0	1	6	1	1	0	0	2	1	2	0	1	4
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	1	2	0	0	0	1	1	0	1	0	0	1
	4:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	4:45 PM	1	2	0	0	3	0	1	0	0	1	1	1	0	0	2
	5:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL		3	4	0	1	8	0	2	0	1	3	3	2	0	0	5

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

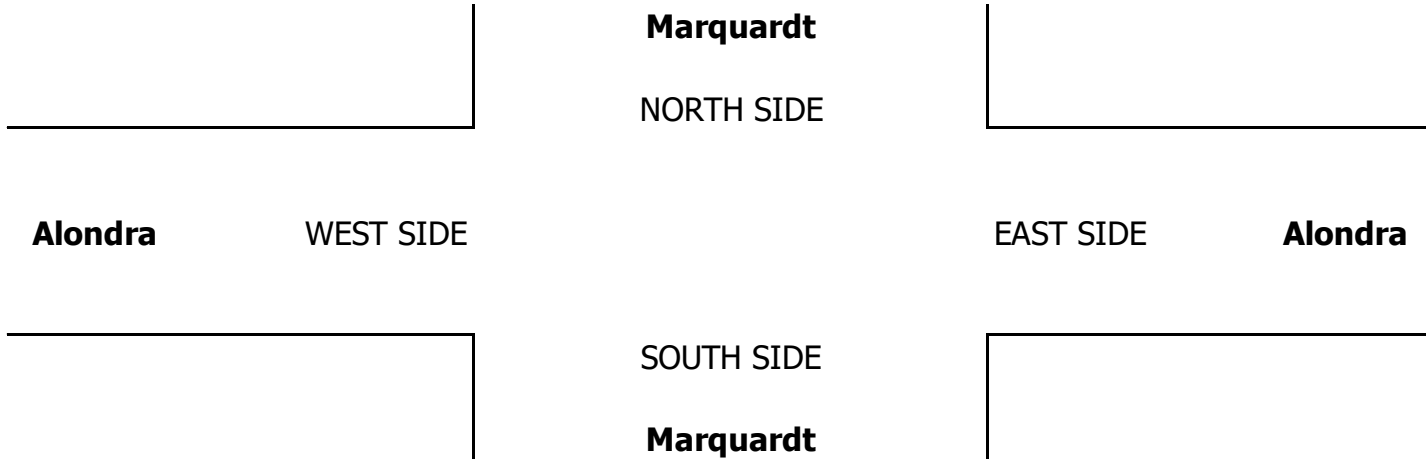
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Marquardt Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 25 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Marquardt			Marquardt			Alondra			Alondra				NB	SB	EB	WB	TTL
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL					

AM	7:00 AM	18	9	48	6	14	3	4	87	10	52	173	21	443					0
	7:15 AM	13	13	67	11	11	1	3	93	18	88	181	19	517					0
	7:30 AM	30	12	70	15	14	8	2	105	18	81	204	14	572					0
	7:45 AM	24	16	81	10	20	6	0	127	30	98	211	18	639					0
	8:00 AM	14	17	77	11	12	3	1	100	28	76	173	24	534					0
	8:15 AM	16	19	85	12	13	1	5	91	22	75	165	16	517					0
	8:30 AM	11	5	76	10	17	2	2	99	25	83	181	12	521					0
	8:45 AM	8	7	55	13	12	6	3	109	25	52	161	8	456					0
	VOLUMES	133	98	556	87	112	29	18	809	175	604	1,447	132	4,197	0	0	0	0	0
	APPROACH %	17%	12%	71%	38%	49%	13%	2%	81%	17%	28%	66%	6%						
	APP/DEPART	786	/	247	228	/	890	1,002	/	1,452	2,182	/	1,609	0					
	BEGIN PEAK HR	7:30 AM																	
	VOLUMES	84	64	312	48	59	17	8	422	97	329	752	72	2,261					
	APPROACH %	18%	14%	68%	39%	48%	14%	1%	80%	18%	29%	65%	6%						
	PEAK HR FACTOR	0.952			0.831			0.840			0.882			0.885					
PM	APP/DEPART	459	/	143	123	/	485	526	/	781	1,153	/	853	0					
	04:00 PM	32	18	109	10	13	8	0	139	19	61	188	22	616					0
	4:15 PM	26	13	137	9	14	14	0	157	25	55	148	8	604					0
	4:30 PM	40	22	143	27	13	8	5	153	15	78	211	26	738					0
	4:45 PM	29	16	130	16	18	3	0	154	19	71	158	10	622					0
	5:00 PM	48	28	139	22	20	9	3	163	27	66	193	19	735					0
	5:15 PM	29	28	152	9	21	1	1	168	25	70	193	23	718					0
	5:30 PM	29	13	117	12	11	7	0	157	25	80	209	15	673					0
	5:45 PM	22	13	129	8	15	1	1	157	16	55	131	8	553					0
	VOLUMES	255	149	1,055	111	124	50	10	1,246	169	535	1,428	130	5,258	0	0	0	0	0
	APPROACH %	17%	10%	72%	39%	43%	18%	1%	87%	12%	26%	68%	6%						
	APP/DEPART	1,458	/	288	285	/	827	1,424	/	2,411	2,092	/	1,732	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	146	93	563	73	71	21	9	637	86	285	753	78	2,812					
	APPROACH %	18%	12%	70%	44%	43%	13%	1%	87%	12%	26%	68%	7%						
	PEAK HR FACTOR	0.934			0.814			0.944			0.888			0.953					
	APP/DEPART	802	/	179	165	/	441	731	/	1,272	1,115	/	920	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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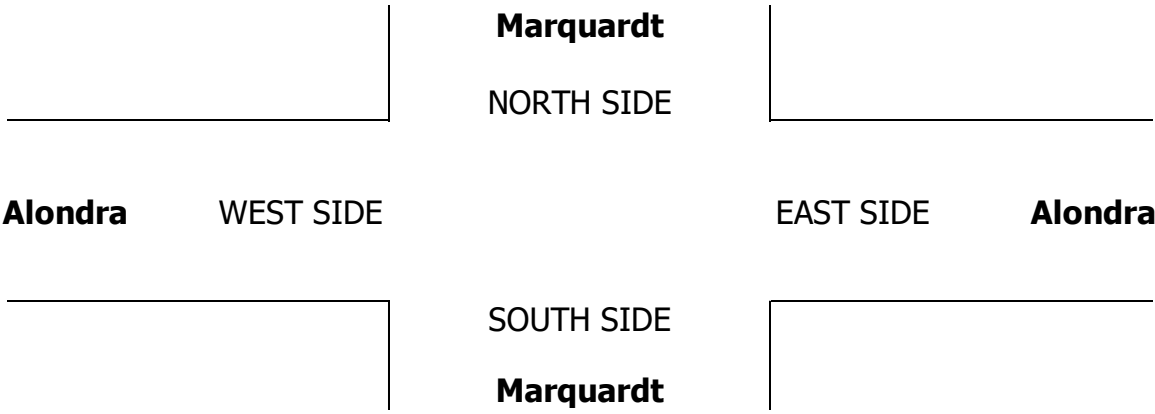
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marquardt			Marquardt			Alondra			Alondra			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	13	9	45	6	14	1	2	48	10	46	145	21	360
	7:15 AM	4	10	61	8	9	1	1	62	12	82	160	13	423
	7:30 AM	18	12	61	15	14	2	0	82	15	72	158	14	463
	7:45 AM	19	16	78	8	17	4	0	94	27	96	171	15	545
	8:00 AM	11	14	70	11	12	1	1	70	15	76	144	19	444
	8:15 AM	16	16	74	12	11	1	3	64	20	67	138	16	438
	8:30 AM	9	5	64	7	9	2	2	64	15	77	148	12	414
	8:45 AM	5	5	53	8	6	3	1	74	12	46	125	5	343
	VOLUMES	95	87	506	75	92	15	10	558	126	562	1,189	115	3,430
	APPROACH %	14%	13%	74%	41%	51%	8%	1%	80%	18%	30%	64%	6%	
	APP/DEPART	688	/	211	182	/	779	694	/	1,140	1,866	/	1,300	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	64	58	283	46	54	8	3	310	77	311	611	64	1,890
	APPROACH %	16%	14%	70%	43%	50%	7%	1%	79%	20%	32%	62%	6%	
	PEAK HR FACTOR	0.896			0.871			0.808			0.874			0.867
	APP/DEPART	405	/	125	108	/	442	391	/	639	986	/	684	0
PM	04:00 PM	22	10	97	8	13	6	0	85	14	61	138	12	466
	4:15 PM	17	11	131	9	14	7	0	103	11	49	115	6	473
	4:30 PM	19	22	138	20	11	8	3	125	10	76	170	17	619
	4:45 PM	21	14	123	11	12	3	0	109	13	62	138	8	514
	5:00 PM	42	24	133	12	17	6	3	131	18	66	174	11	637
	5:15 PM	27	26	149	9	16	1	1	131	16	67	157	14	614
	5:30 PM	23	13	112	12	11	7	0	141	20	78	174	15	606
	5:45 PM	18	13	123	8	13	1	1	126	11	53	104	6	477
	VOLUMES	189	133	1,006	89	107	39	8	951	113	512	1,170	89	4,406
	APPROACH %	14%	10%	76%	38%	46%	17%	1%	89%	11%	29%	66%	5%	
	APP/DEPART	1,328	/	229	235	/	731	1,072	/	2,047	1,771	/	1,399	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	109	86	543	52	56	18	6	496	57	271	639	50	2,384
	APPROACH %	15%	12%	74%	41%	44%	14%	1%	89%	10%	28%	67%	5%	
	PEAK HR FACTOR	0.913			0.808			0.921			0.913			0.936
	APP/DEPART	738	/	142	126	/	384	560	/	1,091	960	/	767	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
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0	0	0	1	1
0	0	1	1	2

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	1	1	2





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

CLASS 2:  
2-AXLE  
WORK  
VEHICLES/  
TRUCKS

NOTES:

AM  
PM  
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OTHER  
OTHER

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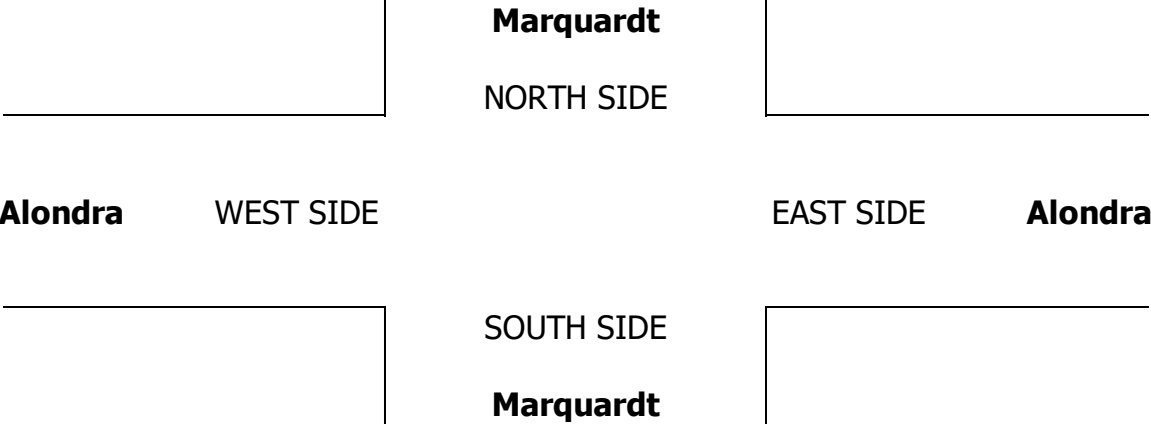
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marquardt			Marquardt			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	2	0	0	0	1	7	0	1	8	0	20
	7:15 AM	2	2	1	0	1	0	1	6	4	2	6	2	27
	7:30 AM	2	0	3	0	0	2	1	8	0	6	9	0	31
	7:45 AM	3	0	2	1	2	1	0	7	2	1	14	0	33
	8:00 AM	2	2	3	0	0	1	0	7	1	0	6	1	23
	8:15 AM	0	2	3	0	1	0	0	7	1	3	5	0	22
	8:30 AM	1	0	5	0	5	0	0	8	2	2	9	0	32
	8:45 AM	2	1	1	1	4	0	1	10	3	4	5	2	34
	VOLUMES	13	7	20	2	13	4	4	60	13	19	62	5	222
	APPROACH %	33%	18%	50%	11%	68%	21%	5%	78%	17%	22%	72%	6%	
	APP/DEPART	40	/	16	19	/	45	77	/	82	86	/	79	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	7	4	11	1	3	4	1	29	4	10	34	1	109
	APPROACH %	32%	18%	50%	13%	38%	50%	3%	85%	12%	22%	76%	2%	
	PEAK HR FACTOR	0.786			0.500			0.944			0.750			0.826
	APP/DEPART	22	/	6	8	/	17	34	/	41	45	/	45	0
	04:00 PM	4	3	4	1	0	1	0	8	1	0	9	3	34
	4:15 PM	4	1	2	0	0	1	0	7	1	2	6	0	24
	4:30 PM	6	0	3	1	1	0	0	7	1	1	7	2	29
	4:45 PM	2	1	3	1	2	0	0	6	2	4	3	0	24
	5:00 PM	2	1	2	1	2	0	0	5	2	0	5	1	21
	5:15 PM	0	1	2	0	1	0	0	5	0	2	7	2	20
	5:30 PM	0	0	1	0	0	0	0	3	1	1	3	0	9
	5:45 PM	1	0	2	0	1	0	0	2	1	1	5	1	14
	VOLUMES	19	7	19	4	7	2	0	43	9	11	45	9	175
	APPROACH %	42%	16%	42%	31%	54%	15%	0%	83%	17%	17%	69%	14%	
	APP/DEPART	45	/	16	13	/	27	52	/	66	65	/	66	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	10	3	10	3	6	0	0	23	5	7	22	5	94
	APPROACH %	43%	13%	43%	33%	67%	0%	0%	82%	18%	21%	65%	15%	
	PEAK HR FACTOR	0.639			0.750			0.875			0.773			0.810
	APP/DEPART	23	/	8	9	/	18	28	/	36	34	/	32	0

0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
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OTHER  
OTHER

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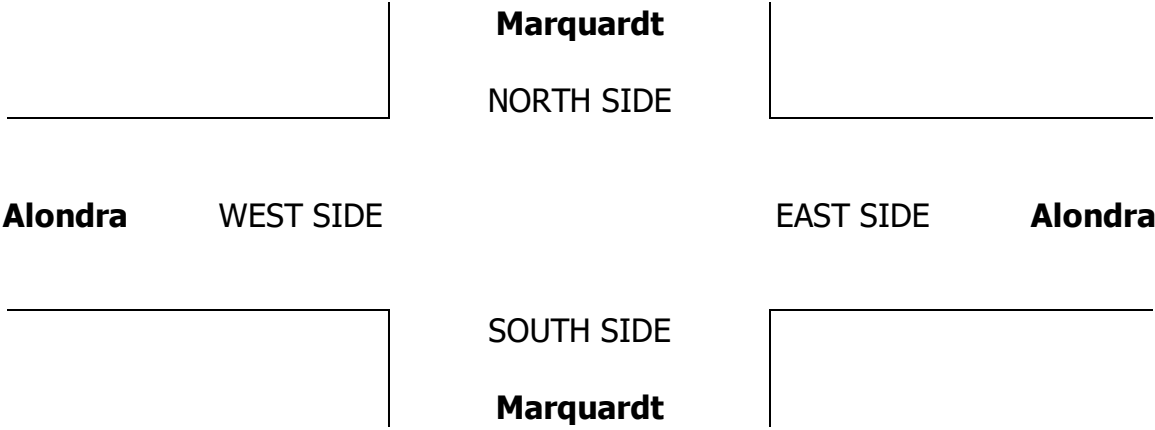
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marquardt			Marquardt			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	1	0	1	0	2	1	0	5
	7:15 AM	0	0	2	0	0	0	0	1	0	0	0	0	3
	7:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:00 AM	0	0	1	0	0	0	0	2	1	0	3	0	7
	8:15 AM	0	0	0	0	0	0	1	1	0	0	2	0	4
	8:30 AM	0	0	2	0	0	0	0	4	2	0	0	0	8
	8:45 AM	0	0	0	0	0	0	0	0	1	0	2	0	3
	VOLUMES	0	0	5	0	0	1	1	11	4	2	13	0	37
	APPROACH %	0%	0%	100%	0%	0%	100%	6%	69%	25%	13%	87%	0%	
	APP/DEPART	5	/	1	1	/	6	16	/	16	15	/	14	0
	BEGIN PEAK HR	7:30 AM												
PM	VOLUMES	0	0	1	0	0	0	1	5	1	0	10	0	18
	APPROACH %	0%	0%	100%	0%	0%	0%	14%	71%	14%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.583			0.833			0.643
	APP/DEPART	1	/	1	0	/	1	7	/	6	10	/	10	0
	04:00 PM	2	0	0	0	0	0	0	6	0	0	5	1	14
	4:15 PM	0	0	0	0	0	1	0	1	0	0	2	1	5
	4:30 PM	3	0	0	1	0	0	1	1	0	0	2	0	8
	4:45 PM	1	0	0	0	0	0	0	2	0	0	2	1	6
	5:00 PM	0	1	0	1	0	0	0	3	0	0	0	0	5
	5:15 PM	1	0	0	0	0	0	0	3	0	0	2	0	6
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	1	0	0	0	0	0	0	4	0	0	1	0	6
	VOLUMES	8	1	0	2	0	1	1	21	0	0	14	3	51
	APPROACH %	89%	11%	0%	67%	0%	33%	5%	95%	0%	0%	82%	18%	
	APP/DEPART	9	/	5	3	/	0	22	/	23	17	/	23	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	5	1	0	2	0	0	1	9	0	0	6	1	25
	APPROACH %	83%	17%	0%	100%	0%	0%	10%	90%	0%	0%	86%	14%	
	PEAK HR FACTOR	0.500			0.500			0.833			0.583			0.781
	APP/DEPART	6	/	3	2	/	0	10	/	11	7	/	11	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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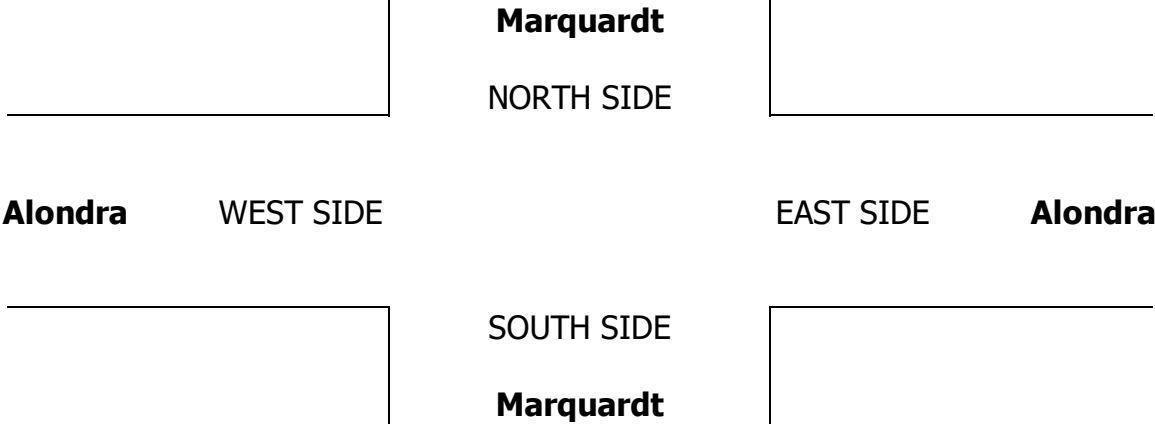
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marquardt			Marquardt			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	0	0	0	0	0	8	0	0	4	0	13
	7:15 AM	2	0	0	1	0	0	6	0	1	4	1	15
	7:30 AM	3	0	0	0	0	1	3	1	0	8	0	16
	7:45 AM	0	0	0	0	0	0	6	0	0	5	1	12
	8:00 AM	0	0	0	0	0	0	5	3	0	4	1	13
	8:15 AM	0	0	2	0	0	0	4	0	1	5	0	12
	8:30 AM	0	0	0	1	0	0	5	1	1	5	0	13
	8:45 AM	0	0	0	1	0	1	6	2	0	8	0	18
	VOLUMES	6	0	2	3	0	2	43	7	3	43	3	112
	APPROACH %	75%	0%	25%	60%	0%	40%	0%	86%	14%	6%	88%	6%
	APP/DEPART	8	/	3	5	/	10	50	/	48	49	/	51
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	3	0	2	0	0	1	0	18	4	1	22	2
PM	APPROACH %	60%	0%	40%	0%	0%	100%	0%	82%	18%	4%	88%	8%
	PEAK HR FACTOR	0.417			0.250			0.688			0.781		
	APP/DEPART	5	/	2	1	/	5	22	/	20	25	/	26
	04:00 PM	0	1	2	0	0	0	0	10	1	0	8	1
	4:15 PM	1	0	1	0	0	1	0	13	4	1	6	0
	4:30 PM	2	0	0	1	0	0	0	5	1	0	8	2
	4:45 PM	1	0	0	1	1	0	0	10	1	1	3	0
	5:00 PM	1	0	1	2	0	1	0	6	2	0	3	2
	5:15 PM	0	0	0	0	1	0	0	7	3	0	7	2
	5:30 PM	2	0	1	0	0	0	0	3	1	0	10	0
	5:45 PM	0	0	1	0	0	0	0	6	1	0	5	0
	VOLUMES	7	1	6	4	2	2	0	60	14	2	50	7
	APPROACH %	50%	7%	43%	50%	25%	25%	0%	81%	19%	3%	85%	12%
	APP/DEPART	14	/	8	8	/	18	74	/	70	59	/	59
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	4	0	1	4	2	1	0	28	7	1	21	6
	APPROACH %	80%	0%	20%	57%	29%	14%	0%	80%	20%	4%	75%	21%
	PEAK HR FACTOR	0.625			0.583			0.795			0.700		
	APP/DEPART	5	/	6	7	/	10	35	/	33	28	/	26

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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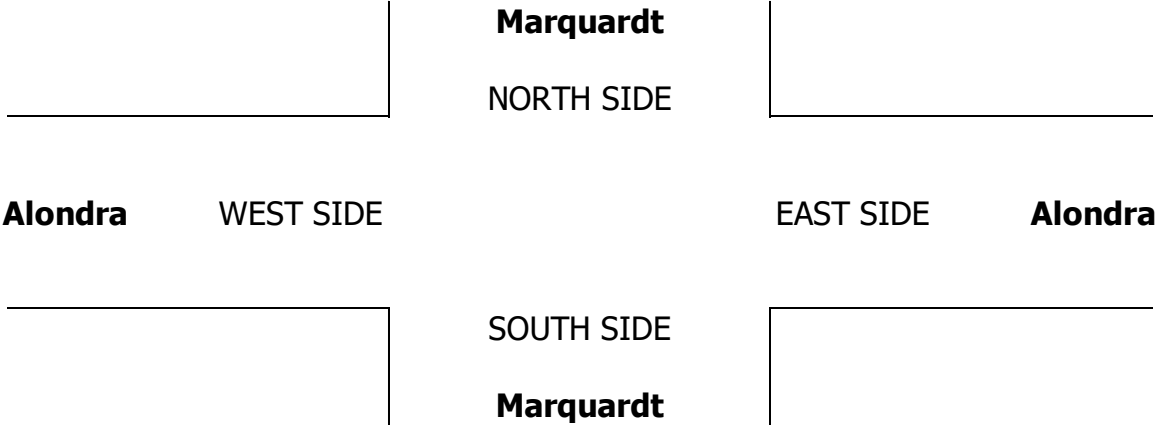
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marquardt			Marquardt			Alondra			Alondra			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0
	BEGIN PEAK HR	7:30 AM											
	VOLUMES	0	0	1	0	0	0	0	0	0	0	0	1
PM	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.000		
	APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	1	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	1	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.250		
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Marquardt  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
25  
SIGNAL

CLASS 6:

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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BUSES

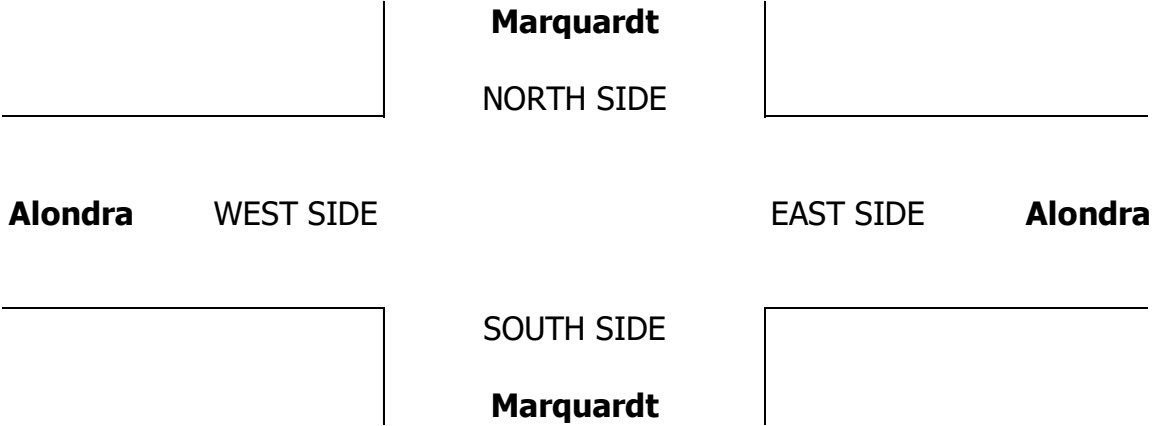
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Marquardt			Marquardt			Alondra			Alondra			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	1	0	0	1	0	2
	7:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	7:30 AM	0	0	1	0	0	0	0	0	0	1	0	2
	7:45 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	2	0	2
	8:45 AM	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	1	0	0	0	5	0	0	5	0	11
	APPROACH %	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	0	5	/	6	5	/	5
	BEGIN PEAK HR	7:30 AM											
PM	VOLUMES	0	0	1	0	0	0	2	0	0	2	0	5
	APPROACH %	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.500			0.500		
	APP/DEPART	1	/	0	0	/	0	2	/	3	2	/	2
	04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	1	0	0	1	0	3
	5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	2
	VOLUMES	0	0	1	0	0	0	4	0	0	5	0	10
	APPROACH %	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	0	4	/	5	5	/	5
	BEGIN PEAK HR	4:30 PM											
	VOLUMES	0	0	1	0	0	0	2	0	0	2	0	5
	APPROACH %	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.500			0.500		
	APP/DEPART	1	/	0	0	/	0	2	/	3	2	/	2

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
Tue, Apr 20, 21

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Valley View  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
26  
SIGNAL

NOTES:

AM  
PM  
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OTHER  
OTHER

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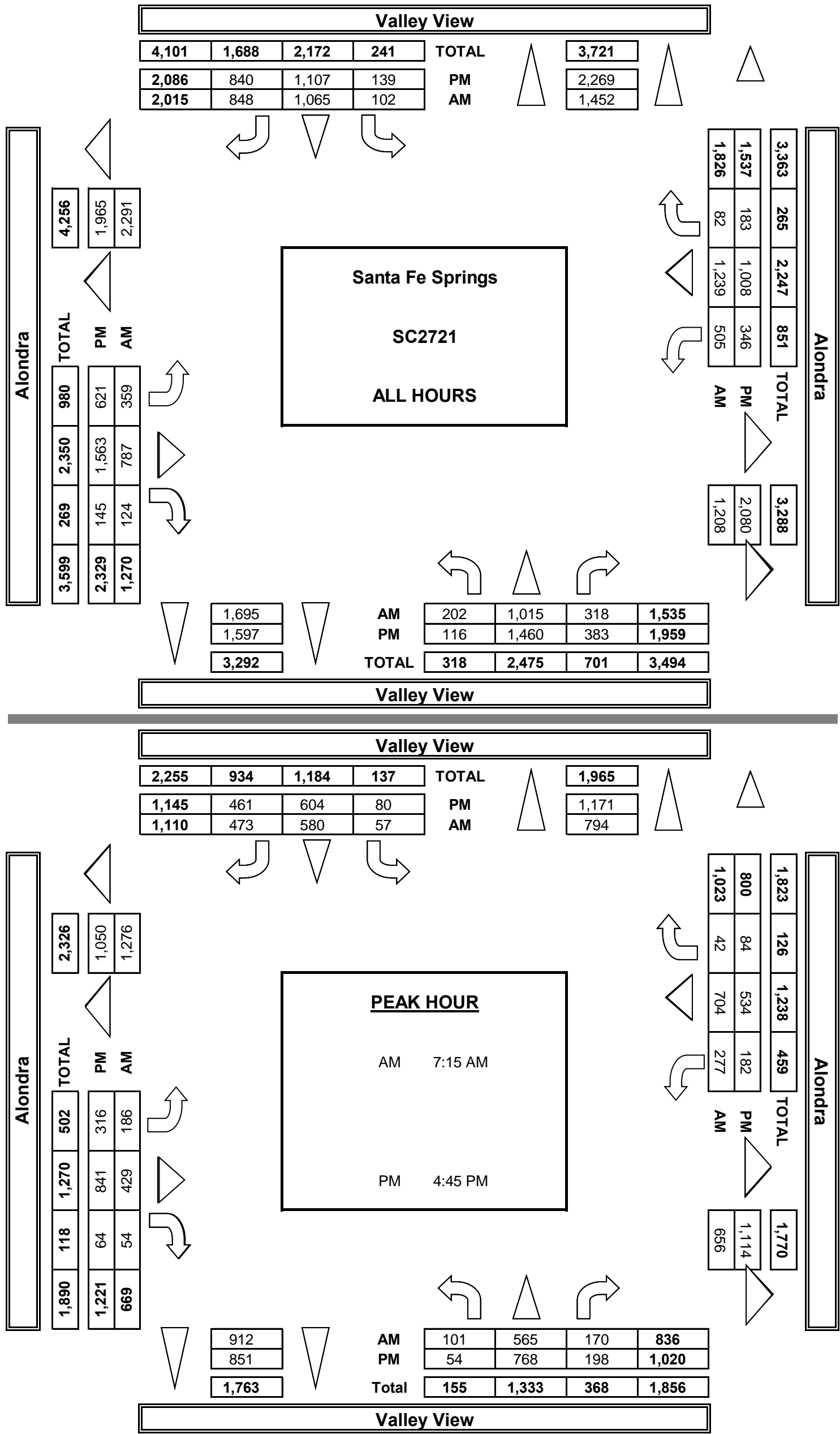
☒ Add U-Turns to Left Turns

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Valley View			Valley View			Alondra			Alondra								
LANES:		NL 2	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 2.5	WR 0.5	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	19	99	28	10	133	105	34	72	9	63	135	10	717	0	1	0	1	2
	7:15 AM	24	135	33	11	131	106	39	83	12	63	157	16	810	0	0	0	0	0
	7:30 AM	25	113	48	16	151	134	45	110	13	62	195	11	923	0	0	0	1	1
	7:45 AM	31	185	44	18	159	131	51	124	13	75	173	6	1,010	0	0	0	0	0
	8:00 AM	21	132	45	12	139	102	51	112	16	77	179	9	895	2	1	0	0	3
	8:15 AM	40	117	39	15	152	109	43	91	17	56	118	7	804	1	1	0	0	2
	8:30 AM	20	119	40	11	109	99	53	100	24	68	164	13	820	2	0	3	1	6
	8:45 AM	22	115	41	9	91	62	43	95	20	41	118	10	667	0	0	4	1	5
	VOLUMES	202	1,015	318	102	1,065	848	359	787	124	505	1,239	82	6,646	5	3	7	4	19
	APPROACH %	13%	66%	21%	5%	53%	42%	28%	62%	10%	28%	68%	4%						
	APP/DEPART	1,535	/	1,452	2,015	/	1,695	1,270	/	1,208	1,826	/	2,291	0					
	BEGIN PEAK HR	7:15 AM																	
VOLUMES	101	565	170	57	580	473	186	429	54	277	704	42	3,638						
APPROACH %	12%	68%	20%	5%	52%	43%	28%	64%	8%	27%	69%	4%							
PEAK HR FACTOR	0.804			0.901			0.890			0.954			0.900						
APP/DEPART	836	/	794	1,110	/	912	669	/	656	1,023	/	1,276	0						
PM	04:00 PM	26	149	46	21	129	110	69	150	27	38	119	29	913	1	1	1	1	4
	4:15 PM	17	173	38	9	134	76	66	178	20	38	110	20	879	0	1	0	0	1
	4:30 PM	8	168	41	16	141	121	88	219	16	44	146	32	1,040	0	1	0	0	1
	4:45 PM	12	191	57	20	126	86	71	175	22	48	134	22	964	0	0	1	0	1
	5:00 PM	13	185	36	18	191	128	87	211	17	35	130	22	1,073	1	3	1	0	5
	5:15 PM	16	198	58	23	143	128	81	227	11	47	121	29	1,082	1	1	0	0	2
	5:30 PM	13	194	47	19	144	119	77	228	14	52	149	11	1,067	0	2	1	1	4
	5:45 PM	11	202	60	13	99	72	82	175	18	44	99	18	893	0	0	0	2	2
	VOLUMES	116	1,460	383	139	1,107	840	621	1,563	145	346	1,008	183	7,911	3	9	4	4	20
	APPROACH %	6%	75%	20%	7%	53%	40%	27%	67%	6%	23%	66%	12%						
	APP/DEPART	1,959	/	2,269	2,086	/	1,597	2,329	/	2,080	1,537	/	1,965	0					
	BEGIN PEAK HR	4:45 PM																	
	VOLUMES	54	768	198	80	604	461	316	841	64	182	534	84	4,186					
	APPROACH %	5%	75%	19%	7%	53%	40%	26%	69%	5%	23%	67%	11%						
	PEAK HR FACTOR	0.938			0.849			0.957			0.943			0.967					
APP/DEPART	1,020	/	1,171	1,145	/	851	1,221	/	1,114	800	/	1,050	0						



ALL PED AND BIKE						PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
1	0	0	2	3	AM	1	0	0	1	2	0	0	0	1	1
3	1	1	2	7		1	0	1	1	3	2	1	0	1	4
1	2	2	1	6		1	1	1	1	4	0	1	1	0	2
1	0	0	1	2		1	0	0	1	2	0	0	0	0	0
2	1	0	0	3		2	1	0	0	3	0	0	0	0	0
2	1	0	1	4		2	1	0	1	4	0	0	0	0	0
1	1	0	0	2		1	0	0	0	1	0	1	0	0	1
2	0	0	2	4		1	0	0	2	3	1	0	0	0	1
13	6	3	9	31	PM	10	3	2	7	22	3	3	1	2	9
2	1	2	2	7		1	0	0	2	3	1	1	2	0	4
1	2	0	2	5		1	0	0	1	2	0	2	0	1	3
4	0	0	1	5		2	0	0	1	3	2	0	0	0	2
3	1	1	3	8		1	0	1	1	3	2	1	0	2	5
0	0	0	1	1		0	0	0	1	1	0	0	0	0	0
2	1	0	2	5		1	1	0	1	3	1	0	0	1	2
1	3	0	0	4		0	2	0	0	2	1	1	0	0	2
0	2	0	2	4		0	1	0	2	3	0	1	0	0	1
13	10	3	13	39		6	4	1	9	20	7	6	2	4	19

AimTD LLC  
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Valley View Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 26 SIGNAL
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PCE Adjusted	NOTES:								AM		▲	
	Class	1	2	3	4	5	6		PM		N	
	Factor	1	1.5	2	3	2	2		MD	◀ W		E ▶
									OTHER		S	
									OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
	Valley View			Valley View			Alondra			Alondra				NB	SB	EB	WB	TTL
LANES:	NL 2	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 2.5	WR 0.5	TOTAL					

AM	7:00 AM	21	120	35	12	156	107	37	86	12	68	143	16	812					0
	7:15 AM	29	160	41	13	154	113	49	98	14	68	166	21	923					0
	7:30 AM	34	129	61	19	176	144	49	117	17	81	216	16	1,056					0
	7:45 AM	38	211	56	23	180	135	57	131	17	90	191	10	1,136					0
	8:00 AM	26	157	67	20	150	106	53	126	19	92	194	12	1,019					0
	8:15 AM	57	142	54	22	189	110	47	101	23	68	123	9	943					0
	8:30 AM	24	152	57	19	136	105	57	117	29	78	179	15	963					0
	8:45 AM	27	132	69	10	110	70	47	108	25	51	129	15	790					0
	VOLUMES	253	1,202	438	136	1,250	888	394	882	154	595	1,339	111	7,639	0	0	0	0	0
	APPROACH %	13%	63%	23%	6%	55%	39%	28%	62%	11%	29%	65%	5%						
	APP/DEPART	1,893	/	1,707	2,273	/	1,998	1,429	/	1,455	2,045	/	2,479	0					
PM	BEGIN PEAK HR	7:15 AM																	
	VOLUMES	126	657	225	74	659	497	207	471	66	331	766	57	4,133					
	APPROACH %	12%	65%	22%	6%	54%	40%	28%	63%	9%	29%	66%	5%						
	PEAK HR FACTOR	0.826			0.911			0.911			0.924			0.909					
	APP/DEPART	1,007	/	921	1,230	/	1,055	743	/	769	1,154	/	1,389	0					
	04:00 PM	46	159	54	27	136	123	78	167	36	55	127	38	1,043					0
	4:15 PM	29	193	45	14	146	84	68	201	26	48	119	25	993					0
	4:30 PM	16	183	54	22	159	134	91	233	19	53	156	42	1,160					0
	4:45 PM	18	212	66	29	142	89	76	193	28	55	140	28	1,073					0
	5:00 PM	22	201	47	22	215	133	91	224	20	46	137	24	1,180					0
	5:15 PM	28	205	68	31	161	135	81	240	13	50	135	36	1,180					0
5:30 PM	17	212	55	30	145	122	83	238	17	56	167	13	1,152					0	
5:45 PM	22	213	73	19	112	76	85	184	26	45	102	19	973					0	
VOLUMES	196	1,578	460	191	1,215	894	651	1,678	183	405	1,081	223	8,752	0	0	0	0	0	
APPROACH %	9%	71%	21%	8%	53%	39%	26%	67%	7%	24%	63%	13%							
APP/DEPART	2,233	/	2,451	2,299	/	1,803	2,512	/	2,328	1,709	/	2,170	0						
BEGIN PEAK HR	4:45 PM																		
VOLUMES	84	830	235	111	662	478	331	894	77	206	578	100	4,584						
APPROACH %	7%	72%	20%	9%	53%	38%	25%	69%	6%	23%	65%	11%							
PEAK HR FACTOR	0.957			0.846			0.965			0.938			0.971						
APP/DEPART	1,149	/	1,261	1,250	/	945	1,301	/	1,239	884	/	1,139	0						





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Valley View  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
26  
SIGNAL

CLASS 1:  
PASSENGER  
VEHICLES

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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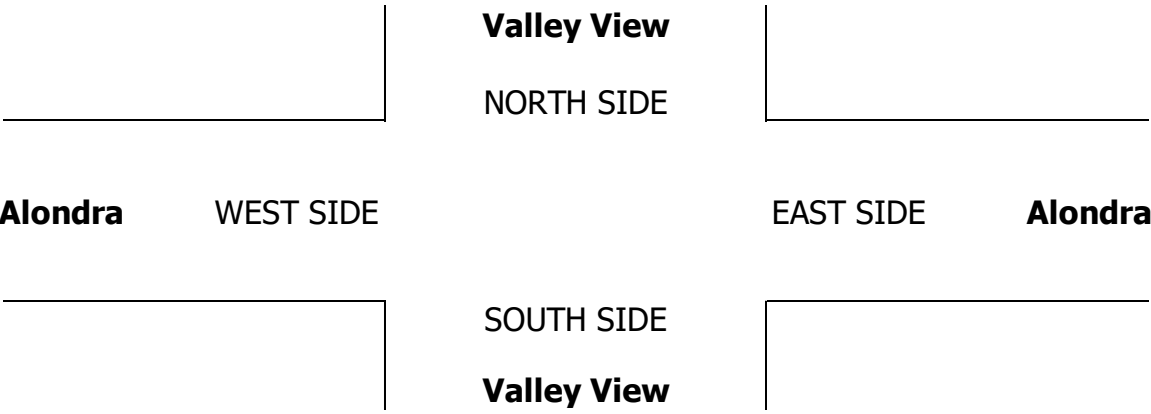
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Valley View			Valley View			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	1	1	1	3	0	1	2.5	0.5	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	16	83	24	6	108	103	31	62	7	57	128	6	631
	7:15 AM	20	116	27	8	113	101	30	73	10	59	149	8	714
	7:30 AM	17	97	37	14	123	122	41	104	9	52	180	5	801
	7:45 AM	25	161	35	15	139	127	44	117	10	65	156	3	897
	8:00 AM	18	111	29	3	128	98	48	99	13	68	162	7	784
	8:15 AM	30	95	28	8	120	107	38	81	14	47	112	6	686
	8:30 AM	16	92	31	5	89	94	47	85	19	61	149	10	698
	8:45 AM	19	101	21	8	69	54	39	83	16	33	108	6	557
	VOLUMES	161	856	232	67	889	806	318	704	98	442	1,144	51	5,768
	APPROACH %	13%	69%	19%	4%	50%	46%	28%	63%	9%	27%	70%	3%	
	APP/DEPART	1,249	/	1,219	1,762	/	1,430	1,120	/	1,007	1,637	/	2,112	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	78	485	128	40	503	448	163	393	42	243	647	23	3,196
	APPROACH %	11%	70%	18%	4%	51%	45%	27%	66%	7%	27%	71%	3%	
	PEAK HR FACTOR	0.784			0.882			0.874			0.964			0.891
	APP/DEPART	693	/	671	991	/	790	598	/	562	914	/	1,173	0
PM	04:00 PM	14	135	39	16	124	95	63	134	21	29	110	24	804
	4:15 PM	10	152	34	6	124	69	64	161	16	30	100	17	783
	4:30 PM	4	151	32	11	126	109	82	202	13	39	139	25	933
	4:45 PM	8	169	49	13	109	82	67	162	18	43	127	15	862
	5:00 PM	8	169	29	15	172	119	83	199	14	29	123	19	979
	5:15 PM	9	187	52	15	125	119	81	215	10	45	112	25	995
	5:30 PM	11	178	41	12	143	117	74	220	12	47	139	10	1,004
	5:45 PM	5	189	51	9	89	68	80	167	12	43	95	17	825
	VOLUMES	69	1,330	327	97	1,012	778	594	1,460	116	305	945	152	7,185
	APPROACH %	4%	77%	19%	5%	54%	41%	27%	67%	5%	22%	67%	11%	
	APP/DEPART	1,726	/	2,082	1,887	/	1,432	2,170	/	1,878	1,402	/	1,793	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	35	703	171	49	549	437	303	796	54	164	501	69	3,840
	APPROACH %	4%	77%	19%	5%	53%	42%	26%	69%	5%	22%	68%	9%	
	PEAK HR FACTOR	0.917			0.850			0.944			0.936			0.956
	APP/DEPART	910	/	1,081	1,041	/	768	1,155	/	1,016	734	/	975	0

0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
2	0	0	0	2
1	0	0	0	1
2	0	3	1	6
0	0	3	1	4
5	0	6	4	15

1	1	1	1	4
0	1	0	0	1
0	1	0	0	1
0	0	1	0	1
0	3	1	0	4
1	1	0	0	2
0	2	0	0	2
0	0	0	2	2
2	9	3	3	17



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Valley View Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 26 SIGNAL
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CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	<div>▲ N ◀ W S ▼</div>	E ▶
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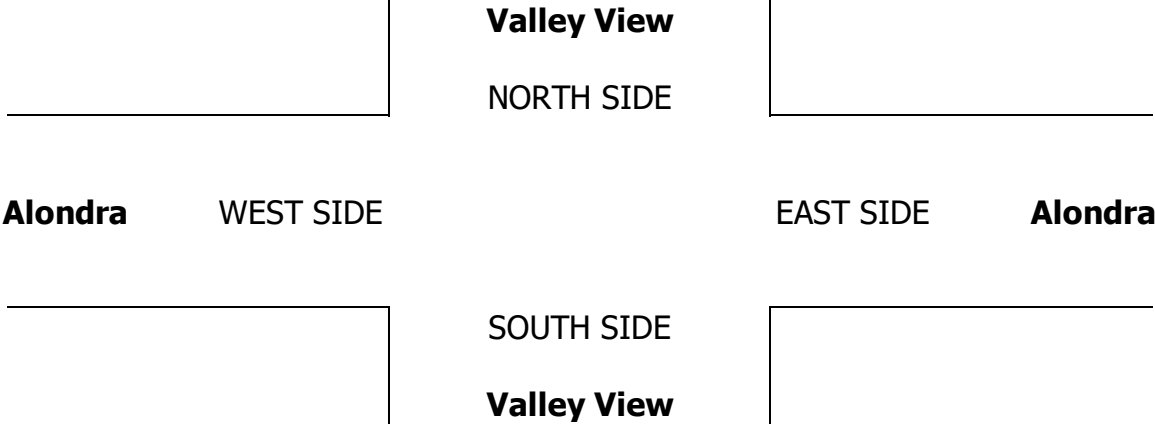
	NORTHBOUND Valley View			SOUTHBOUND Valley View			EASTBOUND Alondra			WESTBOUND Alondra			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	2	6	0	4	16	1	2	3	1	4	2	0	41
	7:15 AM	2	8	3	3	6	2	5	3	1	2	5	7	47
	7:30 AM	3	8	6	1	19	9	2	2	3	0	5	5	63
	7:45 AM	3	14	4	0	12	3	4	5	1	3	10	1	60
	8:00 AM	1	9	6	7	7	2	3	7	2	2	10	1	57
	8:15 AM	1	10	5	4	17	2	4	6	0	4	5	0	58
	8:30 AM	3	13	1	3	6	3	5	7	3	3	9	3	59
	8:45 AM	1	6	7	1	16	5	3	6	2	4	5	1	57
	VOLUMES	16	74	32	23	99	27	28	39	13	22	51	18	442
	APPROACH %	13%	61%	26%	15%	66%	18%	35%	49%	16%	24%	56%	20%	
	APP/DEPART	122	/	122	149	/	134	80	/	91	91	/	95	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	9	39	19	10	44	16	14	17	7	7	30	14	227
PM	APPROACH %	13%	58%	28%	14%	62%	23%	37%	45%	18%	14%	59%	27%	
	PEAK HR FACTOR	0.798			0.612			0.792			0.911			0.901
	APP/DEPART	67	/	68	71	/	58	38	/	46	51	/	55	0
	04:00 PM	2	10	3	3	2	10	1	9	2	1	4	1	48
	4:15 PM	1	12	1	1	4	3	1	5	1	3	7	1	40
	4:30 PM	0	11	2	3	7	5	6	12	2	1	2	2	53
	4:45 PM	1	12	4	3	11	3	1	5	1	2	4	4	51
	5:00 PM	1	10	1	1	8	8	2	6	2	1	4	3	47
	5:15 PM	1	10	1	4	10	7	0	5	0	1	3	1	43
	5:30 PM	0	8	2	1	1	1	0	3	1	4	1	0	22
	5:45 PM	1	10	3	0	4	2	1	2	3	1	3	1	31
	VOLUMES	7	83	17	16	47	39	12	47	12	14	28	13	335
	APPROACH %	7%	78%	16%	16%	46%	38%	17%	66%	17%	25%	51%	24%	
	APP/DEPART	107	/	108	102	/	73	71	/	81	55	/	73	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	2	40	8	9	30	19	3	19	4	7	12	8	163
	APPROACH %	4%	78%	16%	16%	52%	33%	12%	73%	15%	25%	43%	29%	
	PEAK HR FACTOR	0.750			0.690			0.650			0.700			0.799
	APP/DEPART	51	/	51	58	/	42	26	/	37	28	/	33	0

0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	3	1	0	4

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
1	0	0	1	2





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Valley View  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
26  
SIGNAL

CLASS 3:  
3-AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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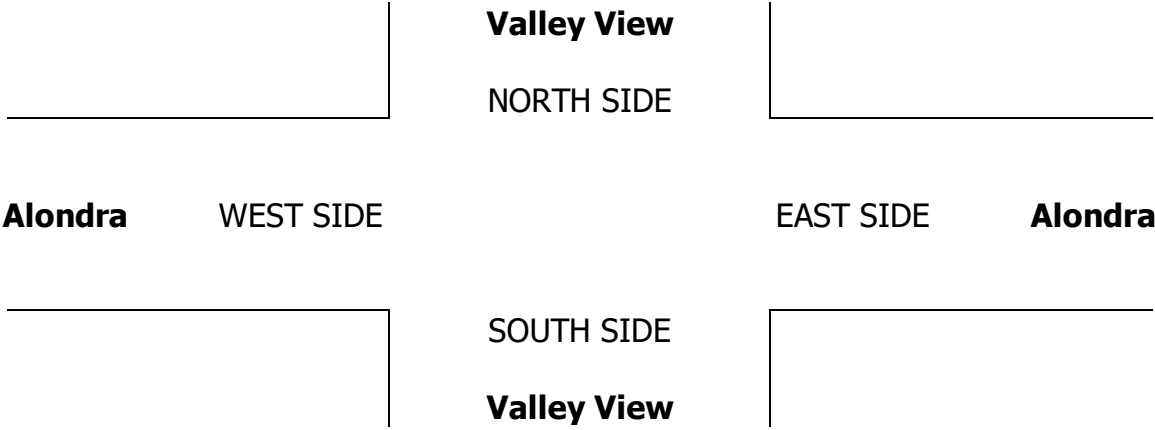
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Valley View			Valley View			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	1	1	1	3	0	1	2.5	0.5	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	2	0	0	3	1	0	1	0	1	1	0	10
	7:15 AM	0	1	0	0	4	0	1	1	1	0	0	1	9
	7:30 AM	3	3	0	0	3	1	0	0	0	1	1	0	12
	7:45 AM	1	1	0	1	1	0	1	0	0	0	1	1	7
	8:00 AM	0	4	1	0	0	1	0	2	0	0	3	0	11
	8:15 AM	2	4	0	1	2	0	0	0	0	0	0	0	9
	8:30 AM	0	2	0	0	4	0	1	3	1	0	0	0	11
	8:45 AM	0	1	2	0	1	1	0	1	0	0	2	2	10
	VOLUMES	7	18	3	2	18	4	3	8	2	2	8	4	79
	APPROACH %	25%	64%	11%	8%	75%	17%	23%	62%	15%	14%	57%	29%	
	APP/DEPART	28	/	25	24	/	22	13	/	13	14	/	19	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	4	9	1	1	8	2	2	3	1	1	5	2	39
	APPROACH %	29%	64%	7%	9%	73%	18%	33%	50%	17%	13%	63%	25%	
	PEAK HR FACTOR	0.583			0.688			0.500			0.667			0.813
	APP/DEPART	14	/	13	11	/	10	6	/	5	8	/	11	0
PM	04:00 PM	1	3	2	0	0	2	2	2	0	0	3	0	15
	4:15 PM	1	4	0	0	2	2	1	3	1	2	0	0	16
	4:30 PM	0	3	2	0	2	3	0	2	0	0	1	1	14
	4:45 PM	1	5	1	1	2	1	2	0	1	0	1	2	17
	5:00 PM	0	1	2	1	2	1	1	2	0	0	0	0	10
	5:15 PM	1	0	1	2	3	1	0	3	0	0	0	0	11
	5:30 PM	0	2	1	2	0	0	0	2	0	0	1	0	8
	5:45 PM	0	0	1	2	1	1	0	3	0	0	0	0	8
	VOLUMES	4	18	10	8	12	11	6	17	2	2	6	3	99
	APPROACH %	13%	56%	31%	26%	39%	35%	24%	68%	8%	18%	55%	27%	
	APP/DEPART	32	/	27	31	/	16	25	/	35	11	/	21	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	2	8	5	6	7	3	3	7	1	0	2	2	46
	APPROACH %	13%	53%	33%	38%	44%	19%	27%	64%	9%	0%	50%	50%	
	PEAK HR FACTOR	0.536			0.667			0.917			0.333			0.676
	APP/DEPART	15	/	13	16	/	8	11	/	18	4	/	7	0

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Valley View  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
26  
SIGNAL

CLASS 4:  
4 OR MORE  
AXLE  
TRUCKS

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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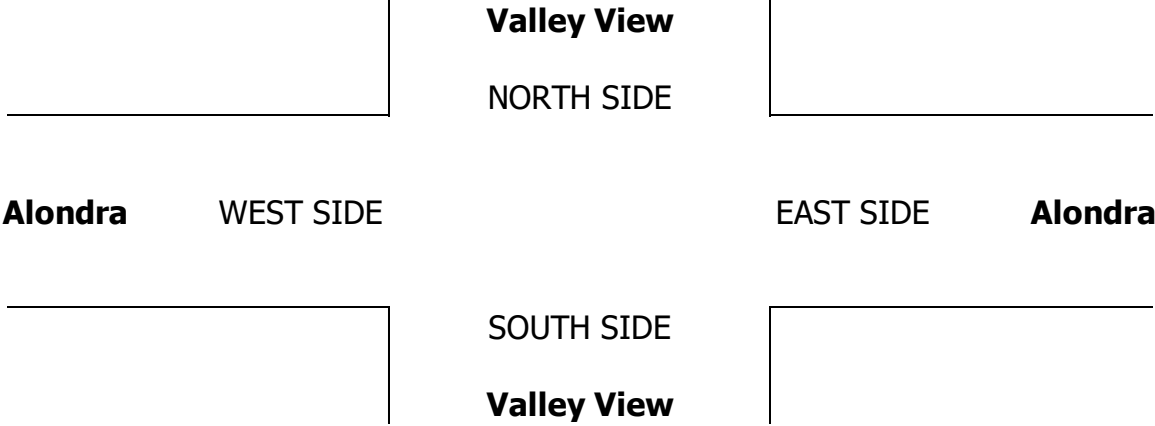
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Valley View			Valley View			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	1	1	1	3	0	1	2.5	0.5	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	8	3	0	6	0	1	5	1	1	2	2	29
	7:15 AM	2	10	3	0	8	3	3	6	0	2	3	0	40
	7:30 AM	2	4	5	1	6	2	1	2	1	9	8	1	42
	7:45 AM	2	9	5	2	7	1	1	2	1	6	6	1	43
	8:00 AM	2	8	9	2	3	1	0	4	1	7	3	1	41
	8:15 AM	7	8	6	2	13	0	1	3	3	5	1	1	50
	8:30 AM	1	12	8	3	10	2	0	5	1	4	4	0	50
	8:45 AM	2	6	11	0	5	2	1	4	2	4	3	1	41
	VOLUMES	18	65	50	10	58	11	8	31	10	38	30	7	336
	APPROACH %	14%	49%	38%	13%	73%	14%	16%	63%	20%	51%	40%	9%	
	APP/DEPART	133	/	80	79	/	106	49	/	91	75	/	59	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	8	31	22	5	24	7	5	14	3	24	20	3	166
	APPROACH %	13%	51%	36%	14%	67%	19%	23%	64%	14%	51%	43%	6%	
	PEAK HR FACTOR	0.803			0.818			0.611			0.653			0.965
	APP/DEPART	61	/	39	36	/	51	22	/	41	47	/	35	0
PM	04:00 PM	9	1	2	2	3	3	3	5	4	8	1	4	45
	4:15 PM	5	5	3	2	4	2	0	8	2	3	2	2	38
	4:30 PM	4	3	5	2	6	3	0	3	1	4	4	4	39
	4:45 PM	2	5	3	3	4	0	1	7	2	3	1	1	32
	5:00 PM	4	5	4	1	9	0	1	4	1	5	2	0	36
	5:15 PM	5	1	4	2	5	1	0	3	1	1	6	3	32
	5:30 PM	2	6	3	4	0	1	3	3	1	1	8	1	33
	5:45 PM	5	3	5	2	5	1	1	2	3	0	0	0	27
	VOLUMES	36	29	29	18	36	11	9	35	15	25	24	15	282
	APPROACH %	38%	31%	31%	28%	55%	17%	15%	59%	25%	39%	38%	23%	
	APP/DEPART	94	/	52	65	/	76	59	/	82	64	/	72	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	13	17	14	10	18	2	4	17	5	10	17	5	133
	APPROACH %	30%	39%	32%	33%	60%	7%	15%	63%	19%	31%	53%	16%	
	PEAK HR FACTOR	0.846			0.750			0.675			0.800			0.924
	APP/DEPART	44	/	26	30	/	33	27	/	41	32	/	33	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:  
4/20/21  
TUESDAY

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Santa Fe Springs  
Valley View  
Alondra

PROJECT #:  
LOCATION #:  
CONTROL:

SC2721  
26  
SIGNAL

CLASS 5:  
RV

NOTES:

AM  
PM  
MD  
OTHER  
OTHER

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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Valley View			Valley View			Alondra			Alondra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	1	1	1	1	3	0	1	2.5	0.5	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	1	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	1	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	2	0	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	2	0	/	0	2	/	0	0	/	0
	BEGIN PEAK HR	7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	2
PM	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.500			0.000		
	APP/DEPART	0	/	2	0	/	0	2	/	0	0	/	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	1	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	0	0	/	0	0	/	1
	BEGIN PEAK HR	4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.000		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 4/20/21 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Santa Fe Springs Valley View Alondra	PROJECT #: LOCATION #: CONTROL:	SC2721 26 SIGNAL
CLASS 6:	NOTES:		AM PM MD OTHER OTHER	<div>▲ N  S ▼</div> <div>◀ W E ▶</div>
BUSES				

	NORTHBOUND Valley View			SOUTHBOUND Valley View			EASTBOUND Alondra			WESTBOUND Alondra			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 2.5	WR 0.5	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	1	0	0	0	0	1	0	0	2	2	6
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	0	0	0	2	0	0	1	0	4
	7:45 AM	0	0	0	0	0	0	0	0	1	1	0	0	2
	8:00 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	8:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
	VOLUMES	0	2	1	0	1	0	0	5	1	1	6	2	19
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	83%	17%	11%	67%	22%	
	APP/DEPART	3	/	4	1	/	3	6	/	6	9	/	6	0
	BEGIN PEAK HR	7:15 AM												
PM	VOLUMES	0	1	0	0	1	0	0	2	1	1	2	0	8
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	67%	33%	33%	67%	0%	
	PEAK HR FACTOR	0.250			0.250			0.375			0.750			0.500
	APP/DEPART	1	/	1	1	/	3	3	/	2	3	/	2	0
	04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	VOLUMES	0	0	0	0	0	0	0	4	0	0	5	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	5	/	5	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	0	0	0	0	0	0	0	2	0	0	2	0	4
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.000			0.500			0.500			0.500
	APP/DEPART	0	/	0	0	/	0	2	/	2	2	/	2	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



## **Segment ADT Counts**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS1 Washington east of Broadway

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	1	30	4	0	0	0	0	0	1	0	0	0	0	36	12:00	0	238	61	0	12	1	0	0	3	0	0	0	0	315
0:15	0	30	3	0	0	0	0	0	1	0	0	0	0	34	12:15	0	229	44	1	9	2	0	1	1	0	0	0	0	287
0:30	1	26	5	0	2	0	0	0	3	0	0	0	0	37	12:30	0	221	46	0	15	3	0	1	2	0	0	0	0	288
0:45	0	29	7	0	0	0	0	0	0	0	0	0	0	36	12:45	0	258	70	0	22	1	0	0	1	0	1	0	0	353
1:00	0	19	3	0	1	0	0	0	0	0	0	0	0	23	13:00	1	222	65	0	10	1	0	0	4	0	0	0	0	303
1:15	0	13	3	0	0	0	0	0	0	0	0	0	0	16	13:15	1	216	51	1	15	0	0	0	0	0	0	0	0	284
1:30	0	13	5	0	1	0	0	0	1	0	0	0	0	20	13:30	2	229	46	0	12	1	0	0	2	0	0	0	0	292
1:45	0	17	7	0	1	0	0	0	0	0	0	0	0	25	13:45	0	230	72	0	7	0	0	0	3	0	0	0	0	312
2:00	0	15	3	0	1	0	0	0	0	0	0	0	0	19	14:00	0	222	42	1	8	0	0	0	2	0	0	0	0	275
2:15	0	14	7	0	2	0	0	0	0	1	0	0	0	24	14:15	1	215	38	0	16	0	0	0	1	0	0	0	0	271
2:30	0	9	4	0	0	0	0	0	2	0	0	0	0	15	14:30	0	236	47	0	11	0	0	0	3	0	0	0	0	297
2:45	0	18	0	0	1	0	0	0	0	0	0	0	0	19	14:45	2	221	45	1	10	1	0	0	5	0	0	0	0	285
3:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16	15:00	0	234	69	0	12	2	0	0	1	0	0	0	0	318
3:15	0	23	4	0	1	0	0	0	0	0	0	0	0	28	15:15	0	210	65	0	12	0	0	1	2	0	0	0	0	290
3:30	0	29	5	0	0	0	0	0	1	0	0	0	0	35	15:30	1	214	61	0	14	2	0	0	2	0	0	0	0	294
3:45	0	51	10	0	2	0	0	0	2	0	0	0	0	65	15:45	0	214	44	0	9	0	0	0	2	0	1	0	0	270
4:00	0	24	4	0	3	0	0	0	2	0	1	0	0	34	16:00	0	283	50	1	8	0	0	0	4	0	0	0	0	346
4:15	0	41	8	0	0	1	0	0	2	0	0	0	0	52	16:15	1	220	39	0	4	0	0	0	2	0	0	0	0	266
4:30	0	46	14	1	0	0	0	0	2	0	0	0	0	63	16:30	1	247	66	0	10	1	0	0	3	0	0	0	0	328
4:45	0	92	6	0	1	0	0	0	2	0	0	0	0	101	16:45	3	245	52	0	12	0	0	0	3	0	0	0	0	315
5:00	0	57	11	0	3	0	0	0	3	0	0	0	0	74	17:00	5	241	64	0	6	1	0	0	3	0	0	0	0	320
5:15	0	95	16	1	8	0	0	0	1	0	0	0	0	121	17:15	0	236	41	1	8	0	0	1	0	0	0	0	0	287
5:30	1	111	16	0	4	0	0	0	0	0	0	0	0	132	17:30	3	268	49	0	7	0	0	0	0	0	0	0	0	327
5:45	0	163	26	0	4	1	0	0	1	0	0	0	0	195	17:45	0	238	32	0	11	1	0	0	1	0	0	0	0	283
6:00	0	124	23	0	8	0	0	1	1	0	0	0	0	157	18:00	2	280	43	1	7	0	0	0	1	0	0	0	0	334
6:15	1	147	35	1	4	2	0	0	1	0	0	0	0	191	18:15	1	258	33	0	4	0	0	0	2	0	0	0	0	298
6:30	0	186	39	0	5	0	0	1	3	0	0	0	0	234	18:30	1	236	37	0	4	1	0	0	0	0	0	0	0	279
6:45	1	211	35	0	3	2	0	0	4	0	0	0	0	256	18:45	1	224	32	0	2	0	0	0	2	0	0	0	0	261
7:00	1	164	37	0	7	1	0	0	4	0	0	0	0	214	19:00	1	225	31	0	1	1	0	0	1	0	0	0	0	260
7:15	1	171	39	0	6	1	0	0	7	0	0	0	0	225	19:15	1	168	19	0	4	0	0	0	0	0	0	0	0	192
7:30	1	211	32	0	5	2	0	0	7	0	1	0	0	259	19:30	0	176	20	0	1	0	0	0	0	0	0	0	0	197
7:45	0	260	57	1	8	1	0	1	3	0	1	0	0	332	19:45	0	175	20	0	1	0	0	0	2	0	0	0	0	198
8:00	0	197	39	0	9	0	0	1	0	0	0	0	0	246	20:00	1	184	29	0	3	0	0	0	0	0	0	0	0	217
8:15	0	227	54	0	7	0	0	0	4	0	0	0	0	292	20:15	0	125	30	0	0	0	0	0	0	0	0	0	0	155
8:30	0	190	45	1	9	1	0	0	3	0	0	0	0	249	20:30	1	156	24	0	2	0	0	0	0	0	0	0	0	183
8:45	1	243	48	0	6	0	0	0	2	0	0	0	0	300	20:45	0	141	18	0	2	0	0	0	1	0	0	0	0	162
9:00	0	204	38	1	15	1	0	2	2	0	0	0	0	263	21:00	3	120	13	0	0	0	0	0	2	0	0	0	0	138
9:15	0	189	43	0	17	1	0	1	4	1	0	0	0	256	21:15	0	96	20	0	3	0	0	0	2	0	0	0	0	121
9:30	0	206	51	0	6	1	0	1	1	0	0	0	0	266	21:30	0	111	14	0	2	0	0	0	0	0	0	0	0	127
9:45	0	207	56	0	9	1	0	1	1	0	0	0	0	275	21:45	0	96	18	0	2	0	0	0	1	0	0	0	0	117
10:00	0	184	41	1	13	2	0	2	9	0	0	0	0	252	22:00	0	70	20	0	0	0	0	0	0	0	0	0	0	90
10:15	2	187	44	0	14	2	0	0	5	0	0	0	0	254	22:15	0	85	7	0	1	0	0	0	1	0	0	0	0	94
10:30	0	182	46	0	13	3	0	1	4	0	0	0	0	249	22:30	0	81	7	0	2	0	0	0	1	0	0	0	0	91
10:45	0	183	41	0	10	0	0	1	3	0	0	0	0	238	22:45	0	67	10	0	2	0	0	0	0	0	0	0	0	79
11:00	2	192	53	1	10	0	0	1	5	0	0	0	0	264	23:00	0	52	8	0	0	0	0	0	0	1	0	0	0	61
11:15	0	207	45	1	24	1	0	1	3	0	0	0	0	282	23:15	0	47	4	0	1	0	0	0	1	0	0	0	0	53
11:30	1	189	47	0	20	0	0	0	2	0	0	0	0	259	23:30	0	44	8	0	0	0	0	0	2	0	0	0	0	54
11:45	0	210	42	0	13	0	0	0	5	0	0	0	0	270	23:45	0	45	5	0	1	0	0	0	0	0	0	0	0	51
TOTAL	14	5,651	1,202	9	276	24	0	15	108	1	3	0	0	7,303	TOTAL	33	8,849	1,729	7	305	19	0	4	69	0	3	0	0	11,018

AM PEAK HOUR 7:30 AM  
AM PEAK VOLUME 1,129

PM PEAK HOUR 4:00 PM  
PM PEAK VOLUME 1,255

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	47	14,500	2,931	16	581	43	0	19	177	1	6	0	0	18,321
% OF TOTAL	0.3%	79.1%	16.0%	0.1%	3.2%	0.2%	0.0%	0.1%	1.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	103	30,014	6,110	37	1,192	93	0	39	379	2	11	0	0	37,980
% OF TOTAL	0.6%	163.8%	33.3%	0.2%	6.5%	0.5%	0.0%	0.2%	2.1%	0.0%	0.1%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS1 Washington east of Broadway

AM	WESTBOUND													TOTAL	PM	WESTBOUND													TOTAL
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13		Time	1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	46	12	0	0	0	0	0	1	0	0	0	0	59	12:00	1	246	54	1	14	2	0	0	4	0	0	0	0	322
0:15	2	25	4	0	0	0	0	0	0	0	0	0	0	31	12:15	1	257	63	0	12	0	0	2	4	0	0	0	0	339
0:30	0	54	11	0	2	0	0	0	0	0	0	0	0	67	12:30	1	253	59	1	10	1	0	0	3	0	0	0	0	328
0:45	0	30	5	0	0	0	0	0	0	0	0	0	0	35	12:45	1	257	59	0	13	1	0	1	1	0	0	0	0	333
1:00	0	22	0	0	0	0	0	0	0	0	0	0	0	22	13:00	2	228	46	2	11	0	0	0	4	0	0	0	0	293
1:15	0	13	1	0	0	0	0	0	0	0	0	0	0	14	13:15	2	237	51	0	17	2	0	0	4	0	0	0	0	313
1:30	0	31	2	0	2	0	0	0	0	0	0	0	0	35	13:30	0	270	63	0	11	0	0	0	1	0	0	0	0	345
1:45	0	14	5	0	0	0	0	0	0	0	0	0	0	19	13:45	0	260	53	0	14	0	0	0	2	0	0	0	0	329
2:00	0	11	4	0	6	2	0	0	0	0	0	0	0	23	14:00	1	280	59	1	11	0	0	1	2	0	0	0	0	355
2:15	0	21	5	0	1	0	0	0	0	0	0	0	0	27	14:15	0	232	58	0	10	0	0	0	3	0	0	0	0	303
2:30	0	21	4	0	0	0	0	0	0	0	0	0	0	25	14:30	0	281	50	0	7	1	0	0	2	0	0	0	0	341
2:45	0	17	5	0	2	0	0	0	0	0	0	0	0	24	14:45	0	260	60	0	5	2	0	0	3	0	0	0	0	330
3:00	0	17	6	0	0	0	0	0	0	0	0	0	0	23	15:00	1	260	60	1	14	0	0	1	0	0	0	0	0	337
3:15	0	19	5	0	4	0	0	0	1	0	0	0	0	29	15:15	1	252	47	0	9	1	0	0	2	0	0	0	0	312
3:30	0	35	4	0	1	0	0	0	1	0	0	0	0	41	15:30	1	292	56	0	8	0	0	0	1	0	0	0	0	358
3:45	0	21	6	0	2	0	0	0	0	0	0	0	0	29	15:45	1	284	49	1	9	0	0	0	4	0	0	0	0	348
4:00	0	49	11	0	6	1	0	1	0	0	0	0	0	68	16:00	1	250	38	0	6	0	0	0	1	0	0	0	0	296
4:15	0	43	20	0	8	0	0	0	3	0	0	0	0	74	16:15	2	269	45	0	8	1	0	0	1	0	0	0	0	326
4:30	0	64	27	0	9	1	0	0	0	0	0	0	0	101	16:30	0	322	64	0	6	1	0	0	2	0	1	0	0	396
4:45	0	73	25	0	8	1	0	0	4	0	0	0	0	111	16:45	1	285	40	1	4	0	0	0	0	0	0	0	0	331
5:00	1	98	39	0	8	0	0	1	5	0	1	0	0	153	17:00	0	333	38	0	4	0	0	1	2	0	0	0	0	378
5:15	0	123	36	0	8	0	0	0	6	0	0	0	0	173	17:15	2	319	56	0	3	0	0	0	3	0	0	0	0	383
5:30	0	116	46	0	3	0	0	0	4	0	0	0	0	169	17:30	2	267	33	0	1	0	0	0	3	0	0	0	0	306
5:45	1	94	38	0	7	1	0	0	5	0	0	0	0	146	17:45	2	237	41	1	4	2	0	0	4	0	0	0	0	291
6:00	2	112	34	1	10	3	0	1	4	0	0	0	0	167	18:00	0	256	35	0	3	0	0	0	3	0	0	0	0	297
6:15	2	132	46	0	8	5	0	0	5	0	0	0	0	198	18:15	1	196	34	0	5	0	0	0	2	0	0	0	0	238
6:30	1	165	43	0	7	0	0	0	1	0	0	0	0	217	18:30	0	206	40	0	3	0	0	0	3	0	0	0	0	252
6:45	0	175	43	1	11	2	0	0	2	0	0	0	0	234	18:45	1	197	30	0	3	0	0	0	1	0	0	0	0	232
7:00	0	172	42	1	19	1	0	1	2	0	0	0	0	238	19:00	0	235	22	1	1	0	0	1	2	0	0	0	0	262
7:15	0	201	58	0	11	0	0	0	2	0	0	0	0	272	19:15	1	219	29	0	2	0	0	0	2	0	0	0	0	253
7:30	0	186	44	0	17	1	0	0	3	0	0	0	0	251	19:30	0	209	30	0	0	0	0	0	0	0	0	0	0	239
7:45	1	204	49	0	16	0	0	1	4	0	0	0	0	275	19:45	0	227	26	1	1	0	0	0	0	0	0	0	0	255
8:00	0	205	52	1	14	0	0	1	6	1	1	0	0	281	20:00	2	226	28	0	0	0	0	0	1	0	0	0	0	257
8:15	1	179	43	1	12	4	0	0	4	0	0	0	0	244	20:15	0	201	39	0	1	0	0	0	1	0	0	0	0	242
8:30	0	143	60	0	13	0	0	0	5	0	0	0	0	221	20:30	2	185	31	0	0	0	0	0	0	0	0	0	0	218
8:45	0	179	58	0	13	1	0	1	6	0	0	0	0	258	20:45	0	164	20	0	2	0	0	0	0	0	0	0	0	186
9:00	1	170	29	0	18	0	0	3	4	0	1	0	0	226	21:00	3	164	17	0	1	0	0	0	0	0	0	0	0	185
9:15	0	201	45	1	8	0	0	0	4	0	1	0	0	260	21:15	0	137	14	0	0	0	0	0	2	0	0	0	0	153
9:30	0	194	43	0	15	1	0	1	3	0	0	0	0	257	21:30	1	113	12	0	0	0	0	0	2	0	0	0	0	128
9:45	0	198	53	0	8	1	0	0	4	0	0	0	0	264	21:45	0	94	10	0	2	0	0	0	0	0	0	0	0	106
10:00	0	186	49	0	13	1	0	0	2	0	0	0	0	251	22:00	1	111	8	0	1	1	0	0	0	0	0	0	0	122
10:15	1	199	55	1	7	2	0	0	2	0	0	0	0	267	22:15	2	94	5	0	1	0	0	0	0	0	0	0	0	102
10:30	1	180	57	0	10	1	0	1	3	0	0	0	0	253	22:30	1	71	16	0	2	1	0	0	1	0	0	0	0	92
10:45	1	196	54	0	15	1	0	0	4	0	0	0	0	271	22:45	0	74	10	0	2	0	0	0	1	0	0	0	0	87
11:00	1	193	39	0	8	1	0	0	4	0	0	0	0	246	23:00	0	69	10	0	3	0	0	0	3	0	0	0	0	85
11:15	0	194	40	1	9	0	0	0	8	0	0	0	0	252	23:15	1	53	5	0	0	0	0	0	1	0	0	0	0	60
11:30	1	227	43	0	12	2	0	1	5	0	0	0	0	291	23:30	0	59	7	0	2	0	0	0	1	0	0	0	0	69
11:45	0	235	51	2	13	1	0	0	3	0	0	0	0	305	23:45	0	40	8	0	1	0	0	0	0	0	0	0	0	49
TOTAL	17	5,483	1,451	10	364	34	0	13	120	1	4	0	0	7,497	TOTAL	39	###	1,728	11	247	16	0	7	82	0	1	0	0	12,162
AM PEAK HOUR														11:00 AM	PM PEAK HOUR														4:30 PM
AM PEAK VOLUME														1,094	PM PEAK VOLUME														1,488

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	56	###	3,179	21	611	50	0	20	202	1	5	0	0	19,659
% OF TOTAL	0.3%	78.9%	16.2%	0.1%	3.1%	0.3%	0.0%	0.1%	1.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS2 Norwalk south of Washington

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	17	0	0	0	1	0	0	0	0	0	0	0	18	12:00	0	95	20	0	8	3	0	1	6	0	0	0	0	133
0:15	0	12	2	0	0	0	0	0	1	0	0	0	0	15	12:15	2	107	12	1	2	0	0	0	4	1	0	0	0	129
0:30	0	11	2	0	1	0	0	0	0	0	0	0	0	14	12:30	0	107	14	1	13	3	0	0	7	0	0	0	0	145
0:45	0	7	0	0	0	0	0	0	2	0	0	0	0	9	12:45	0	102	12	1	12	2	0	0	7	0	0	0	0	136
1:00	0	12	1	0	0	0	0	0	1	0	0	0	0	14	13:00	0	104	18	1	10	2	0	0	4	0	0	0	0	139
1:15	0	13	0	0	0	0	0	0	1	0	0	0	0	14	13:15	0	116	26	0	6	2	0	1	9	0	0	0	0	160
1:30	0	13	0	0	0	0	0	0	0	0	0	0	0	13	13:30	1	81	22	1	6	4	0	0	3	0	0	0	0	118
1:45	0	10	1	0	0	0	0	1	2	0	0	0	0	14	13:45	0	120	32	0	5	3	0	0	5	0	0	0	0	165
2:00	0	12	1	0	0	0	0	0	1	0	0	0	0	14	14:00	0	116	26	0	4	3	0	0	3	0	0	0	0	152
2:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7	14:15	0	138	19	1	8	3	0	0	7	0	0	0	0	176
2:30	0	18	0	0	0	0	0	0	1	0	0	0	0	19	14:30	1	172	36	0	4	1	0	1	5	0	1	0	0	221
2:45	0	10	2	0	1	0	0	0	0	0	0	0	0	13	14:45	1	158	28	1	6	3	0	1	2	0	0	0	0	200
3:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	15:00	3	158	29	0	5	0	0	0	4	0	0	0	0	199
3:15	0	9	0	0	0	0	0	0	0	0	0	1	0	10	15:15	0	160	24	1	4	2	0	0	9	0	0	0	0	200
3:30	0	20	2	0	0	0	0	0	2	0	0	0	0	24	15:30	0	179	27	0	3	2	0	0	4	0	0	0	0	215
3:45	0	12	2	0	0	0	0	0	4	0	0	0	0	18	15:45	1	161	23	1	7	1	0	0	4	0	0	0	0	198
4:00	0	11	2	0	0	0	0	0	3	0	1	0	0	17	16:00	3	180	25	0	2	4	0	3	1	0	0	0	0	218
4:15	0	9	5	0	0	0	0	0	0	0	0	0	0	14	16:15	0	154	23	1	3	2	0	1	4	0	0	0	0	188
4:30	0	24	5	0	0	0	0	0	1	0	0	0	0	30	16:30	2	192	37	1	1	4	1	2	3	0	0	0	0	243
4:45	0	22	2	0	1	0	0	0	2	0	0	0	0	27	16:45	1	157	21	0	2	1	0	6	4	0	0	0	0	192
5:00	0	27	6	0	4	1	0	0	0	0	0	0	0	38	17:00	0	206	21	0	2	3	0	3	3	0	0	0	0	238
5:15	0	38	5	0	0	1	0	0	4	0	0	0	0	48	17:15	0	180	20	1	2	2	0	0	8	0	0	0	0	213
5:30	0	49	4	0	4	3	0	0	4	0	0	0	0	64	17:30	1	175	25	0	1	1	0	1	1	0	0	0	0	205
5:45	0	50	9	0	4	3	0	0	8	0	0	0	0	74	17:45	0	146	12	1	1	0	0	4	3	0	0	0	0	167
6:00	0	40	10	1	2	3	0	0	2	0	0	0	0	58	18:00	0	151	14	0	0	0	0	4	1	0	0	0	0	170
6:15	0	46	7	0	1	0	0	0	4	1	0	0	0	59	18:15	0	112	5	1	1	0	0	2	4	0	0	0	0	125
6:30	0	68	14	1	3	0	0	0	6	0	0	0	0	92	18:30	0	117	12	0	2	0	0	1	3	0	0	0	0	135
6:45	0	94	13	0	5	3	0	2	6	0	0	0	0	123	18:45	0	103	16	0	1	1	0	7	1	0	0	0	0	129
7:00	0	67	10	1	10	1	0	0	8	0	0	0	0	97	19:00	0	91	12	0	0	0	0	2	2	0	0	0	0	107
7:15	0	76	13	1	7	3	0	0	2	0	1	0	0	103	19:15	0	125	17	1	2	1	0	0	2	0	0	0	0	148
7:30	0	81	18	1	7	2	0	0	7	1	0	0	0	117	19:30	0	83	6	0	1	1	0	1	1	0	0	0	0	93
7:45	0	85	22	0	7	0	0	1	5	0	0	0	0	120	19:45	0	82	10	1	0	0	0	1	2	0	0	0	0	96
8:00	0	89	10	2	12	1	0	1	3	0	0	0	0	118	20:00	0	65	7	0	1	0	0	0	1	0	0	0	0	74
8:15	0	87	12	1	10	2	0	0	4	0	0	0	0	116	20:15	0	92	3	0	1	0	0	0	4	0	0	0	0	100
8:30	0	71	11	3	14	2	0	0	3	0	0	0	0	104	20:30	0	68	8	0	0	1	0	0	0	0	1	0	0	78
8:45	0	67	14	0	4	2	0	0	10	0	0	0	0	97	20:45	0	54	5	0	0	0	0	0	0	0	0	0	0	59
9:00	0	62	6	1	4	0	0	0	5	0	0	0	0	78	21:00	0	78	5	1	1	0	0	0	2	0	0	0	0	87
9:15	0	82	15	0	11	5	0	0	4	0	0	0	0	117	21:15	1	54	5	0	0	0	0	0	0	0	1	0	0	61
9:30	0	94	14	1	8	4	0	0	2	0	0	0	0	123	21:30	0	45	3	0	0	1	0	0	0	0	0	0	0	49
9:45	0	71	15	0	5	2	0	1	6	0	0	0	0	100	21:45	0	42	6	0	0	0	0	0	1	0	0	0	0	49
10:00	0	66	15	1	15	0	0	0	7	0	0	0	0	104	22:00	0	40	4	0	0	1	0	0	1	0	0	0	0	46
10:15	0	79	20	0	10	3	0	0	5	0	0	0	0	117	22:15	0	45	6	0	0	0	0	0	1	0	0	0	0	52
10:30	0	81	12	1	6	4	0	0	10	0	0	0	0	114	22:30	0	40	1	0	0	0	0	0	1	0	0	0	0	42
10:45	0	88	19	0	6	5	0	0	6	0	0	0	0	124	22:45	0	29	4	0	1	0	0	0	1	0	0	0	0	35
11:00	0	81	14	1	5	1	0	0	2	0	0	0	0	104	23:00	0	28	0	0	0	0	0	0	0	0	0	0	0	28
11:15	0	106	26	0	5	3	0	0	5	0	0	0	0	145	23:15	0	20	1	0	0	0	0	0	1	0	0	0	0	22
11:30	0	108	18	1	2	6	0	0	8	0	0	0	0	143	23:30	0	19	2	0	1	1	0	0	0	0	0	0	0	23
11:45	0	106	20	0	12	1	0	2	4	0	0	0	0	145	23:45	1	25	2	0	0	0	0	0	1	0	0	0	0	29
TOTAL	0	2,315	400	17	186	62	0	8	161	2	3	0	0	3,154	TOTAL	18	5,072	706	17	129	58	1	42	140	1	3	0	0	6,187
AM PEAK HOUR AM PEAK VOLUME														11:00 AM 537	PM PEAK HOUR PM PEAK VOLUME														4:30 PM 886

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	18	7,387	1,106	34	315	120	1	50	301	3	6	0	0	9,341
% OF TOTAL	0.2%	79.1%	11.8%	0.4%	3.4%	1.3%	0.0%	0.5%	3.2%	0.0%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	39	14,317	2,143	67	561	180	4	100	507	5	6	0	0	17,929
% OF TOTAL	0.4%	153.3%	22.9%	0.7%	6.0%	1.9%	0.0%	1.1%	5.4%	0.1%	0.1%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS2 Norwalk south of Washington

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	7	0	0	0	0	0	0	1	0	0	0	0	8	12:00	0	81	17	1	7	0	0	0	5	0	0	0	0	111
0:15	0	10	0	0	0	0	0	0	0	0	0	0	0	10	12:15	1	96	13	0	5	2	1	0	5	0	0	0	0	123
0:30	0	5	2	0	0	0	0	0	0	0	0	0	0	7	12:30	0	125	27	1	9	1	0	1	3	0	0	0	0	167
0:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7	12:45	0	100	16	1	6	1	0	2	1	0	0	0	0	127
1:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	13:00	0	92	21	0	4	0	0	0	5	0	0	0	0	122
1:15	0	6	0	0	0	0	0	0	1	0	0	0	0	7	13:15	0	91	13	1	3	1	0	0	5	0	0	0	0	114
1:30	0	6	0	0	0	0	0	0	2	0	0	0	0	8	13:30	0	91	24	0	3	4	0	1	2	0	0	0	0	125
1:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6	13:45	0	114	24	1	2	2	0	0	2	0	0	0	0	145
2:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	14:00	0	98	20	0	10	0	0	0	4	0	0	0	0	132
2:15	0	5	2	0	0	0	0	0	0	0	0	0	0	7	14:15	0	111	26	1	9	1	0	0	5	0	0	0	0	153
2:30	1	4	0	0	0	1	0	0	0	0	0	0	0	6	14:30	0	104	25	0	6	4	0	1	5	0	0	0	0	145
2:45	0	12	1	0	0	0	0	0	0	0	0	0	0	13	14:45	0	141	24	0	3	1	0	1	3	0	0	0	0	173
3:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	15:00	2	131	28	2	8	1	0	0	4	0	0	0	0	176
3:15	0	8	0	0	0	0	0	0	0	0	0	0	0	8	15:15	0	118	34	0	10	2	0	1	1	0	0	0	0	166
3:30	1	3	0	0	0	0	0	0	1	0	0	0	0	5	15:30	0	130	30	1	8	1	0	2	5	0	0	0	0	177
3:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8	15:45	0	138	34	0	6	2	0	1	4	0	0	0	0	185
4:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16	16:00	0	123	23	0	10	0	0	0	6	0	0	0	0	162
4:15	0	21	3	0	0	0	0	0	0	0	0	0	0	24	16:15	0	157	20	1	7	2	0	0	4	0	0	0	0	191
4:30	0	42	4	0	0	0	0	0	1	0	0	0	0	47	16:30	0	133	20	0	5	1	1	1	5	0	0	0	0	166
4:45	0	37	1	0	1	0	0	0	2	0	0	0	0	41	16:45	0	149	18	1	3	0	0	1	6	0	0	0	0	178
5:00	0	17	5	0	1	0	0	0	2	0	0	0	0	25	17:00	1	160	18	2	4	0	0	0	4	0	0	0	0	189
5:15	1	41	1	0	1	1	0	0	1	0	0	0	0	46	17:15	0	132	23	0	3	0	1	2	1	0	0	0	0	162
5:30	1	64	9	0	2	1	0	0	2	0	0	0	0	79	17:30	1	168	18	1	6	2	0	4	0	1	0	0	0	201
5:45	0	76	8	1	1	2	0	0	2	0	0	0	0	90	17:45	1	159	13	0	4	0	0	2	2	0	0	0	0	181
6:00	0	51	6	0	2	1	0	1	1	0	0	0	0	62	18:00	2	127	19	0	3	1	0	3	6	0	0	0	0	161
6:15	1	54	9	0	3	0	0	0	2	0	0	0	0	69	18:15	0	148	13	1	2	0	0	2	2	0	0	0	0	168
6:30	0	77	14	0	2	2	0	0	3	0	0	0	0	98	18:30	0	118	11	1	0	0	0	2	2	0	0	0	0	134
6:45	1	109	14	1	1	0	0	0	2	0	0	0	0	128	18:45	0	92	11	1	1	0	0	0	1	0	0	0	0	106
7:00	1	75	9	1	3	2	0	0	2	0	0	0	0	93	19:00	0	114	12	0	3	1	0	0	1	0	0	0	0	131
7:15	0	121	16	0	3	0	0	1	1	0	0	0	0	142	19:15	0	94	12	1	0	0	0	0	0	0	0	0	0	107
7:30	0	134	24	0	1	1	0	0	1	0	0	0	0	161	19:30	1	73	10	0	1	0	0	0	0	0	0	0	0	85
7:45	0	131	16	1	1	1	0	2	5	0	0	0	0	157	19:45	0	75	5	0	0	0	0	1	2	0	0	0	0	83
8:00	0	102	17	0	2	1	0	1	2	0	0	0	0	125	20:00	0	83	4	1	0	0	0	0	0	0	0	0	0	88
8:15	0	101	9	0	3	0	0	1	6	0	0	0	0	120	20:15	0	70	4	0	1	2	0	0	0	0	0	0	0	77
8:30	0	71	16	0	4	0	0	1	2	0	0	0	0	94	20:30	0	54	8	1	0	0	0	0	0	0	0	0	0	63
8:45	0	78	18	1	6	1	0	2	2	0	0	0	0	108	20:45	0	55	4	0	1	0	0	0	1	0	0	0	0	61
9:00	0	80	12	0	3	3	0	0	2	0	0	0	0	100	21:00	3	39	4	0	0	0	0	0	1	0	0	0	0	47
9:15	0	70	11	1	6	2	0	3	3	0	0	0	0	96	21:15	0	56	0	0	0	0	0	0	0	0	0	0	0	56
9:30	0	74	13	0	10	1	0	1	4	0	0	0	0	103	21:30	0	46	6	0	0	1	0	0	0	0	0	0	0	53
9:45	0	84	17	1	4	0	0	1	1	1	0	0	0	109	21:45	0	32	1	1	0	0	0	0	1	0	0	0	0	35
10:00	1	90	17	0	3	2	0	2	5	0	0	0	0	120	22:00	0	29	2	0	0	0	0	0	0	0	0	0	0	31
10:15	0	73	15	1	6	1	0	0	8	0	0	0	0	104	22:15	0	44	2	1	0	0	0	0	0	0	0	0	0	47
10:30	0	67	17	0	2	0	0	0	5	0	0	0	0	91	22:30	0	19	0	0	0	1	0	0	1	0	0	0	0	21
10:45	0	92	15	1	4	1	0	4	5	0	0	0	0	122	22:45	0	25	2	0	0	0	0	0	1	0	0	0	0	28
11:00	0	76	13	1	6	2	0	0	5	0	0	0	0	103	23:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22
11:15	0	100	9	1	4	0	0	0	2	0	0	0	0	116	23:15	0	23	1	0	0	0	0	0	1	0	0	0	0	25
11:30	1	93	13	0	4	0	0	1	7	0	0	0	0	119	23:30	0	11	0	0	0	0	0	0	0	0	0	0	0	11
11:45	0	106	17	0	4	0	0	1	8	0	0	0	0	136	23:45	0	12	0	0	0	0	0	0	0	0	0	0	0	12
TOTAL	9	2,528	376	11	93	26	0	22	99	1	0	0	0	3,165	TOTAL	12	4,402	661	22	153	34	3	28	107	1	0	0	0	5,423

AM PEAK HOUR 7:15 AM  
AM PEAK VOLUME 585

PM PEAK HOUR 5:00 PM  
PM PEAK VOLUME 733

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	21	6,930	1,037	33	246	60	3	50	206	2	0	0	0	8,588
% OF TOTAL	0.2%	80.7%	12.1%	0.4%	2.9%	0.7%	0.0%	0.6%	2.4%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS3 Slauson west of Sorensen

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	20	4	0	2	1	0	0	1	0	0	0	0	28	12:00	0	153	46	0	14	2	0	1	10	0	1	0	0	227
0:15	0	26	4	0	1	0	0	0	2	0	0	0	0	33	12:15	1	149	16	0	12	2	0	1	4	0	0	0	0	185
0:30	0	14	4	0	2	0	0	0	2	0	0	0	0	22	12:30	1	209	43	0	15	2	0	0	10	0	0	0	0	280
0:45	0	27	2	0	2	1	0	0	0	0	0	0	0	32	12:45	0	178	30	1	13	2	1	2	5	0	0	0	0	232
1:00	0	21	2	0	0	0	0	0	1	0	0	0	0	24	13:00	0	186	38	1	17	1	0	0	8	0	0	0	0	251
1:15	0	17	1	0	1	0	0	0	0	0	0	0	0	19	13:15	0	178	43	0	22	4	0	1	6	0	1	0	0	255
1:30	0	15	4	0	0	0	0	0	1	0	0	0	0	20	13:30	2	216	48	2	11	1	0	5	6	0	0	0	0	291
1:45	0	20	3	0	0	0	0	0	0	0	0	0	0	23	13:45	4	183	62	1	7	1	0	3	3	0	1	0	0	265
2:00	0	14	6	0	0	0	0	0	1	0	0	0	0	21	14:00	4	184	39	0	13	0	0	1	6	0	0	0	0	247
2:15	0	12	4	0	1	0	0	0	1	0	0	0	0	18	14:15	0	192	44	0	16	2	0	1	4	0	0	0	0	259
2:30	0	12	1	0	0	1	0	0	1	0	0	0	0	15	14:30	1	216	39	0	11	3	0	1	7	0	0	0	0	278
2:45	1	14	2	0	0	0	0	0	1	0	0	0	0	18	14:45	2	209	45	0	7	2	1	0	4	0	0	0	0	270
3:00	0	14	4	0	1	1	0	0	0	0	0	0	0	20	15:00	0	183	56	0	15	1	0	0	5	0	0	0	0	260
3:15	0	16	2	0	0	0	0	0	2	0	0	0	0	20	15:15	0	223	60	0	15	1	0	0	10	0	0	0	0	309
3:30	0	21	5	0	1	0	0	0	2	0	0	0	0	29	15:30	1	188	47	0	11	1	0	1	8	0	0	0	0	257
3:45	0	28	9	0	2	0	0	0	2	0	0	0	0	41	15:45	1	247	57	0	6	0	0	3	3	0	1	0	0	318
4:00	0	49	17	0	0	0	0	0	1	0	0	0	0	67	16:00	0	225	32	0	12	2	0	1	1	0	0	0	0	273
4:15	0	72	10	0	1	2	0	0	1	0	0	0	0	86	16:15	1	248	43	0	15	1	0	1	6	0	0	0	0	315
4:30	0	93	9	0	0	1	0	0	5	0	0	0	0	108	16:30	0	251	51	0	9	0	0	1	3	0	0	0	0	315
4:45	0	119	18	0	0	0	0	0	3	0	0	0	0	140	16:45	0	237	39	0	14	1	0	2	5	0	0	0	0	298
5:00	0	55	9	0	2	1	0	0	1	0	0	0	0	68	17:00	3	208	44	1	6	0	0	0	5	0	0	0	0	267
5:15	0	98	10	0	2	1	0	0	4	0	0	0	0	115	17:15	1	215	43	0	11	0	0	2	2	0	0	0	0	274
5:30	1	143	33	0	3	0	0	0	4	0	0	0	0	184	17:30	2	254	44	0	12	0	0	1	3	0	0	0	0	316
5:45	0	191	29	0	1	2	0	0	7	0	0	0	0	230	17:45	2	254	44	0	6	1	0	0	5	0	0	0	0	312
6:00	1	133	20	0	7	0	0	0	6	1	0	0	0	168	18:00	1	226	34	0	4	0	0	4	4	0	0	0	0	273
6:15	0	104	25	0	5	1	0	0	4	1	0	0	0	140	18:15	0	214	31	0	6	3	0	0	1	0	0	0	0	255
6:30	0	148	25	1	4	1	0	1	3	1	0	0	0	184	18:30	0	227	23	0	6	1	0	1	5	0	0	0	0	263
6:45	3	198	34	0	7	2	0	0	3	0	1	0	0	248	18:45	0	212	23	0	3	0	0	0	4	0	1	0	0	243
7:00	0	168	25	0	4	0	0	0	5	0	0	0	0	202	19:00	0	188	21	0	2	1	0	1	2	0	0	0	0	215
7:15	0	196	27	0	4	2	0	0	7	0	0	0	0	236	19:15	2	188	32	0	3	1	0	0	2	0	0	0	0	228
7:30	0	201	42	0	15	8	0	0	5	1	0	0	0	272	19:30	0	139	17	0	1	0	0	0	0	0	0	0	0	157
7:45	0	246	41	1	9	4	0	1	9	0	0	0	0	311	19:45	1	152	17	0	2	0	0	1	4	0	0	0	0	177
8:00	0	177	43	1	7	4	1	1	6	0	1	0	0	241	20:00	0	151	13	0	6	0	0	0	0	0	0	0	0	170
8:15	0	186	32	1	9	2	0	0	10	0	0	0	0	240	20:15	0	131	21	0	1	0	0	0	0	0	0	0	0	153
8:30	1	175	22	1	7	0	0	1	8	0	0	0	0	215	20:30	2	134	9	0	1	0	0	0	1	0	0	0	0	147
8:45	0	183	30	0	13	1	0	0	8	0	0	0	0	235	20:45	0	94	14	0	1	0	0	0	3	0	0	0	0	112
9:00	1	120	34	1	15	1	0	0	7	0	0	0	0	179	21:00	0	82	12	0	3	0	0	0	0	0	0	0	0	97
9:15	0	117	36	0	17	1	0	1	4	0	0	1	0	177	21:15	0	100	8	0	1	0	0	0	2	0	0	0	0	111
9:30	0	140	33	0	7	5	0	0	6	0	0	0	0	191	21:30	1	92	9	0	0	0	0	0	2	0	0	0	0	104
9:45	0	162	33	0	16	0	0	3	5	0	0	0	0	219	21:45	0	97	13	0	2	1	0	0	3	0	0	0	0	116
10:00	1	150	29	0	9	1	0	4	11	1	0	0	0	206	22:00	0	55	8	0	2	0	0	0	0	0	0	0	0	65
10:15	0	159	29	0	13	1	0	2	14	0	0	0	0	218	22:15	1	62	6	0	0	0	0	0	0	0	0	0	0	69
10:30	0	150	31	0	8	2	0	2	5	0	1	0	0	199	22:30	0	47	8	0	0	0	0	0	2	0	0	0	0	57
10:45	0	168	34	1	15	3	0	3	5	1	0	0	0	230	22:45	1	47	8	0	0	0	0	0	2	0	0	0	0	58
11:00	0	150	32	0	15	3	0	0	10	0	0	0	0	210	23:00	0	53	7	0	0	0	0	0	0	0	0	0	0	60
11:15	0	163	37	1	15	0	0	0	9	0	0	0	0	225	23:15	0	45	5	0	1	0	0	0	1	0	0	0	0	52
11:30	0	143	36	0	12	1	0	2	9	0	1	0	0	204	23:30	0	37	5	0	1	0	0	0	0	0	0	0	0	43
11:45	0	163	43	1	10	1	0	1	9	0	0	0	0	228	23:45	0	21	3	0	1	0	0	0	1	0	0	0	0	26
TOTAL	9	5,011	965	9	265	55	1	22	211	6	5	0	0	6,559	TOTAL	35	7,780	1,400	6	337	37	2	35	168	0	5	0	0	9,805
AM PEAK HOUR AM PEAK VOLUME														7:30 AM 1,064	PM PEAK HOUR PM PEAK VOLUME														3:45 PM 1,221

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	44	12,791	2,365	15	602	92	3	57	379	6	10	0	0	16,364
% OF TOTAL	0.3%	78.2%	14.5%	0.1%	3.7%	0.6%	0.0%	0.3%	2.3%	0.0%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	93	24,147	4,446	22	1,128	152	6	102	675	12	20	0	0	30,803
% OF TOTAL	0.6%	147.6%	27.2%	0.1%	6.9%	0.9%	0.0%	0.6%	4.1%	0.1%	0.1%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS3 Slauson west of Sorensen

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	25	2	0	0	0	0	0	2	0	0	0	0	29	12:00	0	152	38	0	9	2	0	2	7	0	0	0	0	210
0:15	0	19	4	0	1	0	0	0	1	0	0	0	0	25	12:15	1	167	34	1	16	0	0	0	11	0	0	0	0	230
0:30	0	21	4	0	0	0	0	0	1	0	0	0	0	26	12:30	0	153	32	0	20	2	0	1	8	0	2	0	0	218
0:45	0	6	3	0	0	0	0	0	1	0	0	0	0	10	12:45	0	160	24	0	15	1	0	1	8	0	0	0	0	209
1:00	0	16	1	0	0	0	0	0	0	0	0	0	0	17	13:00	0	178	43	0	9	1	0	1	4	0	0	0	0	236
1:15	0	13	1	0	1	1	0	0	0	0	0	0	0	16	13:15	0	166	31	1	15	0	0	1	4	0	0	0	0	218
1:30	0	12	3	0	0	0	0	0	0	0	0	0	0	15	13:30	2	187	56	0	9	0	1	0	9	0	0	0	0	264
1:45	0	12	3	0	1	0	0	0	1	0	0	0	0	17	13:45	1	164	40	0	7	1	0	0	3	0	0	0	0	216
2:00	0	9	4	0	0	0	0	0	1	0	0	0	0	14	14:00	0	155	34	0	9	0	0	2	5	0	0	0	0	205
2:15	0	6	5	0	0	1	0	0	0	0	0	0	0	12	14:15	1	139	38	0	18	3	0	0	7	0	0	0	0	206
2:30	0	15	5	0	0	1	0	0	0	0	0	0	0	21	14:30	2	250	43	0	10	0	0	1	5	0	0	0	0	311
2:45	0	12	2	0	0	0	0	0	0	0	0	0	0	14	14:45	1	171	47	0	9	0	0	1	1	0	0	0	0	230
3:00	0	11	1	0	1	1	0	0	0	0	0	0	0	14	15:00	0	183	34	0	7	1	0	1	2	0	0	0	0	228
3:15	0	13	2	0	0	1	0	0	1	0	0	0	0	17	15:15	1	172	39	0	6	1	0	0	2	0	0	0	0	221
3:30	0	23	6	0	0	0	0	0	2	0	0	0	0	31	15:30	2	222	34	0	5	0	0	0	7	0	0	0	0	270
3:45	0	23	8	0	0	0	0	0	0	0	0	0	0	31	15:45	1	184	28	0	6	1	0	0	3	0	0	0	0	223
4:00	0	22	7	0	0	1	0	0	1	0	1	0	0	32	16:00	1	216	29	0	2	2	0	4	3	0	0	0	0	257
4:15	2	39	17	0	4	1	0	0	3	0	0	0	0	66	16:15	0	209	33	0	6	0	0	1	1	0	0	0	0	250
4:30	0	61	13	0	2	2	0	0	2	0	0	0	0	80	16:30	0	214	33	1	5	1	0	2	4	0	0	0	0	260
4:45	0	72	11	0	2	1	0	0	2	0	1	0	0	89	16:45	0	200	27	0	2	1	0	2	3	0	0	0	0	235
5:00	0	68	25	0	6	1	0	0	2	0	0	0	0	102	17:00	0	248	34	0	2	2	0	3	2	0	0	0	0	291
5:15	3	135	16	0	4	1	0	0	1	0	0	0	0	160	17:15	1	170	28	0	1	0	0	1	2	0	0	0	0	203
5:30	0	138	32	0	3	1	0	0	3	0	0	0	0	177	17:30	1	202	32	0	1	1	0	3	3	0	0	0	0	243
5:45	0	156	35	0	8	1	0	2	3	0	0	0	0	205	17:45	0	177	18	0	4	0	0	0	1	0	0	0	0	200
6:00	1	120	27	0	2	0	0	0	5	0	0	0	0	155	18:00	0	187	32	0	2	1	0	0	1	0	0	0	0	223
6:15	1	163	29	1	8	1	0	0	5	0	1	0	0	209	18:15	0	160	21	0	5	0	0	0	4	0	0	0	0	190
6:30	0	232	43	0	13	1	0	1	5	1	0	0	0	296	18:30	0	127	22	0	3	0	0	0	2	0	0	0	0	154
6:45	0	212	45	0	11	0	0	1	6	0	0	0	0	275	18:45	0	139	21	0	1	1	0	0	0	0	0	0	0	162
7:00	0	184	34	1	13	1	0	0	4	0	0	0	0	237	19:00	2	127	13	0	2	1	0	0	2	0	0	0	0	147
7:15	0	202	36	0	14	0	0	1	6	1	1	0	0	261	19:15	1	115	12	0	0	0	0	0	1	0	0	0	0	129
7:30	1	187	44	0	10	2	0	0	2	0	0	0	0	246	19:30	0	106	12	0	0	0	0	1	1	0	0	0	0	120
7:45	1	180	36	0	15	2	0	0	5	0	1	0	0	240	19:45	1	107	15	0	0	0	0	1	5	0	0	0	0	129
8:00	1	194	40	0	17	1	0	0	5	0	0	0	0	258	20:00	0	106	10	0	0	0	0	0	1	0	0	0	0	117
8:15	0	188	30	0	12	1	0	0	6	0	0	0	0	237	20:15	0	100	11	0	0	0	0	0	0	0	0	0	0	111
8:30	1	176	34	0	9	1	0	0	9	1	0	0	0	231	20:30	0	97	9	0	1	0	0	0	0	0	0	0	0	107
8:45	2	158	30	0	13	0	0	0	10	0	0	0	0	213	20:45	1	87	8	0	0	0	0	1	0	0	0	0	0	97
9:00	1	130	30	0	22	1	1	1	10	1	0	0	0	197	21:00	2	104	9	0	0	0	0	0	1	0	0	0	0	116
9:15	2	115	33	0	6	2	0	2	5	0	0	0	0	165	21:15	1	89	7	0	1	0	0	0	1	0	0	0	0	99
9:30	0	122	21	0	14	0	0	1	5	0	0	0	0	163	21:30	0	86	8	0	3	0	0	0	0	0	0	0	0	97
9:45	0	127	39	0	16	0	0	0	10	0	2	0	0	194	21:45	0	41	10	0	0	0	0	0	1	0	0	0	0	52
10:00	0	140	27	0	14	1	0	1	1	1	0	0	0	185	22:00	0	82	7	0	0	0	0	0	0	0	0	0	0	89
10:15	0	124	33	0	10	2	0	0	4	0	0	0	0	173	22:15	0	49	7	0	0	0	0	0	0	0	0	0	0	56
10:30	1	128	29	0	14	0	0	0	8	0	0	0	0	180	22:30	1	74	6	0	0	0	0	0	1	0	0	0	0	82
10:45	0	131	27	0	6	2	0	3	3	0	0	0	0	172	22:45	0	37	6	0	0	0	0	0	1	0	0	0	0	44
11:00	0	130	21	0	13	2	0	0	7	0	0	0	0	173	23:00	1	50	7	0	0	0	0	0	1	0	0	0	0	59
11:15	0	152	35	0	12	0	0	1	4	1	0	0	0	205	23:15	0	33	3	0	0	0	0	0	1	0	0	0	0	37
11:30	0	141	31	0	5	0	1	0	7	0	1	0	0	186	23:30	3	27	0	0	1	0	0	0	0	0	0	0	0	31
11:45	4	201	31	2	12	3	0	1	7	0	0	0	0	261	23:45	0	23	1	0	0	0	0	0	1	0	0	0	0	25
TOTAL	21	4,764	995	4	314	37	2	15	166	6	8	0	0	6,332	TOTAL	28	6,592	1,086	3	212	23	1	30	130	0	2	0	0	8,107
AM PEAK HOUR														6:30 AM	PM PEAK HOUR														4:15 PM
AM PEAK VOLUME														1,069	PM PEAK VOLUME														1,036

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	49	####	2,081	7	526	60	3	45	296	6	10	0	0	14,439
% OF TOTAL	0.3%	78.6%	14.4%	0.0%	3.6%	0.4%	0.0%	0.3%	2.1%	0.0%	0.1%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS4 Santa Fe Springs north of Los Nietos

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	10	5	0	0	0	0	0	0	0	0	0	0	15	12:00	0	119	34	0	9	2	0	2	3	0	0	0	0	169
0:15	0	10	1	0	1	0	0	0	1	0	0	0	0	13	12:15	0	93	19	1	11	2	0	0	5	1	0	0	0	132
0:30	0	3	2	0	0	0	0	0	0	0	0	0	0	5	12:30	0	100	37	0	17	3	0	1	1	0	0	0	0	159
0:45	0	10	1	0	0	0	0	0	0	0	0	0	0	11	12:45	0	100	22	0	10	1	0	2	6	0	0	0	0	141
1:00	0	9	0	0	0	0	0	0	0	1	0	0	0	10	13:00	0	94	16	1	13	0	0	1	3	0	0	0	0	128
1:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	13:15	0	109	31	0	9	0	0	2	6	0	0	0	0	157
1:30	0	4	2	0	0	0	0	0	0	0	0	0	0	6	13:30	0	128	25	0	13	0	0	0	2	0	0	0	0	168
1:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7	13:45	0	134	31	0	11	0	0	3	2	0	0	0	0	181
2:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10	14:00	0	117	36	1	11	1	0	1	0	0	0	0	0	167
2:15	0	8	0	0	1	0	0	0	0	1	0	0	0	10	14:15	0	108	32	0	5	0	0	3	4	0	0	0	0	152
2:30	0	4	3	0	0	0	0	0	0	0	0	0	0	7	14:30	1	153	45	0	4	1	0	1	0	0	0	0	0	205
2:45	0	3	4	0	0	0	0	0	1	0	0	0	0	8	14:45	0	141	36	0	15	1	0	3	3	0	0	0	0	199
3:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9	15:00	0	156	30	1	13	2	0	2	4	0	0	0	0	208
3:15	0	7	0	0	0	1	0	0	0	0	0	0	0	8	15:15	1	138	42	0	14	1	0	2	2	0	0	0	0	200
3:30	1	6	3	0	0	0	0	0	0	0	0	0	0	10	15:30	0	185	47	0	8	1	0	4	1	0	0	0	0	246
3:45	0	18	2	0	0	0	0	0	0	0	0	0	0	20	15:45	0	145	50	1	10	0	0	2	2	0	0	0	0	210
4:00	0	16	2	0	0	0	0	0	0	0	0	0	0	18	16:00	0	188	35	1	12	0	0	4	5	0	0	0	0	245
4:15	0	18	1	1	0	0	0	0	0	0	0	0	0	20	16:15	1	179	40	0	9	0	0	1	2	0	0	0	0	232
4:30	0	27	4	0	1	1	0	0	0	0	0	0	0	33	16:30	0	222	42	1	14	0	0	3	1	0	0	0	0	283
4:45	0	46	14	0	1	0	0	0	2	0	0	0	0	63	16:45	0	198	45	1	13	0	0	1	1	0	0	0	0	259
5:00	0	25	6	1	1	0	0	0	0	2	0	0	0	35	17:00	2	219	45	0	10	0	0	1	1	0	0	0	0	278
5:15	0	40	9	0	0	0	0	0	0	0	0	0	0	49	17:15	0	187	22	0	15	2	0	1	0	0	0	0	0	227
5:30	1	43	18	1	1	0	0	0	2	0	0	0	0	66	17:30	2	189	36	0	6	0	0	4	2	0	0	0	0	239
5:45	0	90	26	0	3	0	0	0	0	0	0	0	0	119	17:45	1	147	21	1	0	0	0	2	1	0	0	0	0	173
6:00	0	46	8	0	2	0	0	0	0	1	0	0	0	57	18:00	0	109	21	0	2	0	0	0	0	0	0	0	0	132
6:15	0	49	14	1	2	0	0	0	1	0	0	0	0	67	18:15	1	117	20	0	1	0	0	0	4	0	0	0	0	143
6:30	0	71	16	0	10	0	0	1	0	0	0	0	0	98	18:30	0	125	23	0	3	0	0	0	0	0	0	0	0	151
6:45	1	105	16	0	8	0	0	1	2	0	0	0	0	133	18:45	0	87	13	1	3	0	0	1	0	0	0	0	0	105
7:00	2	88	20	1	5	0	0	0	0	0	0	0	0	116	19:00	0	104	9	0	3	0	0	1	2	0	0	0	0	119
7:15	0	87	14	0	4	1	0	0	0	3	0	0	0	109	19:15	2	71	9	0	4	0	0	1	0	0	0	0	0	87
7:30	0	94	22	0	4	1	0	0	1	0	0	0	0	122	19:30	0	88	14	0	3	0	0	0	0	0	0	0	0	105
7:45	1	133	25	0	5	0	0	0	3	0	0	0	0	167	19:45	2	71	11	1	5	0	0	0	1	0	1	0	0	92
8:00	1	141	20	1	6	0	0	1	3	0	0	0	0	173	20:00	1	70	10	0	0	0	0	3	0	0	0	0	0	84
8:15	0	116	20	0	16	1	0	0	1	0	0	0	0	154	20:15	0	53	11	0	1	0	0	0	0	0	0	0	0	65
8:30	0	106	22	0	5	2	0	1	2	0	0	0	0	138	20:30	0	49	10	0	1	1	0	0	0	0	0	0	0	61
8:45	0	117	22	1	9	1	0	2	4	0	0	0	0	156	20:45	0	55	5	0	2	0	0	0	1	0	0	0	0	63
9:00	1	76	25	1	8	3	0	0	2	0	0	0	0	116	21:00	0	44	7	0	1	0	0	0	1	0	0	0	0	53
9:15	0	83	36	0	17	0	0	0	3	0	0	0	0	139	21:15	0	50	5	0	2	0	0	0	0	0	0	0	0	57
9:30	0	85	28	1	11	0	0	2	4	0	0	0	0	131	21:30	0	51	4	0	3	0	0	0	0	0	0	0	0	58
9:45	0	87	14	0	10	2	0	2	1	0	0	0	0	116	21:45	0	43	3	0	0	0	0	0	1	0	0	0	0	47
10:00	0	77	28	1	11	2	0	1	6	0	0	0	0	126	22:00	0	34	3	0	0	0	0	0	2	0	0	0	0	39
10:15	0	69	17	0	5	3	0	4	6	0	0	0	0	104	22:15	0	30	8	0	0	0	0	0	0	0	0	0	0	38
10:30	0	85	38	0	8	0	0	0	4	0	0	0	0	135	22:30	0	24	7	0	0	0	0	0	1	0	0	0	0	32
10:45	0	91	34	1	8	2	0	2	2	0	0	0	0	140	22:45	0	24	2	0	1	0	0	0	0	0	0	0	0	27
11:00	0	90	24	1	6	1	0	2	3	0	0	0	0	127	23:00	1	21	5	0	1	0	0	0	0	0	0	0	0	28
11:15	0	88	24	0	15	0	0	2	4	0	0	0	0	133	23:15	0	20	2	0	0	0	0	0	0	0	0	0	0	22
11:30	0	107	30	1	13	0	0	1	1	0	0	0	0	153	23:30	0	20	1	0	0	0	0	0	0	0	0	0	0	21
11:45	1	98	22	0	8	0	0	3	3	0	0	0	0	135	23:45	0	18	1	0	1	1	0	0	0	0	0	0	0	21
TOTAL	9	2,609	646	13	205	21	0	26	69	0	0	0	0	3,598	TOTAL	15	4,927	1,023	11	289	19	0	52	70	1	1	0	0	6,408
AM PEAK HOUR AM PEAK VOLUME														7:45 AM 632	PM PEAK HOUR PM PEAK VOLUME														4:15 PM 1,052

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	24	7,536	1,669	24	494	40	0	78	139	1	1	0	0	10,006
% OF TOTAL	0.2%	75.3%	16.7%	0.2%	4.9%	0.4%	0.0%	0.8%	1.4%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	50	14,819	3,272	41	1,018	98	0	164	362	2	1	0	0	19,827
% OF TOTAL	0.5%	148.1%	32.7%	0.4%	10.2%	1.0%	0.0%	1.6%	3.6%	0.0%	0.0%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS4 Santa Fe Springs north of Los Nietos

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	19	1	0	0	0	0	0	1	0	0	0	0	21	12:00	0	96	21	0	3	0	0	4	0	0	0	0	0	124
0:15	0	8	1	0	2	0	0	0	0	0	0	0	0	11	12:15	0	101	32	1	9	1	0	1	8	0	0	0	0	153
0:30	0	16	3	0	0	0	0	0	0	0	0	0	0	19	12:30	1	80	29	0	13	1	0	2	2	0	0	0	0	128
0:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8	12:45	0	67	28	0	12	0	0	4	4	0	0	0	0	115
1:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	13:00	1	134	35	1	14	2	0	1	4	0	0	0	0	192
1:15	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:15	1	85	22	0	8	0	0	3	6	0	0	0	0	125
1:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:30	1	147	34	0	10	1	0	1	2	0	0	0	0	196
1:45	0	9	2	0	0	0	0	0	0	0	0	0	0	11	13:45	1	105	30	0	15	2	0	1	2	0	0	0	0	156
2:00	0	2	3	0	0	0	0	0	0	1	0	0	0	6	14:00	0	96	22	1	15	1	0	0	4	0	0	0	0	139
2:15	0	7	3	0	0	0	0	0	0	1	0	0	0	11	14:15	0	122	33	0	6	1	0	1	5	0	0	0	0	168
2:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10	14:30	1	186	44	0	6	0	0	3	3	0	0	0	0	243
2:45	0	3	3	0	3	0	0	0	0	0	0	0	0	9	14:45	0	143	36	0	10	3	0	3	3	0	0	0	0	198
3:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8	15:00	0	145	29	1	15	1	0	4	6	0	0	0	0	201
3:15	0	10	2	0	0	0	0	0	0	1	0	0	0	13	15:15	0	139	41	0	6	2	0	8	5	0	0	0	0	201
3:30	0	15	1	0	0	0	0	0	0	4	0	0	0	20	15:30	0	181	33	0	14	4	0	0	2	0	0	0	0	234
3:45	0	26	3	0	0	0	0	0	0	1	0	0	0	30	15:45	1	153	46	0	10	0	0	0	3	0	0	0	0	213
4:00	0	17	2	0	0	0	0	0	0	1	0	0	0	20	16:00	0	167	29	0	10	0	0	1	0	0	0	0	0	207
4:15	0	19	6	0	3	0	0	0	0	2	0	0	0	30	16:15	1	137	22	0	8	0	0	4	5	0	0	0	0	177
4:30	0	37	8	0	1	0	0	0	0	1	0	0	0	47	16:30	0	188	25	0	6	2	0	1	0	0	0	0	0	222
4:45	0	35	7	0	1	0	0	0	0	4	0	0	0	47	16:45	0	157	24	1	4	1	0	3	1	0	0	0	0	191
5:00	0	34	7	0	3	1	0	0	0	2	0	0	0	47	17:00	0	203	32	0	6	0	0	3	0	0	0	0	0	244
5:15	0	43	8	0	0	0	0	0	0	3	0	0	0	54	17:15	3	156	36	0	7	1	0	2	0	0	0	0	0	205
5:30	0	52	20	0	2	0	0	0	0	3	0	0	0	77	17:30	0	175	22	0	2	0	0	0	0	0	0	0	0	199
5:45	0	89	21	0	1	1	0	1	0	0	0	0	0	113	17:45	1	144	25	1	3	0	0	2	3	0	0	0	0	179
6:00	0	59	20	1	6	1	0	0	0	5	0	0	0	92	18:00	0	133	19	0	6	0	0	1	1	0	0	0	0	160
6:15	2	79	20	0	4	2	0	0	0	4	0	0	0	111	18:15	0	124	29	0	3	0	0	3	2	0	0	0	0	161
6:30	0	94	14	0	11	0	0	1	5	0	0	0	0	125	18:30	0	99	14	0	1	0	0	1	2	0	0	0	0	117
6:45	0	109	21	1	9	1	0	0	3	1	0	0	0	145	18:45	1	89	22	1	4	0	0	0	6	0	0	0	0	123
7:00	0	112	29	0	7	0	0	1	3	0	0	0	0	152	19:00	0	95	12	0	1	0	0	0	5	0	0	0	0	113
7:15	0	117	33	0	11	0	0	0	5	0	0	0	0	166	19:15	2	69	11	0	3	2	0	0	2	0	0	0	0	89
7:30	0	124	29	0	6	1	0	0	0	2	0	0	0	162	19:30	2	78	8	1	1	0	0	2	0	0	0	0	0	92
7:45	2	164	31	1	6	1	0	0	2	0	0	0	0	207	19:45	0	51	4	0	2	1	0	1	0	0	0	0	0	59
8:00	1	109	21	0	5	0	0	1	4	0	0	0	0	141	20:00	0	63	12	1	0	0	0	0	0	0	0	0	0	76
8:15	0	82	15	0	7	4	0	0	5	0	0	0	0	113	20:15	0	54	7	0	1	0	0	2	0	0	0	0	0	64
8:30	1	95	20	0	16	2	0	0	2	0	0	0	0	136	20:30	0	57	5	0	0	0	0	0	0	0	0	0	0	62
8:45	0	54	14	0	7	1	0	3	2	0	0	0	0	81	20:45	0	48	3	1	0	0	0	2	2	0	0	0	0	56
9:00	0	72	27	1	40	1	0	0	5	0	0	0	0	146	21:00	0	58	4	0	1	0	0	0	0	0	0	0	0	63
9:15	0	63	30	0	13	2	0	0	3	0	0	0	0	111	21:15	0	42	11	0	1	1	0	0	0	0	0	0	0	55
9:30	0	72	44	1	8	3	0	2	5	0	0	0	0	135	21:30	0	44	3	0	0	0	0	0	1	0	0	0	0	48
9:45	0	82	29	0	10	0	0	1	6	0	0	0	0	128	21:45	0	27	2	0	1	0	0	0	1	0	0	0	0	31
10:00	0	82	18	0	13	1	0	2	3	0	0	0	0	119	22:00	0	44	4	0	0	0	0	0	1	0	0	0	0	49
10:15	0	86	30	0	16	0	0	1	6	0	0	0	0	139	22:15	0	36	1	0	0	0	0	0	2	0	0	0	0	39
10:30	0	83	20	1	14	0	0	1	7	0	0	0	0	126	22:30	0	31	4	0	0	0	0	0	0	0	0	0	0	35
10:45	0	91	19	0	15	1	0	2	2	0	0	0	0	130	22:45	0	26	3	0	0	0	0	0	1	0	0	0	0	30
11:00	0	74	34	0	7	2	0	1	12	0	0	0	0	130	23:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22
11:15	0	81	23	1	11	1	0	2	6	0	0	0	0	125	23:15	0	21	2	0	1	0	0	0	1	0	0	0	0	25
11:30	0	78	15	0	14	4	0	1	4	0	0	0	0	116	23:30	0	14	1	0	0	0	0	0	0	0	0	0	0	15
11:45	3	101	24	0	14	1	0	2	2	0	0	0	0	147	23:45	0	15	4	0	0	0	0	0	0	0	0	0	0	19
TOTAL	9	2,639	685	7	286	31	0	22	128	1	0	0	0	3,808	TOTAL	17	4,644	918	10	238	27	0	64	95	0	0	0	0	6,013
AM PEAK HOUR														7:00 AM	PM PEAK HOUR														4:30 PM
AM PEAK VOLUME														687	PM PEAK VOLUME														862

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	26	7,283	1,603	17	524	58	0	86	223	1	0	0	0	9,821
% OF TOTAL	0.3%	74.2%	16.3%	0.2%	5.3%	0.6%	0.0%	0.9%	2.3%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS5 Telegraph west of Orr & Day

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	41	2	0	1	0	0	0	1	0	0	0	0	45	12:00	0	269	33	0	12	4	0	0	7	2	0	0	0	327
0:15	0	38	1	0	2	1	0	1	7	0	0	0	0	50	12:15	1	199	18	1	16	3	0	0	11	0	0	0	0	249
0:30	0	35	0	0	0	0	0	0	1	0	1	0	0	37	12:30	0	248	24	0	24	2	0	2	12	0	0	0	0	312
0:45	0	41	2	0	1	0	0	0	10	0	0	0	0	54	12:45	2	244	26	0	15	1	0	2	19	0	0	0	0	309
1:00	0	18	1	0	0	0	0	0	2	0	0	0	0	21	13:00	1	245	25	1	23	2	0	1	7	0	0	0	0	305
1:15	0	19	1	0	0	0	0	0	4	0	0	0	0	24	13:15	0	261	19	0	20	4	1	1	9	0	1	0	0	316
1:30	0	38	5	0	3	2	0	0	5	0	0	0	0	53	13:30	2	241	20	0	18	3	0	0	13	1	0	0	0	298
1:45	0	33	2	0	1	2	0	0	5	0	1	0	0	44	13:45	1	305	14	0	27	2	0	1	11	0	0	0	0	361
2:00	0	55	3	0	1	1	0	0	6	0	2	0	0	68	14:00	3	206	15	1	24	1	0	0	14	1	0	0	0	265
2:15	0	43	2	0	0	1	0	0	3	0	0	0	0	49	14:15	0	255	14	0	22	4	0	0	14	0	0	0	0	309
2:30	0	28	0	0	2	1	0	1	5	0	0	0	0	37	14:30	1	250	16	1	18	6	2	0	8	0	0	0	0	302
2:45	0	19	1	0	1	0	0	0	3	0	0	0	0	24	14:45	1	291	6	0	20	0	1	1	15	0	0	0	0	335
3:00	0	33	2	0	3	3	0	0	2	0	0	0	0	43	15:00	0	224	19	0	15	1	1	0	4	0	0	0	0	264
3:15	0	46	4	0	2	2	0	0	3	0	0	0	0	57	15:15	0	250	23	1	13	1	0	0	9	0	0	0	0	297
3:30	0	38	7	0	4	0	0	0	5	0	1	0	0	55	15:30	3	268	15	0	21	4	0	0	6	0	0	0	0	317
3:45	0	60	10	0	6	1	0	0	3	0	0	0	0	80	15:45	1	272	16	1	15	1	1	0	5	0	0	0	0	312
4:00	0	45	5	0	4	0	0	0	4	1	0	0	0	59	16:00	3	281	21	0	12	4	0	0	12	0	0	0	0	333
4:15	1	78	16	0	6	1	0	0	11	0	0	0	0	113	16:15	3	310	24	1	14	3	0	0	7	1	0	0	0	363
4:30	0	89	16	0	5	2	0	0	12	0	0	0	0	124	16:30	3	302	8	0	11	1	0	1	4	0	0	0	0	330
4:45	0	114	25	0	9	4	0	0	9	0	0	0	0	161	16:45	0	293	18	0	12	0	0	0	2	0	0	0	0	325
5:00	1	111	31	0	12	0	0	0	12	0	0	0	0	167	17:00	0	285	12	0	12	1	0	0	3	0	0	0	0	313
5:15	1	179	52	1	25	3	0	0	11	2	0	0	0	274	17:15	1	282	16	1	4	2	0	0	4	0	0	0	0	310
5:30	1	176	45	1	27	1	0	0	11	0	0	0	0	262	17:30	1	279	9	0	7	0	0	1	8	1	0	0	0	306
5:45	2	205	34	0	31	7	0	0	6	1	0	0	0	286	17:45	0	260	10	0	10	1	0	0	8	1	0	0	0	290
6:00	1	149	10	1	10	4	1	0	6	0	0	0	0	182	18:00	1	303	11	0	12	4	0	0	8	0	1	0	0	340
6:15	1	255	27	0	13	1	2	1	7	0	1	0	0	308	18:15	2	277	7	0	11	0	0	1	2	0	0	0	0	300
6:30	1	301	21	1	10	1	0	0	7	1	0	0	0	343	18:30	0	293	19	0	4	2	0	1	4	0	0	0	0	323
6:45	0	371	20	1	9	2	0	0	7	0	0	0	0	410	18:45	1	282	14	0	6	1	0	1	4	0	2	0	0	311
7:00	2	278	22	0	4	3	1	0	8	0	0	0	0	318	19:00	1	247	11	1	12	1	0	0	6	0	0	0	0	279
7:15	0	343	28	1	8	2	0	0	7	0	1	0	0	390	19:15	3	209	3	0	3	0	0	0	5	0	0	0	0	223
7:30	0	327	24	0	12	1	1	0	5	0	0	0	0	370	19:30	1	205	15	0	6	0	0	0	4	0	0	0	0	231
7:45	2	344	21	1	9	0	0	0	5	0	0	0	0	382	19:45	2	225	7	0	14	4	0	0	4	1	0	0	0	257
8:00	0	322	28	1	12	3	0	0	9	0	0	0	0	375	20:00	0	197	10	1	4	0	0	0	7	2	0	0	0	221
8:15	1	311	25	1	15	3	0	2	6	0	0	0	0	364	20:15	0	212	12	0	1	1	0	0	1	0	1	0	0	228
8:30	1	255	27	0	13	0	0	0	10	1	0	0	0	307	20:30	0	155	4	0	3	1	0	0	4	0	0	0	0	167
8:45	0	263	20	0	13	1	0	0	7	0	1	0	0	305	20:45	1	142	6	2	1	0	0	0	4	0	0	0	0	156
9:00	1	235	23	1	14	0	0	1	11	0	0	0	0	286	21:00	0	143	10	0	1	2	0	0	2	0	0	0	0	158
9:15	0	210	21	0	19	2	0	0	12	0	0	0	0	264	21:15	0	154	7	0	4	3	0	0	3	0	1	0	0	172
9:30	0	202	18	1	20	1	0	0	19	0	0	0	0	261	21:30	2	135	2	0	5	1	0	0	6	0	0	0	0	151
9:45	0	238	13	1	17	2	0	0	7	1	0	0	0	279	21:45	0	126	10	1	2	0	0	0	6	0	0	0	0	145
10:00	0	227	24	0	23	3	0	0	11	1	1	0	0	290	22:00	2	97	6	0	1	2	0	0	3	0	0	0	0	111
10:15	0	222	19	0	21	2	0	0	17	1	0	0	0	282	22:15	0	97	4	0	0	1	0	0	6	0	0	0	0	108
10:30	1	213	28	1	25	0	0	0	14	0	2	0	0	284	22:30	0	101	3	0	1	2	0	1	3	0	0	0	0	111
10:45	2	220	21	0	18	3	0	0	10	0	1	0	0	275	22:45	1	99	3	1	2	0	0	0	2	0	0	0	0	108
11:00	0	208	25	1	23	2	0	2	8	0	0	0	0	269	23:00	0	72	5	0	2	0	0	0	4	0	0	0	0	83
11:15	0	188	38	0	22	4	0	0	11	1	0	0	0	264	23:15	1	74	1	0	2	1	0	0	4	0	1	0	0	84
11:30	1	242	25	0	13	3	0	3	12	0	0	0	0	299	23:30	1	41	1	0	1	0	0	0	1	0	0	0	0	45
11:45	0	204	26	1	19	4	0	1	13	0	2	0	0	270	23:45	0	69	2	0	0	0	0	0	3	0	0	0	0	74
TOTAL	20	7,710	821	15	508	79	5	12	370	10	14	0	0	9,564	TOTAL	46	10,275	594	14	483	77	6	14	308	10	7	0	0	11,834
AM PEAK HOUR AM PEAK VOLUME														7:15 AM 1,517	PM PEAK HOUR PM PEAK VOLUME														4:00 PM 1,351

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	66	17,985	1,415	29	991	156	11	26	678	20	21	0	0	21,398
% OF TOTAL	0.3%	84.0%	6.6%	0.1%	4.6%	0.7%	0.1%	0.1%	3.2%	0.1%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	140	39,707	2,947	61	2,076	335	16	49	###	39	44	0	0	46,927
% OF TOTAL	0.7%	185.6%	13.8%	0.3%	9.7%	1.6%	0.1%	0.2%	7.1%	0.2%	0.2%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS5 Telegraph west of Orr & Day

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	60	2	0	1	0	0	0	6	0	0	0	0	69	12:00	0	342	25	1	27	2	1	1	7	0	0	0	0	406
0:15	0	43	0	0	0	0	0	0	3	0	0	0	0	46	12:15	0	268	23	0	15	2	0	1	12	1	0	0	0	322
0:30	0	49	0	0	1	0	0	0	5	0	3	0	0	58	12:30	2	352	25	1	29	4	0	0	11	0	1	0	0	425
0:45	1	24	1	0	1	1	0	0	6	0	0	0	0	34	12:45	0	299	27	0	21	3	0	0	12	0	0	0	0	362
1:00	0	32	2	0	0	4	0	0	6	0	0	0	0	44	13:00	1	304	26	1	20	1	0	0	18	0	1	0	0	372
1:15	0	21	2	0	2	0	0	0	13	1	0	0	0	39	13:15	2	318	19	0	18	1	0	0	16	0	0	0	0	374
1:30	0	29	2	0	1	1	0	0	3	1	0	0	0	37	13:30	1	367	23	1	14	0	0	0	9	0	1	0	0	416
1:45	0	24	0	0	1	0	0	0	7	0	0	0	0	32	13:45	1	347	21	0	22	3	0	0	15	1	0	0	0	410
2:00	0	38	5	0	2	0	0	0	7	0	0	0	0	52	14:00	0	320	21	1	21	2	0	0	10	0	0	0	0	375
2:15	0	32	2	0	1	0	0	0	4	0	1	0	0	40	14:15	2	372	37	0	14	5	1	1	13	0	1	0	0	446
2:30	0	42	4	0	1	1	0	0	6	0	0	0	0	54	14:30	3	455	9	1	12	1	0	1	9	1	0	0	0	492
2:45	0	44	9	0	0	1	0	0	4	0	0	0	0	58	14:45	3	387	18	0	16	3	0	0	12	0	0	0	0	439
3:00	0	35	4	0	0	1	0	1	7	0	0	0	0	48	15:00	0	402	25	1	20	2	0	0	12	0	0	0	0	462
3:15	0	44	6	0	3	0	0	0	6	0	0	0	0	59	15:15	3	353	19	1	13	5	0	0	13	0	0	0	0	407
3:30	0	70	3	0	1	0	0	0	9	0	0	0	0	83	15:30	1	391	14	0	10	2	0	1	6	0	0	0	0	425
3:45	0	83	13	0	1	0	0	0	6	0	0	0	0	103	15:45	1	394	15	1	10	4	0	0	9	0	0	0	0	434
4:00	0	48	3	0	2	2	0	0	1	0	0	0	0	56	16:00	1	414	12	0	11	0	0	0	3	0	0	0	0	441
4:15	0	84	20	0	2	3	0	1	1	0	0	0	0	111	16:15	1	430	16	1	8	2	0	0	6	0	0	0	0	464
4:30	0	169	28	0	4	2	0	0	5	0	0	0	0	208	16:30	0	460	17	0	14	2	0	0	3	0	0	0	0	496
4:45	0	185	42	0	8	1	0	0	6	1	0	0	0	243	16:45	0	453	16	1	11	1	0	0	6	0	0	0	0	488
5:00	0	116	34	1	9	1	0	0	3	0	0	0	0	164	17:00	2	440	11	1	5	0	0	0	5	1	1	0	0	466
5:15	0	170	38	1	12	0	0	2	4	0	1	0	0	228	17:15	2	446	9	1	5	0	0	0	8	0	0	0	0	471
5:30	2	287	46	0	9	3	0	0	5	0	0	0	0	352	17:30	1	366	6	0	1	1	0	0	2	0	0	0	0	377
5:45	2	319	52	0	12	0	0	0	6	0	0	0	0	391	17:45	3	391	12	1	2	1	0	0	6	0	0	0	0	416
6:00	0	204	17	0	26	5	0	1	14	0	0	0	0	267	18:00	1	381	16	1	10	1	0	0	7	1	0	0	0	418
6:15	0	260	15	0	36	8	0	0	10	1	0	0	0	330	18:15	2	283	8	1	6	0	0	1	4	0	1	0	0	306
6:30	1	287	29	1	24	7	0	0	16	1	0	0	0	366	18:30	0	329	15	0	4	2	0	0	8	0	1	0	0	359
6:45	0	305	28	0	25	5	1	0	15	0	0	0	0	379	18:45	3	261	9	0	8	3	0	2	6	0	0	0	0	292
7:00	0	280	30	0	27	4	0	0	14	0	0	0	0	355	19:00	1	282	10	1	4	1	0	0	11	0	0	0	0	310
7:15	2	290	34	0	20	2	0	0	8	1	0	0	0	357	19:15	2	242	7	0	4	1	0	1	7	1	1	0	0	266
7:30	0	305	31	1	18	3	0	0	14	0	0	0	0	372	19:30	0	228	4	0	8	1	0	0	8	0	0	0	0	249
7:45	2	285	36	0	24	6	0	1	14	0	0	0	0	368	19:45	1	234	9	1	3	3	0	0	8	0	0	0	0	259
8:00	1	316	31	0	24	5	0	0	11	1	0	0	0	389	20:00	1	223	3	0	4	0	0	0	7	0	0	0	0	238
8:15	0	274	36	1	22	6	0	1	10	0	1	0	0	351	20:15	2	154	2	0	2	2	0	0	7	0	0	0	0	169
8:30	0	263	42	0	29	2	0	0	8	0	0	0	0	344	20:30	0	183	6	0	0	0	0	0	4	0	0	0	0	193
8:45	0	238	29	1	20	6	0	0	12	0	0	0	0	306	20:45	0	169	4	1	0	1	0	0	4	0	0	0	0	179
9:00	1	229	25	1	28	2	2	0	14	0	1	0	0	303	21:00	1	167	6	0	0	1	0	0	12	1	1	0	0	189
9:15	1	233	23	0	31	5	0	0	18	0	0	0	0	311	21:15	2	142	3	0	2	1	0	0	7	0	0	0	0	157
9:30	2	222	21	0	24	1	0	0	15	0	0	0	0	285	21:30	3	123	1	1	2	0	0	0	5	0	0	0	0	135
9:45	0	255	14	1	26	5	0	0	19	0	2	0	0	322	21:45	2	121	3	0	5	2	0	0	2	0	0	0	0	135
10:00	0	242	21	0	26	1	0	1	11	1	0	0	0	303	22:00	0	138	3	0	0	0	0	0	8	0	0	0	0	149
10:15	0	274	22	0	26	2	0	1	14	1	1	0	0	341	22:15	3	124	3	0	6	1	0	0	5	0	1	0	0	143
10:30	0	248	19	1	15	1	0	0	10	2	0	0	0	296	22:30	1	117	4	1	1	0	0	0	7	0	1	0	0	132
10:45	3	236	25	0	27	2	0	1	13	0	0	0	0	307	22:45	0	85	3	0	0	1	0	0	6	0	0	0	0	95
11:00	1	292	30	0	24	1	0	0	22	0	0	0	0	370	23:00	0	73	5	0	1	0	0	0	6	0	0	0	0	85
11:15	0	261	25	1	24	1	0	0	18	0	1	0	0	331	23:15	0	65	2	0	1	0	0	0	7	0	0	0	0	75
11:30	0	289	27	0	31	4	0	2	17	0	0	0	0	370	23:30	0	65	3	1	1	1	0	0	1	0	0	0	0	72
11:45	0	261	28	0	23	5	0	2	11	1	0	0	0	331	23:45	0	65	1	0	0	0	0	0	8	0	1	0	0	75
TOTAL	19	8,397	956	10	674	110	3	14	457	12	11	0	0	10,663	TOTAL	55	###	576	22	411	69	2	9	378	7	12	0	0	14,866
AM PEAK HOUR														7:15 AM	PM PEAK HOUR														4:30 PM
AM PEAK VOLUME														1,486	PM PEAK VOLUME														1,921

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	74	###	1,532	32	1,085	179	5	23	835	19	23	0	0	25,529
% OF TOTAL	0.3%	85.1%	6.0%	0.1%	4.3%	0.7%	0.0%	0.1%	3.3%	0.1%	0.1%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS6 Telegraph east of Pioneer

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	15	0	0	1	0	0	0	2	0	0	0	0	18	12:00	0	213	17	0	10	4	0	0	9	2	1	0	0	256
0:15	0	18	2	0	1	0	0	1	6	0	0	0	0	28	12:15	1	201	8	1	19	2	1	0	9	0	1	0	0	243
0:30	0	12	1	0	2	0	0	0	3	0	1	0	0	19	12:30	0	202	16	1	23	2	0	1	13	1	0	0	0	259
0:45	0	12	2	0	0	0	0	0	9	0	0	0	0	23	12:45	0	212	9	0	19	3	0	0	16	0	0	0	0	259
1:00	0	19	0	0	2	2	0	0	6	0	0	0	0	29	13:00	0	229	29	1	15	2	1	0	9	1	0	0	0	287
1:15	0	16	0	0	4	0	0	0	8	0	0	0	0	28	13:15	0	197	20	0	15	2	1	0	8	0	1	0	0	244
1:30	0	17	0	0	1	0	0	1	4	0	0	0	0	23	13:30	1	197	11	1	15	1	0	0	13	1	0	0	0	240
1:45	0	15	0	0	0	0	0	0	5	0	0	0	0	20	13:45	1	257	18	1	18	1	0	0	14	0	0	0	0	310
2:00	0	23	1	0	1	0	0	0	5	1	0	0	0	31	14:00	0	175	18	1	22	1	1	0	12	0	0	0	0	230
2:15	0	25	0	0	1	0	0	0	6	0	0	0	0	32	14:15	2	209	19	0	22	3	0	0	18	0	0	0	0	273
2:30	0	33	0	0	1	0	0	0	3	0	1	0	0	38	14:30	0	204	13	2	15	5	1	0	9	0	0	0	0	249
2:45	0	45	0	0	0	0	0	0	4	1	0	0	0	50	14:45	1	237	14	0	16	1	0	0	17	0	0	0	0	286
3:00	0	25	3	0	0	1	0	0	9	0	0	0	0	38	15:00	0	208	13	0	17	0	1	1	3	0	0	0	0	243
3:15	0	43	1	0	2	0	0	0	6	0	0	0	0	52	15:15	0	193	11	1	17	1	1	0	9	0	1	0	0	234
3:30	0	61	2	0	0	0	0	0	8	0	0	0	0	71	15:30	1	217	12	1	17	2	0	1	3	0	0	0	0	254
3:45	0	83	0	0	0	0	0	0	7	0	0	0	0	90	15:45	1	268	13	1	20	1	0	0	9	0	0	0	0	313
4:00	0	63	2	0	1	3	0	0	2	0	0	0	0	71	16:00	1	221	13	0	15	0	0	0	9	0	0	0	0	259
4:15	0	82	2	0	5	2	0	0	0	0	0	0	0	91	16:15	1	252	18	1	10	3	0	0	9	0	0	0	0	294
4:30	0	150	2	0	3	2	0	0	7	0	0	0	0	164	16:30	0	228	15	1	9	1	0	0	4	0	0	0	0	258
4:45	1	172	6	0	3	1	0	0	5	1	0	0	0	189	16:45	1	250	13	0	13	0	0	0	4	0	0	0	0	281
5:00	1	121	5	1	2	2	0	0	4	0	0	0	0	136	17:00	0	213	10	0	8	1	0	0	2	0	0	0	0	234
5:15	0	160	6	1	7	0	0	0	4	0	1	0	0	179	17:15	1	235	9	1	7	2	0	0	3	0	0	0	0	258
5:30	2	291	15	0	3	4	1	0	8	0	0	0	0	324	17:30	0	215	5	1	8	1	0	0	7	1	1	0	0	239
5:45	2	305	7	0	10	0	0	0	6	0	0	0	0	330	17:45	1	210	10	0	11	1	0	0	6	1	1	0	0	241
6:00	1	179	3	1	5	3	1	0	6	0	0	0	0	199	18:00	1	215	4	2	10	4	0	1	9	0	1	0	0	247
6:15	1	208	14	0	10	1	2	0	4	0	1	0	0	241	18:15	0	211	7	0	9	0	0	0	5	0	0	0	0	232
6:30	1	259	14	2	10	2	0	0	6	1	0	0	0	295	18:30	2	186	8	1	2	2	0	0	4	0	0	0	0	205
6:45	0	314	18	1	6	1	0	0	6	0	0	0	0	346	18:45	1	188	8	0	6	1	0	0	5	0	1	0	0	210
7:00	2	225	12	0	7	4	0	0	9	0	0	0	0	259	19:00	0	177	0	1	8	1	0	0	5	0	0	0	0	192
7:15	0	302	19	1	6	2	0	0	4	0	1	0	0	335	19:15	1	168	6	0	5	0	0	0	5	0	0	0	0	185
7:30	0	312	17	2	10	1	1	0	6	0	0	0	0	349	19:30	0	136	4	0	7	0	0	0	3	0	0	0	0	150
7:45	2	331	12	1	12	2	0	0	6	0	0	0	0	366	19:45	2	140	3	0	11	6	0	0	2	0	0	0	0	164
8:00	0	289	13	0	17	3	0	0	8	0	0	0	0	330	20:00	0	125	3	1	3	0	0	0	7	2	0	0	0	141
8:15	1	258	17	2	10	4	0	0	9	0	0	0	0	301	20:15	0	102	2	0	1	1	0	0	2	0	1	0	0	109
8:30	1	218	17	1	16	0	0	0	8	2	0	0	0	263	20:30	0	91	2	0	1	1	0	0	4	0	0	0	0	99
8:45	0	210	13	0	11	2	0	0	5	0	1	0	0	242	20:45	0	101	6	1	1	0	0	0	3	0	0	0	0	112
9:00	1	185	9	1	20	1	0	0	13	0	0	0	0	230	21:00	0	70	2	1	2	1	0	0	3	0	0	0	0	79
9:15	0	204	16	0	15	1	0	0	9	0	0	0	0	245	21:15	0	83	2	0	4	2	0	0	3	0	1	0	0	95
9:30	0	161	12	2	17	1	0	0	18	0	0	0	0	211	21:30	1	93	3	0	3	1	0	0	4	1	0	0	0	106
9:45	0	192	10	1	12	1	0	0	7	1	0	0	0	224	21:45	0	59	2	1	2	0	0	0	5	0	0	0	0	69
10:00	0	198	15	0	23	2	0	0	8	1	1	0	0	248	22:00	0	60	3	0	1	2	0	0	3	0	0	0	0	69
10:15	0	143	12	0	19	4	0	0	17	1	0	0	0	196	22:15	0	57	1	0	0	1	0	0	4	0	0	0	0	63
10:30	0	165	14	3	18	1	0	0	9	1	2	0	0	213	22:30	0	47	3	0	1	2	0	0	4	0	0	0	0	57
10:45	1	187	15	0	15	0	0	0	14	0	1	0	0	233	22:45	1	50	0	1	3	0	0	0	1	0	0	0	0	56
11:00	1	184	17	1	22	0	0	1	11	0	0	0	0	237	23:00	0	43	4	0	1	0	0	0	3	0	0	0	0	51
11:15	0	155	19	0	19	5	0	2	12	1	0	0	0	213	23:15	2	42	0	0	3	1	0	0	4	0	1	0	0	53
11:30	0	186	9	1	17	3	0	1	10	0	0	0	0	227	23:30	1	29	0	0	0	0	0	0	1	0	0	0	0	31
11:45	0	210	22	1	16	5	0	0	16	1	1	0	0	272	23:45	0	37	0	0	1	0	0	0	3	0	0	0	0	41
TOTAL	18	7,081	396	23	383	66	5	6	348	12	11	0	0	8,349	TOTAL	25	7,753	407	24	446	66	7	4	307	10	11	0	0	9,060
AM PEAK HOUR AM PEAK VOLUME														7:15 AM 1,380	PM PEAK HOUR PM PEAK VOLUME														3:45 PM 1,124

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	43	14,834	803	47	829	132	12	10	655	22	22	0	0	17,409
% OF TOTAL	0.2%	85.2%	4.6%	0.3%	4.8%	0.8%	0.1%	0.1%	3.8%	0.1%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	85	28,853	1,958	95	1,753	314	21	14	###	35	53	0	0	34,639
% OF TOTAL	0.5%	165.7%	11.2%	0.5%	10.1%	1.8%	0.1%	0.1%	8.4%	0.2%	0.3%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS6 Telegraph east of Pioneer

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	30	0	0	1	0	0	0	5	0	0	0	0	36	12:00	0	224	25	2	21	2	0	0	7	0	0	0	0	281
0:15	0	31	0	0	0	0	0	0	4	0	0	0	0	35	12:15	0	200	17	0	17	2	0	0	7	1	1	0	0	245
0:30	0	36	1	0	4	2	0	0	4	0	3	0	0	50	12:30	0	205	22	1	19	4	0	0	9	0	1	0	0	261
0:45	1	13	1	0	0	0	0	0	6	0	0	0	0	21	12:45	0	211	24	0	20	3	0	0	16	0	0	0	0	274
1:00	0	13	0	0	0	0	0	0	2	0	0	0	0	15	13:00	2	176	24	2	20	2	0	0	15	0	3	0	0	244
1:15	0	20	0	0	1	0	0	0	7	0	0	0	0	28	13:15	0	255	15	0	18	1	0	0	14	0	0	0	0	303
1:30	0	26	0	0	2	3	0	0	5	0	1	0	0	37	13:30	1	218	15	2	15	0	0	0	11	0	2	0	0	264
1:45	0	29	0	0	1	2	0	0	6	0	0	0	0	38	13:45	1	204	18	0	18	2	0	0	11	0	0	0	0	254
2:00	0	46	0	0	1	1	0	0	6	0	1	0	0	55	14:00	0	250	24	2	17	2	0	0	7	0	0	0	0	302
2:15	0	28	1	0	0	1	0	0	3	0	0	0	0	33	14:15	1	246	25	0	9	4	1	0	13	1	0	0	0	300
2:30	0	17	0	0	2	1	0	0	5	0	0	0	0	25	14:30	4	323	24	1	11	2	0	0	8	1	0	0	0	374
2:45	0	9	1	0	2	1	0	0	1	0	0	0	0	14	14:45	1	248	20	0	17	1	0	0	11	0	0	0	0	298
3:00	0	23	0	0	2	2	0	0	3	0	0	0	0	30	15:00	0	228	12	2	17	2	0	0	9	0	0	0	0	270
3:15	0	14	1	0	3	2	0	0	3	0	0	0	0	23	15:15	0	209	12	1	6	2	0	1	13	0	0	0	0	244
3:30	0	25	1	0	4	1	0	0	6	0	1	0	0	38	15:30	1	305	19	0	7	2	0	0	8	0	0	0	0	342
3:45	0	44	1	0	2	2	0	0	1	0	0	0	0	50	15:45	1	239	18	1	7	4	0	0	8	0	0	0	0	278
4:00	0	45	1	0	7	0	0	0	10	1	0	0	0	64	16:00	2	312	14	1	14	1	0	0	3	0	0	0	0	347
4:15	0	45	3	0	2	1	0	0	10	0	1	0	0	62	16:15	1	244	18	1	6	2	0	0	4	0	0	0	0	276
4:30	1	66	3	1	5	2	0	0	10	0	0	0	0	88	16:30	0	367	27	0	9	1	0	0	5	0	0	0	0	409
4:45	0	79	5	0	7	4	0	0	11	0	0	0	0	106	16:45	0	260	19	2	4	1	0	1	4	0	0	0	0	291
5:00	1	73	6	0	7	1	0	0	13	0	0	0	0	101	17:00	1	343	16	0	7	0	0	0	5	1	1	0	0	374
5:15	1	129	16	0	19	6	0	0	9	0	0	0	0	180	17:15	1	288	14	2	1	0	0	0	7	0	0	0	0	313
5:30	1	103	9	1	7	3	0	0	13	0	0	0	0	137	17:30	2	341	16	1	3	2	0	0	5	0	0	0	0	370
5:45	0	109	7	0	19	5	0	0	8	1	0	0	0	149	17:45	3	239	16	0	0	2	0	0	6	0	0	0	0	266
6:00	0	121	17	0	17	3	1	0	13	0	0	0	0	172	18:00	0	218	14	1	4	0	0	0	2	0	0	0	0	239
6:15	0	159	14	2	33	10	1	0	11	1	1	0	0	232	18:15	1	202	11	1	8	2	0	0	7	0	1	0	0	233
6:30	0	162	17	0	17	7	1	0	13	1	0	0	0	218	18:30	0	214	13	0	2	0	0	0	6	0	1	0	0	236
6:45	0	159	26	1	12	3	0	0	14	0	0	0	0	215	18:45	2	179	6	0	3	2	0	0	10	0	0	0	0	202
7:00	0	172	19	1	20	5	0	0	10	0	0	0	0	227	19:00	1	169	7	2	8	1	0	0	8	0	0	0	0	196
7:15	0	211	30	2	17	1	0	0	13	0	1	0	0	275	19:15	2	151	6	0	2	1	0	0	8	0	2	0	0	172
7:30	0	209	24	0	11	3	0	0	13	0	0	0	0	260	19:30	0	135	3	0	4	1	0	0	9	0	0	0	0	152
7:45	0	194	29	0	17	4	0	0	10	0	0	0	0	254	19:45	1	151	5	1	1	2	0	0	7	0	0	0	0	168
8:00	0	211	28	1	19	2	1	0	9	1	0	0	0	272	20:00	0	127	2	0	2	1	0	0	6	0	0	0	0	138
8:15	0	201	28	1	17	5	0	0	9	0	0	0	0	261	20:15	0	114	2	0	3	0	0	0	7	0	0	0	0	126
8:30	0	167	27	0	20	3	1	0	8	0	0	0	0	226	20:30	0	117	4	0	1	0	0	0	6	0	0	0	0	128
8:45	0	160	29	0	17	5	0	0	11	0	0	0	0	222	20:45	0	111	2	1	2	0	0	0	4	0	0	0	0	120
9:00	1	154	32	3	26	3	2	0	14	0	1	0	0	236	21:00	0	104	6	0	0	1	0	0	10	0	1	0	0	122
9:15	1	126	15	0	27	3	0	0	17	0	0	0	0	189	21:15	2	108	2	0	2	1	0	0	5	0	0	0	0	120
9:30	0	147	22	1	21	0	1	0	12	0	0	0	0	204	21:30	0	101	2	1	3	1	0	0	6	0	1	0	0	115
9:45	0	174	10	0	23	4	0	0	15	0	1	0	0	227	21:45	0	68	5	0	2	1	0	0	2	0	0	0	0	78
10:00	1	143	22	0	25	1	0	0	7	1	1	0	0	201	22:00	0	96	3	0	0	0	0	0	6	0	0	0	0	105
10:15	0	151	21	2	18	2	0	1	10	1	0	0	0	206	22:15	0	94	2	0	4	2	0	0	7	0	1	0	0	110
10:30	0	143	20	0	16	1	0	0	11	1	1	0	0	193	22:30	0	84	1	1	0	1	0	0	5	0	1	0	0	93
10:45	1	165	23	0	30	1	0	0	11	0	1	0	0	232	22:45	0	61	1	0	0	1	0	0	6	0	0	0	0	69
11:00	1	157	18	1	24	2	0	0	21	0	0	0	0	224	23:00	0	62	2	0	1	0	0	0	7	0	0	0	0	72
11:15	0	163	24	1	22	4	0	0	19	0	0	0	0	233	23:15	0	50	2	0	0	0	0	7	0	0	0	0	0	59
11:30	0	179	21	0	23	3	0	1	14	0	0	0	0	241	23:30	0	46	1	1	1	1	0	0	0	0	0	0	0	50
11:45	1	183	25	0	18	4	0	0	12	1	0	0	0	244	23:45	0	58	1	0	0	0	0	0	8	0	1	0	0	68
TOTAL	11	5,064	598	18	588	119	8	2	448	9	14	0	0	6,879	TOTAL	31	8,955	557	30	336	63	1	2	355	4	17	0	0	10,351
AM PEAK HOUR														7:15 AM	PM PEAK HOUR														4:30 PM
AM PEAK VOLUME														1,061	PM PEAK VOLUME														1,387

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	42	####	1,155	48	924	182	9	4	803	13	31	0	0	17,230
% OF TOTAL	0.2%	81.4%	6.7%	0.3%	5.4%	1.1%	0.1%	0.0%	4.7%	0.1%	0.2%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS7 Orr & Day south of Telegraph

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13	12:00	1	89	12	0	2	1	0	0	0	0	0	0	0	105
0:15	0	12	1	0	0	0	0	0	0	0	0	0	0	13	12:15	1	84	10	1	0	0	1	0	1	0	0	0	0	98
0:30	0	10	0	0	1	0	0	0	0	0	0	0	0	11	12:30	0	105	15	2	6	0	0	0	0	0	0	0	0	128
0:45	0	6	1	0	1	0	0	0	0	0	0	0	0	8	12:45	0	89	11	1	4	0	0	0	0	0	0	0	0	105
1:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	13:00	0	86	11	0	5	0	0	0	1	0	0	0	0	103
1:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3	13:15	0	85	12	0	2	0	0	0	0	0	0	0	0	99
1:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8	13:30	0	99	13	2	2	0	0	0	0	0	0	0	0	116
1:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7	13:45	1	77	15	1	2	0	0	0	1	0	0	0	0	97
2:00	0	3	3	0	0	0	0	0	0	0	0	0	0	6	14:00	0	95	14	2	5	1	0	0	0	0	0	0	0	117
2:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11	14:15	0	97	28	0	4	0	0	0	0	0	0	0	0	129
2:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6	14:30	0	50	7	0	1	0	0	0	0	0	0	0	0	58
2:45	0	5	4	0	0	0	0	0	0	0	0	0	0	9	14:45	0	114	12	0	1	0	0	0	0	0	0	0	0	127
3:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10	15:00	0	108	11	1	1	0	0	0	0	0	0	0	0	121
3:15	0	8	3	0	0	0	0	0	0	0	0	0	0	11	15:15	3	81	12	0	3	0	0	0	2	0	0	0	0	101
3:30	0	10	2	0	0	0	0	0	0	0	0	0	0	12	15:30	0	90	13	2	0	0	0	0	2	0	0	0	0	107
3:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12	15:45	0	110	17	0	3	0	0	0	2	0	0	0	0	132
4:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14	16:00	0	100	13	1	1	0	0	0	0	0	0	0	0	115
4:15	1	13	3	0	0	0	0	0	0	0	0	0	0	17	16:15	1	104	17	0	2	0	0	0	0	0	0	0	0	124
4:30	0	15	2	0	0	0	0	0	0	0	0	0	0	17	16:30	0	107	13	2	2	0	0	0	0	0	0	0	0	124
4:45	0	18	4	0	0	0	0	0	0	0	0	0	0	22	16:45	2	96	13	0	0	0	0	0	1	0	0	0	0	112
5:00	1	29	7	0	2	0	0	0	0	0	0	0	0	39	17:00	0	106	12	1	3	1	0	0	0	0	0	0	0	123
5:15	0	25	10	0	4	0	0	0	0	0	0	0	0	39	17:15	1	141	13	0	1	0	0	0	0	0	0	0	0	156
5:30	0	30	13	0	5	0	0	0	0	0	0	0	0	48	17:30	2	130	16	2	0	1	0	0	0	0	0	0	0	151
5:45	0	21	12	1	4	0	0	0	0	0	0	0	0	38	17:45	3	133	16	0	1	0	0	0	0	0	0	0	0	153
6:00	0	27	11	0	3	0	0	0	0	0	0	0	0	41	18:00	1	82	15	1	0	0	0	0	0	0	0	0	0	99
6:15	0	38	13	1	2	1	0	0	1	0	0	0	0	56	18:15	0	98	13	1	0	0	0	0	0	0	0	0	0	112
6:30	0	74	15	1	1	1	0	0	0	0	0	0	0	92	18:30	0	80	11	1	1	0	0	0	0	0	0	0	0	93
6:45	0	53	12	0	0	1	0	0	0	0	0	0	0	66	18:45	0	62	13	0	1	0	0	0	0	0	0	0	0	76
7:00	0	51	9	0	1	0	0	0	0	0	0	0	0	61	19:00	0	99	11	1	1	0	0	0	0	0	0	0	0	112
7:15	2	73	12	0	2	2	0	0	0	0	0	0	0	91	19:15	0	81	8	0	1	0	0	0	0	0	0	0	0	90
7:30	0	60	11	1	3	0	0	0	0	0	0	0	0	75	19:30	0	69	7	1	1	0	0	0	0	0	0	0	0	78
7:45	1	88	8	2	2	0	0	0	0	0	0	0	0	101	19:45	0	61	7	0	1	0	0	0	0	0	0	0	0	69
8:00	1	86	6	0	3	0	0	0	0	0	0	0	0	96	20:00	1	62	5	0	0	0	0	0	0	0	0	0	0	68
8:15	0	85	14	1	0	0	0	0	1	0	0	0	0	101	20:15	1	46	2	0	0	0	0	0	0	0	0	0	0	49
8:30	0	65	6	3	3	0	0	0	0	0	0	0	0	77	20:30	0	43	3	0	0	0	0	0	0	0	0	0	0	46
8:45	0	70	9	1	3	0	0	0	0	0	0	0	0	83	20:45	0	51	3	1	0	0	0	0	0	0	0	0	0	55
9:00	0	47	9	1	0	0	0	0	1	0	0	0	0	58	21:00	0	39	4	0	0	0	0	0	0	0	0	0	0	43
9:15	0	58	14	2	1	0	0	0	0	0	0	0	0	75	21:15	0	30	1	1	0	0	0	0	0	0	0	0	0	32
9:30	0	51	8	0	1	0	0	0	0	0	0	0	0	60	21:30	1	25	2	0	0	0	0	0	0	0	0	0	0	28
9:45	0	56	11	1	2	0	0	0	0	0	0	0	0	70	21:45	0	25	4	0	0	0	0	0	0	0	0	0	0	29
10:00	0	66	8	0	3	0	0	0	1	0	0	0	0	78	22:00	0	33	0	0	0	0	0	0	0	0	0	0	0	33
10:15	0	73	13	1	3	0	0	0	0	0	0	0	0	90	22:15	1	18	4	0	0	0	0	0	0	0	0	0	0	23
10:30	0	61	8	1	1	0	0	0	0	0	0	0	0	71	22:30	1	16	0	0	0	0	0	0	0	0	0	0	0	17
10:45	0	85	9	0	1	0	0	0	0	0	0	0	0	95	22:45	0	20	3	0	0	0	0	0	0	0	0	0	0	23
11:00	0	60	16	1	1	0	0	0	0	0	0	0	0	78	23:00	0	16	1	0	0	0	0	0	0	0	0	0	0	17
11:15	0	68	7	1	3	0	0	0	0	0	0	0	0	79	23:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11
11:30	0	65	8	1	1	0	0	0	0	0	0	0	0	75	23:30	0	17	2	0	0	0	0	0	0	0	0	0	0	19
11:45	2	76	14	1	1	0	0	0	0	0	0	0	0	94	23:45	0	11	0	0	0	0	0	0	0	0	0	0	0	11
TOTAL	8	1,824	322	21	58	5	0	0	4	0	0	0	0	2,242	TOTAL	21	3,471	445	25	57	4	1	0	10	0	0	0	0	4,034
AM PEAK HOUR AM PEAK VOLUME														7:45 AM 375	PM PEAK HOUR PM PEAK VOLUME														5:00 PM 583

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	29	5,295	767	46	115	9	1	0	14	0	0	0	0	6,276
% OF TOTAL	0.5%	84.4%	12.2%	0.7%	1.8%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	52	9,641	1,408	92	232	18	2	0	21	0	0	0	0	11,466
% OF TOTAL	0.8%	153.6%	22.4%	1.5%	3.7%	0.3%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS7 Orr & Day south of Telegraph

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11	12:00	0	64	4	2	2	0	0	0	0	0	0	0	0	72
0:15	0	10	0	0	0	0	0	0	0	0	0	0	0	10	12:15	0	49	11	1	1	0	0	0	0	0	0	0	0	62
0:30	0	9	2	0	0	0	0	0	0	0	0	0	0	11	12:30	0	71	5	1	3	0	0	0	0	0	0	0	0	80
0:45	0	12	1	0	0	0	0	0	0	0	0	0	0	13	12:45	1	65	9	0	1	0	0	0	0	0	0	0	0	76
1:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4	13:00	2	59	7	2	7	0	0	0	0	0	0	0	0	77
1:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	13:15	0	63	10	0	2	0	0	0	0	0	0	0	0	75
1:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:30	0	69	17	2	1	0	0	0	0	0	0	0	0	89
1:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3	13:45	0	69	14	0	2	0	0	0	0	0	0	0	0	85
2:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7	14:00	0	66	14	2	1	0	0	0	0	0	0	0	0	83
2:15	0	6	0	0	0	0	0	0	1	0	0	0	0	7	14:15	0	68	12	0	1	0	0	0	0	0	0	0	0	81
2:30	0	4	2	0	0	0	0	0	0	0	0	0	0	6	14:30	0	101	10	1	4	0	0	0	0	0	0	0	0	116
2:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2	14:45	0	85	15	0	3	1	0	0	0	0	0	0	0	104
3:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	15:00	0	90	18	2	2	0	0	0	1	0	0	0	0	113
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:15	1	93	15	0	0	0	0	1	0	0	0	0	0	110
3:30	0	3	2	0	0	0	0	0	0	0	0	0	0	5	15:30	1	108	25	1	6	1	0	0	0	0	0	0	0	142
3:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6	15:45	0	96	9	0	1	0	0	0	0	0	0	0	0	106
4:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14	16:00	3	102	19	0	6	0	0	0	0	0	0	0	0	130
4:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3	16:15	1	111	10	1	1	0	0	0	0	0	0	0	0	124
4:30	0	12	0	0	0	0	0	0	0	0	0	0	0	12	16:30	3	100	7	1	0	0	0	0	0	0	0	0	0	111
4:45	1	15	1	0	0	0	0	0	0	0	0	0	0	17	16:45	0	109	9	1	0	0	0	0	0	0	0	0	0	119
5:00	1	12	7	0	0	0	0	0	0	0	0	0	0	20	17:00	0	118	22	0	0	0	0	0	0	0	0	0	0	140
5:15	0	9	4	0	1	0	0	0	0	0	0	0	0	14	17:15	1	102	17	2	2	0	0	0	1	0	0	0	0	125
5:30	0	12	5	0	0	0	0	0	0	0	0	0	0	17	17:30	0	94	11	0	3	0	0	0	0	0	0	0	0	108
5:45	0	18	6	0	3	0	0	0	0	0	0	0	0	27	17:45	0	74	11	2	2	0	0	0	0	0	0	0	0	89
6:00	0	21	6	0	4	0	0	0	0	0	0	0	0	31	18:00	0	95	19	1	1	0	0	0	0	0	0	0	0	116
6:15	2	17	2	1	4	0	1	0	1	0	0	0	0	28	18:15	2	97	12	1	1	0	0	0	0	0	0	0	0	113
6:30	0	31	4	0	1	0	0	0	0	0	0	0	0	36	18:30	0	73	18	0	2	0	0	0	0	0	0	0	0	93
6:45	0	35	13	0	6	2	0	0	0	0	0	0	0	56	18:45	0	60	9	1	0	0	0	0	0	0	0	0	0	70
7:00	0	41	5	0	2	1	0	0	0	0	0	0	0	49	19:00	0	59	6	0	1	0	0	0	0	0	0	0	0	66
7:15	0	55	5	0	5	2	0	0	0	0	0	0	0	67	19:15	1	52	8	1	1	0	0	0	0	0	0	0	0	63
7:30	0	52	7	1	3	1	0	0	0	0	0	0	0	64	19:30	0	51	10	1	0	0	0	0	0	0	0	0	0	62
7:45	0	64	9	1	4	0	0	0	2	0	0	0	0	80	19:45	0	42	2	0	0	0	0	0	0	0	0	0	0	44
8:00	0	74	7	1	2	0	0	0	0	0	0	0	0	84	20:00	0	46	4	0	0	0	0	0	0	0	0	0	0	50
8:15	0	56	5	3	1	0	0	0	0	0	0	0	0	65	20:15	0	53	3	1	1	0	0	0	0	0	0	0	0	58
8:30	0	45	7	0	1	0	0	0	0	0	0	0	0	53	20:30	0	52	2	0	0	0	0	0	0	0	0	0	0	54
8:45	0	43	2	0	0	0	0	0	0	0	0	0	0	45	20:45	1	35	2	1	0	0	0	0	0	0	0	0	0	39
9:00	0	36	8	2	3	0	0	0	0	0	0	0	0	49	21:00	0	40	9	0	0	0	0	0	0	0	0	0	0	49
9:15	1	44	9	0	2	0	0	0	0	0	0	0	0	56	21:15	0	35	5	0	0	0	0	0	0	0	0	0	0	40
9:30	0	51	12	1	2	0	0	0	0	0	0	0	0	66	21:30	0	29	1	0	1	0	0	0	0	0	0	0	0	31
9:45	0	48	7	1	0	1	0	0	0	0	0	0	0	57	21:45	0	29	2	1	0	0	0	0	0	0	0	0	0	32
10:00	0	57	9	0	2	0	0	0	0	0	0	0	0	68	22:00	0	23	4	0	0	0	0	0	0	0	0	0	0	27
10:15	1	34	8	2	2	0	0	0	0	0	0	0	0	47	22:15	0	20	7	0	0	0	0	0	0	0	0	0	0	27
10:30	0	60	4	0	1	0	0	0	0	0	0	0	0	65	22:30	0	26	3	1	0	0	0	0	0	0	0	0	0	30
10:45	0	66	12	0	2	0	0	0	0	0	0	0	0	80	22:45	0	17	2	0	0	0	0	0	0	0	0	0	0	19
11:00	0	60	5	2	4	0	0	0	0	0	0	0	0	71	23:00	0	21	2	0	0	0	0	0	0	0	0	0	0	23
11:15	0	50	4	0	2	0	0	0	0	0	0	0	0	56	23:15	0	13	0	0	0	0	0	0	0	0	0	0	0	13
11:30	0	66	7	1	0	0	0	0	0	0	0	0	0	74	23:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
11:45	0	46	12	0	0	0	0	0	0	0	0	0	0	58	23:45	0	16	0	0	0	0	0	0	0	0	0	0	0	16
TOTAL	6	1,328	209	16	58	7	1	0	4	0	0	0	0	1,629	TOTAL	17	3,018	432	30	59	2	0	0	3	0	0	0	0	3,561

AM PEAK HOUR 7:15 AM  
AM PEAK VOLUME 295

PM PEAK HOUR 3:30 PM  
PM PEAK VOLUME 502

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	23	4,346	641	46	117	9	1	0	7	0	0	0	0	5,190
% OF TOTAL	0.4%	83.7%	12.4%	0.9%	2.3%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS8 Norwalk north of Bell Ranch

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	11	0	0	1	1	0	0	2	0	0	0	0	15	12:00	0	59	28	0	12	4	0	2	4	1	0	0	0	110
0:15	0	6	3	0	0	0	0	0	1	0	0	0	0	10	12:15	0	53	17	0	6	1	0	1	7	0	0	0	0	85
0:30	0	2	1	0	1	0	0	0	0	0	0	0	0	4	12:30	0	79	19	0	13	3	0	1	12	0	0	0	0	127
0:45	0	6	1	0	0	0	0	0	3	0	0	0	0	10	12:45	1	65	16	0	13	2	0	1	12	0	0	0	0	110
1:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7	13:00	0	71	21	0	16	2	0	2	8	0	0	0	0	120
1:15	0	2	0	0	0	1	0	0	2	0	0	0	0	5	13:15	0	75	18	0	12	4	0	1	9	0	0	0	0	119
1:30	0	6	1	0	0	0	0	0	0	0	0	0	0	7	13:30	0	92	32	0	11	0	0	4	5	0	0	0	0	144
1:45	0	3	2	0	0	0	0	0	0	0	0	0	0	5	13:45	0	76	22	0	13	3	0	2	6	0	0	0	0	122
2:00	0	11	4	0	0	0	0	0	1	0	0	0	0	16	14:00	0	60	17	0	6	2	0	1	2	0	0	0	0	88
2:15	0	10	2	0	0	0	0	0	0	0	0	0	0	12	14:15	0	90	30	0	12	3	0	3	9	0	0	0	0	147
2:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	14:30	1	107	34	0	13	1	0	5	3	0	0	0	0	164
2:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7	14:45	0	86	24	0	12	3	0	3	8	0	0	0	0	136
3:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8	15:00	1	116	32	0	14	0	0	1	5	0	0	0	0	169
3:15	0	6	1	0	1	1	0	0	0	0	0	0	0	9	15:15	0	97	23	0	8	5	0	5	2	0	0	0	0	140
3:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5	15:30	1	134	25	0	11	3	0	3	5	0	0	0	0	182
3:45	0	6	1	0	2	1	0	1	1	0	0	0	0	12	15:45	2	95	18	0	8	2	0	4	3	0	0	0	0	132
4:00	0	8	2	0	1	1	0	0	2	0	0	0	0	14	16:00	0	145	23	0	7	3	0	4	4	0	0	0	0	186
4:15	0	8	6	0	1	1	0	0	0	0	0	0	0	16	16:15	0	116	22	0	7	2	0	2	5	0	0	0	0	154
4:30	0	15	2	0	1	0	0	0	1	0	0	0	0	19	16:30	1	152	33	0	10	4	0	1	5	0	0	0	0	206
4:45	0	20	6	0	1	0	0	0	3	0	0	0	0	30	16:45	1	121	23	0	3	0	0	5	0	1	0	0	0	154
5:00	0	20	5	0	0	0	0	2	0	0	0	0	0	27	17:00	2	161	21	0	3	5	0	4	3	0	0	0	0	199
5:15	0	14	0	0	2	4	0	1	3	0	0	0	0	24	17:15	1	119	15	0	1	2	0	2	0	0	0	0	0	140
5:30	0	16	10	0	4	1	0	0	3	0	0	0	0	34	17:30	0	106	20	0	1	1	0	3	2	0	0	0	0	133
5:45	1	28	9	0	2	2	0	0	7	0	0	0	0	49	17:45	0	90	14	0	1	0	0	3	3	0	0	0	0	111
6:00	0	25	5	0	0	3	0	1	6	0	0	0	0	40	18:00	0	94	16	0	5	1	0	2	1	0	0	0	0	119
6:15	0	18	8	0	5	5	0	1	2	1	0	0	0	40	18:15	0	64	16	0	5	2	0	2	3	0	0	0	0	92
6:30	0	24	10	0	5	3	0	0	4	0	0	0	0	46	18:30	0	63	14	0	3	1	0	0	5	0	0	0	0	86
6:45	0	44	10	0	11	6	0	1	1	0	0	0	0	73	18:45	0	58	8	0	2	1	0	4	4	0	0	0	0	77
7:00	0	32	6	0	9	2	0	0	9	0	0	0	0	58	19:00	0	49	14	0	2	0	0	2	1	0	0	0	0	68
7:15	1	42	13	0	6	2	0	0	3	0	0	0	0	67	19:15	0	75	12	0	1	3	0	2	2	0	0	0	0	95
7:30	1	52	17	0	4	5	0	0	3	0	0	0	0	82	19:30	0	48	2	0	2	1	0	1	0	0	0	0	0	54
7:45	0	54	22	0	7	4	0	2	3	0	0	0	0	92	19:45	0	35	6	0	1	0	0	0	2	0	0	0	0	44
8:00	0	48	16	0	3	5	0	0	7	0	0	0	0	79	20:00	0	32	7	0	3	0	0	2	1	0	0	0	0	45
8:15	0	60	16	0	11	6	0	1	6	0	0	0	0	100	20:15	0	29	4	0	0	0	0	0	2	0	0	0	0	35
8:30	0	42	12	0	8	7	0	1	7	0	0	0	0	77	20:30	0	36	6	0	0	1	0	0	1	0	0	0	0	44
8:45	0	55	12	0	12	3	0	1	2	0	0	0	0	85	20:45	0	20	3	0	0	1	0	0	1	0	0	0	0	25
9:00	0	60	11	0	6	3	0	1	1	0	0	0	0	82	21:00	0	36	4	0	0	0	0	1	0	0	0	0	0	41
9:15	1	50	21	0	11	1	0	1	5	0	0	0	0	90	21:15	0	17	2	0	0	0	0	1	1	0	0	0	0	21
9:30	0	56	20	0	16	3	0	2	6	0	0	0	0	103	21:30	0	23	1	0	0	0	0	2	2	0	0	0	0	28
9:45	0	40	21	0	10	2	0	1	4	0	0	0	0	78	21:45	0	14	4	0	2	0	0	2	1	0	0	0	0	23
10:00	1	30	15	0	9	4	0	2	8	0	0	0	0	69	22:00	0	26	4	0	1	1	0	0	2	0	0	0	0	34
10:15	0	44	12	0	17	7	0	4	4	0	1	0	0	89	22:15	0	15	1	0	0	0	0	0	1	0	0	0	0	17
10:30	0	47	15	0	15	1	0	0	6	0	0	0	0	84	22:30	0	29	3	0	0	1	0	0	2	0	0	0	0	35
10:45	0	58	22	0	10	2	0	0	8	0	0	0	0	100	22:45	0	7	3	0	2	0	0	0	0	0	0	0	0	12
11:00	0	56	21	0	15	1	0	3	6	0	0	0	0	102	23:00	0	15	1	0	0	0	0	0	1	0	0	0	0	17
11:15	0	60	19	0	10	3	0	2	8	0	0	0	0	102	23:15	0	11	1	0	0	0	0	0	1	0	0	0	0	13
11:30	0	60	29	0	6	7	0	4	5	1	0	0	0	112	23:30	0	12	2	0	0	1	0	0	0	0	0	0	0	15
11:45	0	68	28	0	21	2	0	3	1	0	0	0	0	123	23:45	0	9	1	0	0	1	0	0	1	0	0	0	0	12
TOTAL	5	1,350	440	0	244	100	0	35	145	2	1	0	0	2,322	TOTAL	11	3,182	682	0	242	70	0	84	157	2	0	0	0	4,430
AM PEAK HOUR AM PEAK VOLUME														11:00 AM 439	PM PEAK HOUR PM PEAK VOLUME														4:15 PM 713

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	16	4,532	1,122	0	486	170	0	119	302	4	1	0	0	6,752
% OF TOTAL	0.2%	67.1%	16.6%	0.0%	7.2%	2.5%	0.0%	1.8%	4.5%	0.1%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	28	9,585	2,283	2	980	366	0	233	740	8	4	0	0	14,229
% OF TOTAL	0.4%	142.0%	33.8%	0.0%	14.5%	5.4%	0.0%	3.5%	11.0%	0.1%	0.1%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS8 Norwalk north of Bell Ranch

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	7	0	0	0	0	0	0	1	0	0	0	0	8	12:00	0	67	20	0	18	1	0	2	10	0	0	0	0	118
0:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	12:15	0	53	15	0	9	3	0	0	4	0	0	0	0	84
0:30	0	2	1	0	0	0	0	0	1	0	0	0	0	4	12:30	1	80	30	0	15	2	0	2	10	0	0	0	0	140
0:45	0	7	1	0	0	1	0	0	2	0	0	0	0	11	12:45	0	58	28	0	18	2	0	3	4	0	0	0	0	113
1:00	0	2	0	0	0	1	0	0	1	0	0	0	0	4	13:00	0	93	22	0	10	3	0	4	8	1	0	0	0	141
1:15	0	6	0	0	0	1	0	0	0	0	0	0	0	7	13:15	0	81	9	1	15	4	0	1	9	0	0	0	0	120
1:30	0	1	2	0	0	0	0	0	2	0	0	0	0	5	13:30	0	67	30	0	10	3	0	2	7	0	0	0	0	119
1:45	0	4	2	0	0	0	0	1	0	0	0	0	0	7	13:45	0	77	17	0	7	5	0	2	4	0	0	0	0	112
2:00	0	4	2	0	0	1	0	0	2	0	0	0	0	9	14:00	0	45	21	0	11	2	0	2	10	0	0	0	0	91
2:15	0	1	0	0	1	1	0	0	1	0	0	0	0	4	14:15	0	106	31	0	16	4	0	1	10	0	0	0	0	168
2:30	0	5	1	0	0	3	0	0	2	0	0	0	0	11	14:30	1	86	23	0	6	4	0	2	11	0	0	0	0	133
2:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12	14:45	0	96	22	0	8	3	0	4	9	0	0	0	0	142
3:00	0	5	3	0	0	0	0	0	1	0	0	0	0	9	15:00	1	89	29	0	14	1	0	2	5	0	0	0	0	141
3:15	0	13	2	0	0	1	0	0	2	0	0	0	0	18	15:15	2	69	26	0	11	7	0	3	9	0	0	0	0	127
3:30	0	11	1	0	0	1	0	0	1	0	0	0	0	14	15:30	0	82	22	0	8	2	0	3	5	0	0	0	0	122
3:45	1	16	9	0	0	0	0	0	1	0	0	0	0	27	15:45	0	95	25	0	12	3	0	2	8	0	0	0	0	145
4:00	0	17	6	0	0	0	0	0	1	0	0	0	0	24	16:00	0	112	20	0	8	6	0	1	8	0	0	0	0	155
4:15	0	23	5	0	2	0	0	0	1	0	0	0	0	31	16:15	0	96	21	0	11	3	0	3	6	0	0	0	0	140
4:30	0	29	8	0	2	1	0	0	3	0	0	0	0	43	16:30	0	117	31	0	10	2	0	3	9	1	0	0	0	173
4:45	0	41	4	0	3	0	0	0	1	0	0	0	0	49	16:45	0	80	18	0	7	3	0	4	2	0	0	0	0	114
5:00	0	26	8	0	2	1	0	0	5	0	0	0	0	42	17:00	0	149	17	0	5	1	0	5	10	0	0	0	0	187
5:15	0	40	9	0	2	1	0	1	4	0	0	0	0	57	17:15	0	109	8	0	4	3	0	0	2	0	0	0	0	126
5:30	1	53	12	0	3	4	0	1	3	0	0	0	0	77	17:30	0	122	12	0	7	1	0	2	5	0	0	0	0	149
5:45	0	71	21	0	4	3	0	0	1	0	0	0	0	100	17:45	0	83	17	0	2	2	0	2	6	0	0	0	0	112
6:00	0	56	11	0	11	3	0	2	3	0	0	0	0	86	18:00	1	77	11	0	4	2	0	5	4	0	0	0	0	104
6:15	1	52	10	0	4	7	0	0	4	0	0	0	0	78	18:15	0	74	11	0	5	2	0	2	8	0	0	0	0	102
6:30	0	71	20	0	10	4	0	0	5	0	0	0	0	110	18:30	0	53	14	1	3	4	0	3	7	0	0	0	0	85
6:45	1	106	19	0	2	1	0	0	4	0	0	0	0	133	18:45	0	54	9	0	2	0	0	1	2	0	0	0	0	68
7:00	1	86	12	0	2	5	0	3	6	0	0	0	0	115	19:00	0	68	6	0	3	4	0	1	4	0	2	0	0	88
7:15	0	108	18	0	6	1	0	1	2	0	0	0	0	136	19:15	0	60	5	0	2	4	0	0	1	0	0	0	0	72
7:30	0	88	25	0	8	7	0	2	2	0	0	0	0	132	19:30	0	32	2	0	2	2	0	0	1	0	0	0	0	39
7:45	0	130	23	0	6	4	0	1	11	0	0	0	0	175	19:45	0	43	7	0	1	1	0	0	3	0	0	0	0	55
8:00	0	99	24	0	4	3	0	4	6	1	0	0	0	141	20:00	0	42	7	0	0	1	0	1	4	0	0	0	0	55
8:15	0	100	12	0	3	4	0	1	4	0	0	0	0	124	20:15	0	41	8	0	0	1	0	1	3	0	0	0	0	54
8:30	0	71	15	0	10	1	0	3	4	0	0	0	0	104	20:30	0	30	5	0	0	0	0	0	0	0	0	0	0	35
8:45	0	64	22	0	8	3	0	0	7	0	0	0	0	104	20:45	0	20	1	0	0	0	0	0	3	0	0	0	0	24
9:00	0	39	22	0	11	2	0	3	5	0	0	0	0	82	21:00	0	29	4	0	0	2	0	0	4	0	0	0	0	39
9:15	0	49	19	0	9	4	0	4	5	0	0	0	0	90	21:15	0	25	1	0	0	0	0	0	2	0	0	0	0	28
9:30	0	56	13	0	10	4	0	2	7	0	0	0	0	92	21:30	0	20	3	0	0	1	0	0	2	0	0	0	0	26
9:45	0	64	21	0	7	2	0	2	6	0	0	0	0	102	21:45	0	24	2	0	0	1	0	0	2	0	0	0	0	29
10:00	0	42	23	0	14	3	0	2	5	0	1	0	0	90	22:00	0	16	2	0	0	1	0	1	2	0	0	0	0	22
10:15	1	70	15	0	9	4	0	3	9	0	0	0	0	111	22:15	0	28	2	0	1	2	0	0	2	0	0	0	0	35
10:30	0	61	26	0	6	2	0	1	12	0	0	0	0	108	22:30	0	16	2	0	0	0	0	0	0	0	0	0	0	18
10:45	0	62	14	0	14	1	0	2	16	1	0	0	0	110	22:45	0	13	0	0	1	0	0	0	3	0	0	0	0	17
11:00	0	48	14	0	16	3	0	2	11	0	0	0	0	94	23:00	0	10	1	0	1	0	0	0	3	0	0	0	0	15
11:15	0	67	17	0	14	2	0	0	5	0	0	0	0	105	23:15	0	12	0	0	1	0	0	0	6	0	0	0	0	19
11:30	0	76	23	0	11	3	0	2	10	0	0	0	0	125	23:30	0	10	0	0	0	1	0	0	1	0	0	0	0	12
11:45	0	74	27	0	12	4	0	1	11	0	0	0	0	129	23:45	0	7	0	0	0	0	0	0	4	0	0	0	0	11
TOTAL	6	2,137	544	0	226	97	0	44	196	2	1	0	0	3,253	TOTAL	6	2,916	617	2	268	99	0	70	242	2	2	0	0	4,224

AM PEAK HOUR 7:15 AM  
AM PEAK VOLUME 584

PM PEAK HOUR 4:15 PM  
PM PEAK VOLUME 614

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	12	5,053	1,161	2	494	196	0	114	438	4	3	0	0	7,477
% OF TOTAL	0.2%	67.6%	15.5%	0.0%	6.6%	2.6%	0.0%	1.5%	5.9%	0.1%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS9 Florence west of Pioneer

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	1	24	8	0	1	2	0	0	4	0	4	0	0	44	12:00	1	170	34	1	18	1	0	1	8	1	0	0	0	235
0:15	0	32	7	0	0	1	0	0	2	0	1	0	0	43	12:15	0	183	31	2	25	3	0	1	7	0	0	0	0	252
0:30	0	30	7	0	1	1	0	0	3	0	2	0	0	44	12:30	1	177	43	0	13	1	0	0	8	0	0	0	0	243
0:45	0	37	5	0	1	1	0	0	1	0	0	0	0	45	12:45	1	213	51	1	13	1	0	2	6	0	0	0	0	288
1:00	0	27	4	0	1	1	0	0	3	0	0	0	0	36	13:00	1	176	29	2	15	1	2	0	5	0	0	0	0	231
1:15	0	16	4	0	1	0	0	0	1	0	1	0	0	23	13:15	0	195	69	1	25	2	0	0	10	0	0	0	0	302
1:30	0	21	3	0	0	4	0	1	1	0	1	0	0	31	13:30	1	207	54	1	18	1	0	0	7	0	0	0	0	289
1:45	0	42	3	0	1	5	0	0	4	0	1	0	0	56	13:45	0	184	46	1	18	3	0	3	13	0	0	0	0	268
2:00	0	22	10	0	1	4	0	0	5	0	0	0	0	42	14:00	0	178	49	2	25	3	0	3	12	0	0	0	0	272
2:15	0	30	9	0	1	2	0	0	5	0	1	0	0	48	14:15	1	186	33	1	23	2	0	5	13	0	0	0	0	264
2:30	0	21	2	0	0	1	0	0	1	0	0	0	0	25	14:30	0	197	48	1	16	2	0	1	13	0	0	0	0	278
2:45	0	31	4	0	1	2	0	0	0	0	0	0	0	38	14:45	1	227	60	0	20	3	0	0	10	0	0	0	0	321
3:00	0	27	5	0	3	2	0	0	2	0	0	0	0	39	15:00	0	180	50	0	12	4	0	1	11	0	0	0	0	258
3:15	0	28	10	0	0	1	0	0	3	0	0	0	0	42	15:15	0	212	47	3	15	0	0	0	11	1	0	0	0	289
3:30	0	50	9	0	2	0	0	0	0	0	0	0	0	61	15:30	0	211	50	0	14	1	1	1	7	0	1	0	0	286
3:45	0	44	13	0	1	2	0	1	1	0	1	0	0	63	15:45	1	245	49	1	10	5	0	2	7	0	0	0	0	320
4:00	0	47	17	0	3	0	0	0	5	0	0	0	0	72	16:00	1	209	52	0	13	3	0	1	8	0	1	0	0	288
4:15	1	69	13	0	2	0	0	0	1	0	0	0	0	86	16:15	0	234	35	2	10	0	0	1	7	0	0	0	0	289
4:30	0	80	20	0	3	1	0	0	1	0	1	0	0	106	16:30	4	261	38	1	7	2	0	0	6	0	0	0	0	319
4:45	2	107	27	0	1	2	0	1	2	0	0	0	0	142	16:45	3	235	45	0	15	2	0	0	8	0	0	0	0	308
5:00	0	66	24	0	3	3	0	0	2	0	0	0	0	98	17:00	1	207	38	1	10	4	0	0	1	0	0	0	0	262
5:15	0	101	23	0	3	0	0	0	2	0	2	0	0	131	17:15	3	241	41	3	8	1	0	1	4	0	0	0	0	302
5:30	3	179	46	0	5	0	0	0	1	0	1	0	0	235	17:30	4	229	32	0	3	0	0	0	4	0	0	0	0	272
5:45	3	197	55	1	9	1	0	0	2	0	0	0	0	268	17:45	0	261	40	1	3	1	0	1	7	0	0	0	0	314
6:00	0	198	29	0	8	2	0	1	3	0	1	0	0	242	18:00	0	213	28	0	3	3	0	1	5	0	0	0	0	253
6:15	4	213	53	1	2	2	0	0	4	1	1	0	0	281	18:15	1	243	45	2	4	2	0	1	4	0	0	0	0	302
6:30	1	223	43	0	9	4	0	0	5	0	1	0	0	286	18:30	0	220	28	1	5	1	0	2	4	0	0	0	0	261
6:45	0	306	68	1	16	3	0	0	3	0	0	0	0	397	18:45	0	223	30	0	5	2	0	1	4	0	0	0	0	265
7:00	1	248	39	1	12	2	0	1	5	0	0	0	0	309	19:00	1	215	32	2	5	2	0	2	6	0	0	0	0	265
7:15	1	255	42	2	13	0	0	0	7	0	1	0	0	321	19:15	2	247	30	1	7	0	0	1	3	0	3	0	0	294
7:30	0	248	33	1	7	2	0	1	7	0	0	0	0	299	19:30	1	209	28	1	2	0	0	0	7	0	0	0	0	248
7:45	0	284	41	1	14	2	0	0	6	0	0	0	0	348	19:45	0	164	19	0	1	1	0	1	1	0	0	0	0	187
8:00	0	213	34	2	14	4	0	2	3	0	2	0	0	274	20:00	2	180	34	1	5	1	0	1	3	0	0	0	0	227
8:15	0	204	35	3	13	4	0	0	9	0	1	0	0	269	20:15	1	152	23	1	6	0	0	0	7	0	0	0	0	190
8:30	0	184	57	0	19	3	0	2	9	0	0	0	0	274	20:30	0	140	14	0	4	0	0	1	5	0	1	0	0	165
8:45	0	190	36	1	11	1	0	0	10	0	0	0	0	249	20:45	0	149	13	3	2	1	0	3	1	0	1	0	0	173
9:00	2	138	43	2	13	5	0	0	5	0	0	0	0	208	21:00	0	139	20	0	5	0	0	0	7	0	1	0	0	172
9:15	0	148	38	1	17	0	0	0	9	0	1	0	0	214	21:15	0	126	19	0	1	1	0	0	1	0	0	0	0	148
9:30	0	157	39	1	19	5	0	0	11	1	0	0	0	233	21:30	0	140	14	0	4	0	0	1	5	0	1	0	0	165
9:45	1	143	35	0	16	1	0	2	11	0	0	0	0	209	21:45	0	104	12	1	3	2	0	0	4	0	1	0	0	127
10:00	1	137	38	2	25	4	0	3	6	0	0	0	0	216	22:00	1	99	14	1	3	2	0	1	4	0	2	0	0	127
10:15	1	137	43	1	28	2	0	0	6	0	0	0	0	218	22:15	0	97	11	0	1	0	0	0	4	0	0	0	0	113
10:30	0	158	33	1	25	3	0	2	6	0	0	0	0	228	22:30	0	101	11	1	1	0	0	1	1	0	2	0	0	118
10:45	0	134	45	0	22	2	0	1	11	0	1	0	0	216	22:45	0	106	13	0	1	1	0	0	1	0	2	0	0	124
11:00	0	147	40	1	25	3	0	0	8	0	0	0	0	224	23:00	0	62	10	0	0	0	0	0	2	0	2	0	0	76
11:15	0	163	45	2	15	5	0	0	14	0	1	0	0	245	23:15	0	83	2	0	0	1	0	0	2	0	1	0	0	89
11:30	0	196	36	1	12	2	0	0	13	0	0	0	0	260	23:30	1	63	6	0	2	2	0	0	3	0	1	0	0	78
11:45	2	157	35	1	22	3	0	1	11	0	0	0	0	232	23:45	0	52	8	0	0	0	0	0	6	0	1	0	0	67
TOTAL	24	5,909	1,308	27	421	100	0	19	234	2	26	0	0	8,070	TOTAL	34	8,545	1,528	40	419	68	3	41	283	2	21	0	0	10,984

AM PEAK HOUR  
AM PEAK VOLUME 6:45 AM  
1,326

PM PEAK HOUR  
PM PEAK VOLUME 3:45 PM  
1,216

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	58	14,454	2,836	67	840	168	3	60	517	4	47	0	0	19,054
% OF TOTAL	0.3%	75.9%	14.9%	0.4%	4.4%	0.9%	0.0%	0.3%	2.7%	0.0%	0.2%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	114	29,397	5,706	135	1,524	348	7	87	###	10	96	0	0	38,467
% OF TOTAL	0.6%	154.3%	29.9%	0.7%	8.0%	1.8%	0.0%	0.5%	5.5%	0.1%	0.5%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS9 Florence west of Pioneer

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	59	6	0	1	2	0	0	1	0	0	0	0	69	12:00	0	190	34	0	8	2	0	1	14	0	0	0	0	249
0:15	0	29	2	0	2	0	0	0	0	0	0	0	0	33	12:15	2	202	39	2	9	2	0	0	8	0	0	0	0	264
0:30	0	35	6	0	1	2	0	0	1	0	0	0	0	45	12:30	1	255	30	1	9	1	0	0	9	0	0	0	0	306
0:45	0	21	2	0	1	1	0	0	1	0	2	0	0	28	12:45	0	223	48	2	11	2	0	2	6	0	0	0	0	294
1:00	0	30	2	0	0	1	0	0	1	0	0	0	0	34	13:00	1	185	54	0	9	1	0	1	11	0	0	0	0	262
1:15	0	10	3	0	0	1	0	0	0	0	2	0	0	16	13:15	0	220	45	1	8	0	0	0	5	0	0	0	0	279
1:30	0	21	1	0	0	2	0	0	2	0	3	0	0	29	13:30	0	228	45	1	12	5	0	0	9	2	0	0	0	302
1:45	0	34	3	0	0	0	0	0	2	0	0	0	0	39	13:45	1	249	37	1	8	4	0	0	8	0	1	0	0	309
2:00	0	91	6	0	0	1	0	0	2	0	0	0	0	100	14:00	0	218	62	0	15	2	0	0	6	0	0	0	0	303
2:15	0	47	1	0	0	2	0	1	2	0	1	0	0	54	14:15	1	281	53	2	9	1	0	0	6	0	0	0	0	353
2:30	0	27	5	0	1	2	0	0	3	0	0	0	0	38	14:30	0	305	52	1	12	1	0	1	10	0	0	0	0	382
2:45	0	16	0	0	2	2	0	0	1	0	0	0	0	21	14:45	0	209	50	0	7	0	0	0	8	0	0	0	0	274
3:00	0	17	0	0	2	0	0	0	1	0	2	0	0	22	15:00	2	217	43	1	5	2	0	0	7	0	0	0	0	277
3:15	0	29	4	0	1	0	0	1	6	0	2	0	0	43	15:15	1	235	44	0	9	6	0	0	11	0	0	0	0	306
3:30	0	35	7	0	3	0	0	0	8	0	1	0	0	54	15:30	3	295	42	3	13	1	0	0	5	0	0	0	0	362
3:45	0	38	5	0	2	1	0	0	4	0	1	0	0	51	15:45	1	282	40	0	10	1	0	0	6	0	0	0	0	340
4:00	0	55	14	0	2	0	0	0	2	0	3	0	0	76	16:00	3	255	44	1	8	5	1	0	3	0	0	0	0	320
4:15	0	69	16	0	0	2	0	0	8	0	1	0	0	96	16:15	2	253	48	1	13	2	0	1	7	0	0	0	0	327
4:30	1	87	18	0	4	7	0	0	10	0	0	0	0	127	16:30	5	376	57	1	3	5	0	0	4	0	0	0	0	451
4:45	1	67	28	1	4	6	0	1	11	0	1	0	0	120	16:45	2	259	42	0	2	1	0	1	7	0	0	0	0	314
5:00	1	104	36	0	8	1	0	0	4	0	2	0	0	156	17:00	2	272	31	1	1	0	0	0	6	0	0	0	0	313
5:15	1	109	50	0	11	3	1	1	3	0	1	0	0	180	17:15	1	240	45	1	0	2	0	1	5	0	0	0	0	295
5:30	0	132	47	0	13	8	0	0	13	0	1	0	0	214	17:30	0	245	33	2	4	0	0	0	1	0	0	0	0	285
5:45	0	128	52	2	12	0	1	1	8	0	1	0	0	205	17:45	3	229	40	1	2	1	0	0	4	0	0	0	0	280
6:00	1	155	39	1	14	1	0	1	5	0	1	0	0	218	18:00	0	259	35	1	3	2	0	0	8	0	0	0	0	308
6:15	0	159	52	0	11	4	0	0	7	0	0	0	0	233	18:15	0	205	34	1	7	1	0	1	2	1	0	0	0	252
6:30	0	206	55	3	15	4	0	0	8	0	0	0	0	291	18:30	0	189	35	1	4	0	0	0	3	0	0	0	0	232
6:45	0	190	64	0	16	4	0	1	7	2	0	0	0	284	18:45	0	203	33	0	2	0	0	0	5	0	0	0	0	243
7:00	1	211	45	2	23	4	0	1	4	0	0	0	0	291	19:00	1	221	18	1	0	4	0	0	6	0	3	0	0	254
7:15	2	243	51	0	18	3	0	1	4	0	0	0	0	322	19:15	2	153	24	0	2	2	0	0	6	0	0	0	0	189
7:30	1	219	49	3	15	4	1	1	3	0	0	0	0	296	19:30	0	189	29	2	2	2	0	1	5	0	1	0	0	231
7:45	1	202	47	2	14	0	0	0	4	1	1	0	0	272	19:45	1	153	22	0	0	1	0	1	7	0	0	0	0	185
8:00	2	239	48	1	15	3	0	1	9	0	0	0	0	318	20:00	0	189	25	0	3	1	0	1	5	0	2	0	0	226
8:15	0	218	45	2	12	3	0	0	8	0	0	0	0	288	20:15	1	141	17	0	2	0	0	0	4	0	2	0	0	167
8:30	1	177	51	1	12	1	0	1	5	0	0	0	0	249	20:30	0	176	25	3	4	7	0	0	6	0	0	0	0	221
8:45	0	190	38	0	14	3	0	0	10	0	0	0	0	255	20:45	1	134	19	0	1	3	0	1	4	0	0	0	0	163
9:00	0	183	47	1	14	2	0	0	7	0	2	0	0	256	21:00	1	141	14	1	1	1	0	0	0	0	1	0	0	160
9:15	0	157	37	2	31	2	0	0	8	0	0	0	0	237	21:15	1	134	15	0	0	3	0	0	2	0	2	0	0	157
9:30	0	132	37	0	28	3	0	1	12	0	0	0	0	213	21:30	0	119	17	1	3	2	0	0	4	0	0	0	0	146
9:45	0	161	49	1	15	1	0	1	7	0	0	0	0	235	21:45	0	90	8	0	7	1	0	0	4	0	1	0	0	111
10:00	1	171	39	1	11	3	0	0	12	0	0	0	0	238	22:00	0	121	4	0	2	0	0	0	4	0	2	0	0	133
10:15	0	161	39	3	16	4	0	0	5	0	0	0	0	228	22:15	1	81	4	0	3	0	0	0	2	0	1	0	0	92
10:30	0	158	38	1	18	3	0	0	12	0	1	0	0	231	22:30	0	86	8	1	1	0	0	0	4	0	0	0	0	100
10:45	0	174	40	1	9	1	0	0	11	0	0	0	0	236	22:45	0	55	4	0	1	0	0	0	8	0	0	0	0	68
11:00	0	171	48	0	15	0	0	0	8	0	0	0	0	242	23:00	0	61	12	0	0	0	0	0	1	0	2	0	0	76
11:15	0	184	35	2	15	1	0	0	10	0	1	0	0	248	23:15	0	51	4	0	0	2	0	0	0	0	0	0	0	57
11:30	1	193	44	2	16	2	0	0	2	0	0	0	0	260	23:30	1	72	2	0	0	0	0	0	1	0	1	0	0	77
11:45	0	212	52	1	12	1	0	0	7	0	0	0	0	285	23:45	0	41	1	0	0	0	0	0	0	0	0	0	0	42
TOTAL	15	5,756	1,403	33	449	101	3	14	269	3	30	0	0	8,076	TOTAL	41	9,187	1,467	35	235	79	1	13	257	3	19	0	0	11,337
AM PEAK HOUR														7:15 AM	PM PEAK HOUR														3:45 PM
AM PEAK VOLUME														1,208	PM PEAK VOLUME														1,438

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	56	####	2,870	68	684	180	4	27	526	6	49	0	0	19,413
% OF TOTAL	0.3%	77.0%	14.8%	0.4%	3.5%	0.9%	0.0%	0.1%	2.7%	0.0%	0.3%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS10 Carmenita south of Imperial

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	37	3	0	0	0	0	0	1	0	1	0	0	42	12:00	0	159	36	0	16	0	0	1	10	0	0	0	0	222
0:15	0	23	5	0	0	0	0	1	1	0	0	0	0	30	12:15	0	116	25	0	13	3	0	1	9	0	0	0	0	167
0:30	0	25	4	0	1	1	0	0	2	0	0	0	0	33	12:30	0	141	35	0	11	3	0	5	7	0	0	0	0	202
0:45	0	21	4	0	1	0	0	0	1	0	1	0	0	28	12:45	0	122	35	0	11	7	1	1	3	0	0	0	0	180
1:00	0	24	4	0	1	0	0	0	0	0	0	0	0	29	13:00	0	153	41	1	15	4	0	2	15	0	0	0	0	231
1:15	0	23	2	0	0	0	0	1	0	0	0	0	0	26	13:15	0	114	55	0	21	4	0	3	7	0	0	0	0	204
1:30	0	28	2	0	0	0	0	0	1	0	0	0	0	31	13:30	0	172	52	0	10	1	0	4	6	0	0	0	0	245
1:45	0	31	4	0	0	0	0	0	1	0	0	0	0	36	13:45	0	140	46	0	14	1	0	2	4	0	0	0	0	207
2:00	0	28	3	0	0	0	0	0	0	0	0	0	0	31	14:00	1	157	64	0	19	3	0	0	7	0	0	0	0	251
2:15	0	16	5	0	0	0	0	0	1	0	0	0	0	22	14:15	1	150	54	0	25	3	0	2	6	0	0	0	0	241
2:30	1	20	5	0	1	0	0	0	0	0	0	1	0	28	14:30	3	255	78	0	17	5	0	1	3	0	0	0	0	362
2:45	1	10	6	0	1	0	0	0	0	0	1	0	0	19	14:45	0	199	56	0	18	2	0	2	8	0	0	0	0	285
3:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14	15:00	1	219	51	0	16	2	0	3	11	0	0	0	0	303
3:15	0	24	2	0	1	0	0	0	1	0	0	1	0	29	15:15	1	190	44	0	14	2	0	3	6	0	0	0	0	260
3:30	1	24	6	0	1	1	0	0	1	0	0	0	0	34	15:30	0	200	61	0	17	1	0	1	7	0	0	0	0	287
3:45	0	24	6	0	3	0	0	0	0	0	1	0	0	34	15:45	0	220	64	0	15	0	0	4	4	0	0	0	0	307
4:00	2	34	11	0	4	1	0	0	1	0	0	0	0	53	16:00	2	212	51	0	19	0	0	2	5	0	0	0	0	291
4:15	0	32	9	0	11	0	0	0	1	0	1	0	0	54	16:15	3	270	53	0	19	1	0	2	5	0	0	0	0	353
4:30	0	49	17	0	3	2	0	0	3	0	0	0	0	74	16:30	0	227	66	0	5	0	0	3	5	0	0	0	0	306
4:45	0	54	18	0	4	0	0	0	3	0	0	0	0	79	16:45	0	271	58	0	9	1	0	1	5	0	0	0	0	345
5:00	0	48	12	0	3	0	0	0	3	0	0	0	0	66	17:00	2	293	62	0	9	2	0	2	4	0	0	0	0	374
5:15	0	62	25	0	3	2	0	0	2	0	0	0	0	94	17:15	1	306	51	0	11	0	0	3	4	0	0	0	0	376
5:30	1	86	25	0	3	6	0	1	4	0	0	0	0	126	17:30	1	282	34	0	4	0	0	3	5	0	0	0	0	329
5:45	1	77	21	0	5	5	0	0	0	0	0	0	0	109	17:45	3	230	40	0	6	1	0	1	2	0	0	0	0	283
6:00	0	79	27	0	5	1	0	0	3	0	0	0	0	115	18:00	2	206	40	0	5	1	0	3	3	0	0	0	0	260
6:15	1	75	41	0	5	1	0	1	3	0	0	0	0	127	18:15	0	219	31	0	2	0	0	0	0	0	0	0	0	252
6:30	0	107	32	0	7	2	0	0	2	0	0	0	0	150	18:30	0	196	32	0	6	2	0	4	0	0	0	0	0	240
6:45	1	113	44	0	3	3	0	0	2	0	0	0	0	166	18:45	0	145	26	0	4	0	0	1	1	0	1	0	0	178
7:00	0	103	24	0	8	3	0	0	4	0	0	0	0	142	19:00	2	167	28	0	3	0	0	1	0	0	1	0	0	202
7:15	0	112	31	0	10	2	0	1	7	0	1	0	0	164	19:15	0	151	24	0	3	1	0	1	1	0	0	0	0	181
7:30	0	145	40	0	12	2	0	0	9	0	0	0	0	208	19:30	1	169	23	0	1	1	0	3	2	0	0	0	0	200
7:45	1	165	39	0	12	4	0	0	2	0	0	0	0	223	19:45	0	117	16	0	3	0	0	1	1	0	0	0	0	138
8:00	1	152	41	0	19	1	0	1	4	0	0	0	0	219	20:00	0	135	25	0	1	0	0	4	0	0	0	0	0	165
8:15	0	124	36	0	9	4	0	0	6	0	1	0	0	180	20:15	0	112	21	0	1	0	0	2	0	0	0	0	0	136
8:30	1	152	39	0	9	0	0	0	7	0	0	1	0	209	20:30	0	102	20	0	1	0	0	2	0	0	0	0	0	125
8:45	0	139	49	0	12	3	0	0	7	0	0	0	0	210	20:45	1	105	11	0	1	0	0	0	1	0	0	0	0	119
9:00	0	104	29	0	18	1	0	0	5	0	0	0	0	157	21:00	0	98	10	0	2	0	0	0	0	0	0	0	0	110
9:15	0	102	21	0	15	3	0	1	6	0	0	0	0	148	21:15	2	83	13	0	0	0	0	1	0	0	1	0	0	100
9:30	0	116	38	0	24	2	0	2	4	0	1	0	0	187	21:30	0	95	11	0	1	0	0	1	2	0	0	0	0	110
9:45	0	113	31	0	15	4	0	0	8	0	0	0	0	171	21:45	0	86	12	0	1	0	0	1	1	0	1	0	0	102
10:00	0	130	33	0	21	2	0	2	13	0	0	0	0	201	22:00	1	65	14	0	0	0	0	0	2	0	0	0	0	82
10:15	0	99	26	0	16	1	0	0	11	0	0	0	0	153	22:15	0	61	7	0	0	0	0	0	3	0	1	0	0	72
10:30	0	119	32	0	15	2	0	0	13	0	2	0	0	183	22:30	1	57	9	0	0	1	0	0	0	0	2	0	0	70
10:45	0	124	36	0	20	2	0	0	8	0	0	0	0	190	22:45	0	44	6	0	1	0	0	1	0	0	1	0	0	53
11:00	0	135	43	0	15	2	0	1	14	0	1	0	0	211	23:00	1	52	7	0	1	0	0	0	1	0	0	0	0	62
11:15	0	105	35	0	7	1	0	1	10	0	0	0	0	159	23:15	0	50	9	0	0	1	0	1	1	0	1	0	0	63
11:30	0	126	46	0	25	5	0	2	11	0	0	0	0	215	23:30	0	54	6	0	1	0	0	0	1	0	0	0	0	62
11:45	0	123	38	0	18	4	0	2	7	0	0	0	0	192	23:45	0	37	7	0	0	0	0	0	2	0	0	0	0	46
TOTAL	12	3,675	1,051	0	366	73	0	17	193	0	11	3	0	5,401	TOTAL	30	7,404	1,620	1	372	53	1	79	170	0	9	0	0	9,739
AM PEAK HOUR AM PEAK VOLUME														7:45 AM 831	PM PEAK HOUR PM PEAK VOLUME														4:45 PM 1,424

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	42	11,079	2,671	1	738	126	1	96	363	0	20	3	0	15,140
% OF TOTAL	0.3%	73.2%	17.6%	0.0%	4.9%	0.8%	0.0%	0.6%	2.4%	0.0%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	83	21,844	5,298	1	1,497	255	1	202	675	0	34	5	0	29,895
% OF TOTAL	0.5%	144.3%	35.0%	0.0%	9.9%	1.7%	0.0%	1.3%	4.5%	0.0%	0.2%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS10 Carmenita south of Imperial

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	29	2	0	0	1	0	0	0	0	0	0	0	32	12:00	0	147	48	0	14	1	0	2	10	0	0	0	0	222
0:15	0	20	2	0	0	0	0	0	0	0	0	0	0	22	12:15	0	132	42	0	22	1	0	1	5	0	0	0	0	203
0:30	0	17	1	0	1	0	0	0	0	0	0	0	0	19	12:30	3	152	47	0	12	0	0	3	8	0	0	0	0	225
0:45	0	11	3	0	1	0	0	1	0	0	0	0	0	16	12:45	1	147	41	0	19	3	0	1	7	0	0	0	0	219
1:00	0	10	2	0	1	0	0	0	1	0	0	0	0	14	13:00	0	139	40	0	10	2	0	2	4	0	0	0	0	197
1:15	0	17	0	0	1	0	0	0	0	0	0	0	0	18	13:15	1	138	35	0	8	2	0	0	8	0	0	0	0	192
1:30	0	18	2	0	0	0	0	0	2	0	0	0	0	22	13:30	1	163	50	0	14	2	0	1	7	0	0	0	0	238
1:45	0	9	0	0	0	0	0	0	1	0	0	0	0	10	13:45	0	145	40	0	13	2	0	1	4	0	0	0	0	205
2:00	1	11	4	0	0	0	0	0	0	0	0	0	0	16	14:00	1	156	53	0	16	1	0	1	7	0	0	0	0	235
2:15	0	9	3	0	2	0	0	1	2	0	0	0	0	17	14:15	0	134	45	0	16	2	0	0	4	0	0	0	0	201
2:30	1	18	4	0	1	0	0	0	0	0	1	0	0	25	14:30	0	170	52	0	22	2	0	1	5	0	0	0	0	252
2:45	0	21	2	0	1	1	0	0	0	0	1	0	0	26	14:45	1	166	37	0	10	3	0	0	3	0	0	0	0	220
3:00	0	28	6	0	1	0	0	0	0	0	0	1	0	36	15:00	0	152	39	0	13	1	0	4	4	0	0	0	0	213
3:15	0	24	7	0	1	0	0	0	0	0	0	1	0	33	15:15	1	150	59	0	21	2	0	5	8	0	0	0	0	246
3:30	0	48	7	0	0	0	0	0	0	0	0	0	0	55	15:30	0	181	43	0	9	2	0	3	6	0	0	0	0	244
3:45	0	47	11	0	1	0	0	0	2	0	0	0	0	61	15:45	1	160	53	0	9	0	0	1	1	0	0	0	0	225
4:00	0	41	8	0	1	0	0	0	1	0	0	1	0	52	16:00	1	184	38	0	9	1	0	5	1	0	0	0	0	239
4:15	1	49	21	0	1	2	0	2	3	0	4	0	0	83	16:15	3	193	36	0	13	0	0	2	5	0	0	0	0	252
4:30	0	95	21	0	3	1	0	1	3	0	1	0	0	125	16:30	0	210	47	0	9	5	0	1	1	0	0	0	0	273
4:45	0	79	31	0	2	1	0	0	5	0	0	0	0	118	16:45	0	196	30	0	10	2	0	4	1	0	0	0	0	243
5:00	1	87	34	0	9	3	0	0	1	0	0	0	0	135	17:00	2	186	34	0	7	4	0	0	2	0	0	0	0	235
5:15	0	115	36	0	9	3	0	0	3	0	0	0	0	166	17:15	0	198	35	0	8	1	0	5	0	0	0	0	0	247
5:30	1	121	38	0	11	2	0	2	6	0	0	0	0	181	17:30	1	194	40	0	3	0	0	3	1	0	0	0	0	242
5:45	0	169	43	0	11	2	0	0	3	0	0	0	0	228	17:45	2	174	34	0	10	2	0	3	0	0	0	0	0	225
6:00	0	128	51	0	8	3	0	0	2	0	0	0	0	192	18:00	0	175	22	0	8	2	0	2	2	0	0	0	0	211
6:15	0	142	56	0	10	1	0	1	8	0	0	0	0	218	18:15	0	159	26	0	7	0	0	5	1	0	0	0	0	198
6:30	0	163	60	0	10	3	0	0	8	0	0	0	0	244	18:30	0	132	26	0	3	0	0	1	2	0	0	0	0	164
6:45	1	169	52	0	12	6	0	0	4	0	0	0	0	244	18:45	0	125	21	0	7	0	0	2	2	0	0	0	0	157
7:00	0	212	43	0	10	3	0	0	1	0	1	0	0	270	19:00	0	128	22	0	6	0	0	1	2	0	0	0	0	159
7:15	1	211	47	0	17	4	0	1	3	0	0	0	0	284	19:15	0	129	18	0	1	0	0	1	1	0	0	0	0	150
7:30	1	234	50	0	8	4	0	2	6	0	0	0	0	305	19:30	0	119	22	0	1	0	0	2	0	0	0	0	0	144
7:45	0	223	44	0	13	4	0	0	10	0	0	0	0	294	19:45	0	92	17	0	3	1	0	2	0	0	0	0	0	115
8:00	1	191	65	0	10	2	0	0	6	0	0	0	0	275	20:00	0	120	12	0	1	0	0	2	2	0	0	0	0	137
8:15	1	178	37	0	18	1	0	1	6	0	0	0	0	242	20:15	0	89	11	0	1	1	0	1	0	0	1	0	0	104
8:30	0	174	38	0	11	2	0	0	9	0	0	0	0	234	20:30	1	81	5	0	4	0	0	1	1	0	0	0	0	93
8:45	1	130	36	0	12	2	0	0	2	0	0	0	0	183	20:45	1	76	17	0	3	0	0	1	2	0	0	0	0	100
9:00	1	101	43	0	13	3	0	1	6	0	0	0	0	168	21:00	0	84	16	0	3	1	0	0	2	0	0	0	0	106
9:15	1	114	32	0	19	3	0	3	5	0	0	0	0	177	21:15	0	73	9	0	0	1	0	0	1	0	0	0	0	84
9:30	0	143	33	0	15	1	0	1	6	0	0	0	0	199	21:30	0	73	16	0	0	1	0	0	0	0	0	0	0	90
9:45	0	133	30	0	13	2	0	1	4	0	0	0	0	183	21:45	0	49	7	0	2	0	0	1	1	0	0	0	0	60
10:00	0	123	34	0	23	1	0	1	4	0	0	0	0	186	22:00	0	62	6	0	1	0	0	0	0	0	0	0	0	69
10:15	1	110	39	0	18	4	0	2	11	0	1	0	0	186	22:15	0	53	6	0	2	0	0	1	0	0	0	0	0	62
10:30	1	120	39	0	19	0	0	2	9	0	0	0	0	190	22:30	0	62	5	0	1	1	0	0	0	0	0	0	0	69
10:45	0	129	29	0	16	5	0	0	6	0	0	0	0	185	22:45	0	40	6	0	0	0	0	0	1	0	0	0	0	47
11:00	1	125	44	0	20	1	0	3	6	0	1	0	0	201	23:00	1	32	5	0	0	1	0	0	1	0	0	0	0	40
11:15	0	142	34	0	15	2	0	1	11	0	0	0	0	205	23:15	0	36	1	0	2	0	0	0	2	0	0	0	0	41
11:30	1	143	50	0	17	2	0	1	9	0	1	0	0	224	23:30	1	28	5	0	0	0	0	1	1	0	0	0	0	36
11:45	0	123	33	0	20	4	0	5	10	0	1	0	0	196	23:45	1	27	1	0	1	0	0	0	1	0	0	0	0	31
TOTAL	17	4,754	1,307	0	405	79	0	33	185	0	13	2	0	6,795	TOTAL	24	6,011	1,320	0	354	50	0	73	127	0	1	0	0	7,960
AM PEAK HOUR														7:15 AM	PM PEAK HOUR														4:00 PM
AM PEAK VOLUME														1,158	PM PEAK VOLUME														1,007

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	41	####	2,627	0	759	129	0	106	312	0	14	2	0	14,755
% OF TOTAL	0.3%	73.0%	17.8%	0.0%	5.1%	0.9%	0.0%	0.7%	2.1%	0.0%	0.1%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS11 Carmenita north of Alondra

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	17	4	1	0	1	0	4	4	0	0	0	0	31	12:00	0	121	24	0	18	2	0	6	14	0	0	0	0	185
0:15	0	13	3	0	1	3	0	2	2	0	0	0	0	24	12:15	0	117	27	1	26	2	0	2	12	1	1	0	0	189
0:30	0	17	2	0	2	1	0	5	1	0	0	0	0	28	12:30	0	104	26	0	12	1	0	1	14	0	0	0	0	158
0:45	0	14	0	0	1	2	0	2	6	0	0	1	0	26	12:45	1	102	27	1	17	0	0	1	17	0	0	0	0	166
1:00	0	15	4	1	3	0	0	0	3	0	0	0	0	26	13:00	0	114	26	0	15	1	0	3	15	0	0	0	0	174
1:15	0	11	0	0	2	1	0	2	6	0	0	0	0	22	13:15	0	111	29	1	17	1	0	1	10	0	0	0	0	170
1:30	0	16	5	0	3	1	0	1	4	0	0	0	0	30	13:30	1	155	51	0	11	4	0	4	8	0	1	0	0	235
1:45	0	12	1	0	2	1	0	0	4	0	0	0	0	20	13:45	0	131	28	0	11	4	0	2	8	1	0	0	0	185
2:00	0	10	5	0	0	1	0	1	0	0	0	0	0	17	14:00	1	129	36	1	15	0	0	4	15	0	0	0	0	201
2:15	0	6	0	0	2	2	0	0	2	0	0	1	0	13	14:15	0	142	38	0	11	2	0	3	14	1	0	0	0	211
2:30	0	14	5	0	3	1	0	3	5	0	1	0	0	32	14:30	1	211	45	1	18	2	0	4	8	0	0	0	0	290
2:45	0	6	3	0	0	1	0	1	3	0	0	0	0	14	14:45	1	185	33	0	19	2	0	3	14	0	0	0	0	257
3:00	0	12	2	0	3	1	0	1	1	0	1	1	0	22	15:00	0	186	42	1	15	3	0	3	7	0	0	0	0	257
3:15	0	10	1	0	2	0	0	1	4	0	1	0	0	19	15:15	0	143	36	1	13	2	0	3	6	2	0	0	0	206
3:30	0	9	2	0	3	0	0	2	5	0	1	1	0	23	15:30	1	220	42	1	8	0	0	2	14	0	0	0	0	288
3:45	0	26	5	0	1	0	0	1	6	0	0	0	0	39	15:45	3	203	27	1	15	2	0	5	9	0	0	0	0	265
4:00	0	13	6	0	3	2	0	0	1	0	1	0	0	26	16:00	1	183	38	1	9	3	0	5	7	0	0	0	0	247
4:15	0	23	3	0	0	0	0	5	3	0	0	0	0	34	16:15	0	195	32	0	8	2	0	1	7	0	0	0	0	245
4:30	0	47	6	0	0	1	0	2	13	0	0	0	0	69	16:30	0	227	54	1	6	2	0	7	5	0	0	0	0	302
4:45	0	49	7	1	3	1	0	3	5	0	0	1	0	70	16:45	0	192	32	1	8	4	0	5	5	0	0	0	0	247
5:00	1	24	12	0	8	0	0	2	1	0	0	0	0	48	17:00	2	265	37	0	5	0	0	0	7	0	0	0	0	316
5:15	0	41	9	0	3	3	0	0	7	0	1	0	0	64	17:15	0	207	33	2	7	0	0	3	8	0	0	0	0	260
5:30	0	66	18	1	5	1	0	3	6	0	0	1	0	101	17:30	0	260	20	0	2	1	0	2	2	0	0	0	0	287
5:45	0	58	14	0	3	2	0	1	4	0	0	0	0	82	17:45	2	174	24	1	8	0	0	7	0	0	0	0	0	216
6:00	0	54	12	1	4	3	0	0	4	0	1	1	0	80	18:00	0	177	24	0	2	3	0	3	4	0	0	0	0	213
6:15	0	64	24	0	5	2	0	0	7	0	0	0	0	102	18:15	0	142	26	1	2	2	0	3	3	0	0	0	0	179
6:30	0	100	25	1	7	6	0	1	13	0	1	0	0	154	18:30	0	134	23	0	6	1	0	2	7	0	0	0	0	173
6:45	1	107	56	0	7	1	0	0	6	0	0	0	0	178	18:45	0	115	13	1	7	1	0	4	4	0	0	0	0	145
7:00	2	92	41	1	6	1	0	0	8	0	0	0	0	151	19:00	0	101	12	0	4	1	0	1	7	0	0	0	0	126
7:15	0	101	44	0	10	3	0	0	9	0	1	0	0	168	19:15	0	91	13	1	3	0	0	3	3	0	0	0	0	114
7:30	0	122	49	1	10	2	0	0	11	0	0	0	0	195	19:30	0	87	9	0	5	2	0	6	4	0	0	0	0	113
7:45	1	188	54	0	14	2	0	1	11	0	0	0	0	271	19:45	0	75	9	1	2	2	0	1	3	0	0	0	0	93
8:00	1	107	38	1	12	1	0	1	9	0	0	0	0	170	20:00	0	64	7	0	3	2	0	2	1	0	0	0	0	79
8:15	1	115	35	0	9	3	0	3	6	0	1	0	0	173	20:15	0	66	14	1	1	0	0	3	4	0	0	0	0	89
8:30	0	111	35	0	12	4	0	1	5	0	1	0	0	169	20:30	0	69	7	0	1	0	0	2	4	0	0	0	0	83
8:45	2	115	27	1	14	3	0	0	9	1	0	0	0	172	20:45	0	57	3	0	5	1	0	2	3	0	0	0	0	71
9:00	0	90	34	1	25	2	0	0	7	0	0	0	0	159	21:00	0	46	2	1	1	2	0	4	2	0	0	0	0	58
9:15	1	109	34	0	35	3	0	1	9	1	0	0	0	193	21:15	1	52	5	0	3	1	0	5	1	0	0	0	0	68
9:30	0	77	35	1	19	3	0	1	18	1	0	0	0	155	21:30	0	46	3	1	2	1	0	2	3	0	0	0	0	58
9:45	1	95	43	0	13	4	0	2	16	0	0	0	0	174	21:45	0	48	5	0	3	1	0	4	7	0	0	0	0	68
10:00	1	64	31	1	12	1	0	0	16	2	1	0	0	129	22:00	0	42	7	1	2	1	0	2	4	0	0	0	0	59
10:15	2	80	37	0	11	2	0	1	12	0	0	0	0	145	22:15	0	49	4	0	1	0	0	6	2	0	0	0	0	62
10:30	0	83	44	1	18	3	0	1	13	0	0	0	0	163	22:30	0	34	5	0	2	0	0	2	4	0	0	0	0	47
10:45	0	80	36	0	16	2	0	5	13	0	0	0	0	152	22:45	0	33	3	1	1	0	0	3	3	0	0	0	0	44
11:00	1	93	36	0	13	2	0	0	7	0	0	0	0	152	23:00	0	32	5	0	1	0	0	0	1	0	0	0	0	39
11:15	1	88	32	1	12	1	0	5	15	0	0	0	0	155	23:15	0	18	7	1	0	1	0	5	4	0	0	0	0	36
11:30	1	100	36	0	18	4	0	2	12	0	0	0	0	173	23:30	0	36	4	0	2	1	0	2	5	0	0	0	0	50
11:45	1	108	24	1	11	2	0	2	17	0	0	0	0	166	23:45	0	23	3	0	0	0	0	4	2	0	0	0	0	32
TOTAL	18	2,872	979	16	366	86	0	69	349	5	12	7	0	4,779	TOTAL	15	5,714	1,020	25	353	63	0	148	311	5	2	0	0	7,656
AM PEAK HOUR AM PEAK VOLUME														7:30 AM 809	PM PEAK HOUR PM PEAK VOLUME														4:30 PM 1,125

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	33	8,586	1,999	41	719	149	0	217	660	10	14	7	0	12,435
% OF TOTAL	0.3%	69.0%	16.1%	0.3%	5.8%	1.2%	0.0%	1.7%	5.3%	0.1%	0.1%	0.1%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	68	17,084	3,655	80	1,442	318	0	488	###	18	25	10	0	24,562
% OF TOTAL	0.5%	137.4%	29.4%	0.6%	11.6%	2.6%	0.0%	3.9%	11.0%	0.1%	0.2%	0.1%	0.0%	100.0%

# 24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS11 Carmenita north of Alondra

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	23	3	0	4	4	0	4	3	0	0	0	0	41	12:00	0	114	24	1	11	0	0	4	11	0	0	0	0	165
0:15	0	23	1	0	3	1	0	4	2	0	0	0	0	34	12:15	0	104	20	0	14	1	0	2	7	0	0	0	0	148
0:30	0	17	2	0	3	1	0	8	5	0	0	0	0	36	12:30	1	137	37	1	11	2	0	5	12	0	0	1	0	207
0:45	0	17	0	0	2	0	0	3	6	0	0	0	0	28	12:45	0	90	25	0	18	2	0	3	11	0	0	0	0	149
1:00	0	10	4	0	2	3	0	4	6	0	0	0	0	29	13:00	1	125	24	1	14	1	0	5	9	2	0	0	0	182
1:15	0	9	2	0	1	1	0	4	3	0	0	0	0	20	13:15	1	130	29	1	13	2	0	4	10	0	0	0	0	190
1:30	0	15	1	0	5	0	0	2	1	0	0	0	0	24	13:30	1	106	21	0	17	4	0	3	14	0	0	0	0	166
1:45	0	5	1	0	0	1	0	1	1	0	0	0	0	9	13:45	0	115	27	1	12	2	0	2	9	0	0	0	0	168
2:00	0	12	2	0	1	2	0	2	2	0	0	0	0	21	14:00	1	109	25	0	13	2	0	7	12	0	0	0	0	169
2:15	0	8	0	0	3	0	0	2	0	0	0	0	0	13	14:15	2	127	22	1	23	2	0	1	12	0	0	0	0	190
2:30	0	14	0	0	0	1	0	0	5	0	0	0	0	20	14:30	1	128	25	0	16	2	0	1	10	0	0	1	0	184
2:45	0	7	5	0	4	1	0	2	3	0	0	0	0	22	14:45	0	119	24	1	12	1	0	1	9	0	0	0	0	167
3:00	0	10	4	0	1	2	0	0	1	0	0	0	0	18	15:00	1	136	29	0	6	1	0	7	15	0	0	0	0	195
3:15	0	24	4	0	0	2	0	1	1	0	0	0	0	32	15:15	1	129	21	1	15	1	0	3	13	1	0	0	0	185
3:30	0	37	3	0	4	2	0	0	3	0	0	0	0	49	15:30	3	158	22	0	11	2	0	8	7	0	0	0	0	211
3:45	1	53	7	0	6	1	0	0	3	0	1	0	0	72	15:45	2	168	22	1	11	2	0	6	11	0	0	0	0	223
4:00	0	23	6	0	1	1	0	2	3	0	0	0	0	36	16:00	0	140	26	0	6	2	0	9	12	0	0	0	0	195
4:15	0	49	7	0	2	0	0	1	2	0	0	1	0	62	16:15	1	124	19	1	12	4	0	6	10	0	0	0	0	177
4:30	1	68	19	0	6	3	0	2	1	0	0	0	0	100	16:30	1	138	15	0	11	3	0	2	7	0	0	0	0	177
4:45	0	112	11	1	3	3	0	0	4	0	1	0	0	135	16:45	0	176	25	1	8	4	0	5	4	1	1	0	0	225
5:00	0	56	20	0	4	2	0	3	3	0	0	0	0	88	17:00	0	204	33	0	6	0	0	5	11	1	0	0	0	260
5:15	0	68	19	1	2	1	0	1	3	0	0	0	0	95	17:15	0	201	14	1	6	3	0	3	7	0	0	0	0	235
5:30	0	110	15	0	5	4	0	2	4	0	0	0	0	140	17:30	0	172	20	0	4	1	0	7	7	0	0	0	0	211
5:45	0	97	13	0	4	2	0	1	5	0	0	0	0	122	17:45	0	178	18	1	8	3	0	2	2	0	0	0	0	212
6:00	0	89	24	1	3	0	0	0	9	0	0	0	0	126	18:00	0	159	13	0	9	2	0	4	10	0	0	0	0	197
6:15	0	78	18	1	9	2	0	0	7	0	0	0	0	115	18:15	0	160	15	1	8	4	0	5	10	0	0	0	0	203
6:30	0	112	35	0	4	0	0	1	7	0	0	0	0	159	18:30	0	121	16	1	4	1	0	3	11	0	1	0	0	158
6:45	0	115	37	1	4	3	0	0	6	0	0	0	0	166	18:45	0	142	17	1	10	2	0	1	7	0	0	0	0	180
7:00	2	93	28	1	8	3	0	0	9	0	0	0	0	144	19:00	0	116	14	0	9	1	0	3	9	0	1	0	0	153
7:15	1	122	32	1	9	1	0	0	11	0	1	0	0	178	19:15	0	119	11	1	4	2	0	3	7	1	0	0	0	148
7:30	1	119	50	0	5	2	0	3	7	0	0	0	0	187	19:30	0	86	9	0	6	2	0	1	11	0	0	0	0	115
7:45	1	173	48	1	12	1	0	2	12	0	0	0	0	250	19:45	1	76	10	1	3	2	0	3	6	0	0	0	0	102
8:00	1	115	30	0	18	2	0	1	10	0	0	0	0	177	20:00	0	73	11	0	1	0	0	3	3	0	0	0	0	91
8:15	1	131	42	1	9	2	0	0	13	0	0	0	0	199	20:15	0	61	7	1	3	1	0	1	5	0	0	0	0	79
8:30	0	139	26	0	17	3	0	4	8	0	0	0	0	197	20:30	0	60	5	0	1	0	0	4	4	0	1	0	0	75
8:45	1	161	38	1	9	2	0	2	8	0	1	0	0	223	20:45	0	54	6	0	6	1	0	0	1	0	0	0	0	68
9:00	0	108	28	0	14	1	0	1	11	0	0	0	0	163	21:00	0	67	7	1	4	0	0	2	4	0	1	0	0	86
9:15	1	92	30	1	14	4	0	5	16	0	0	0	0	163	21:15	0	41	8	0	4	0	0	1	9	0	0	0	0	63
9:30	0	100	24	1	18	3	0	4	12	0	0	0	0	162	21:30	1	53	6	1	4	0	0	1	4	0	0	0	0	70
9:45	0	106	24	1	13	2	0	2	11	0	0	0	0	159	21:45	0	46	6	0	1	1	0	4	0	0	0	0	0	58
10:00	1	89	36	0	18	2	0	10	16	0	0	0	0	172	22:00	0	49	7	0	3	4	0	1	3	0	0	0	0	67
10:15	2	74	30	1	15	4	0	3	10	0	0	0	0	139	22:15	0	52	6	0	1	1	0	2	4	0	0	0	0	66
10:30	0	76	28	0	13	1	0	3	20	0	0	0	0	141	22:30	0	39	3	1	1	1	0	0	4	0	0	0	0	49
10:45	0	88	33	1	17	4	0	2	24	0	1	0	0	170	22:45	0	34	5	0	1	2	0	1	2	0	0	0	0	45
11:00	0	91	29	0	14	1	0	5	14	2	0	0	0	156	23:00	0	39	2	0	1	3	0	4	5	0	1	0	0	55
11:15	0	80	31	1	18	3	0	6	13	0	0	0	0	152	23:15	0	25	2	1	1	0	0	9	2	0	0	0	0	40
11:30	1	111	31	0	13	5	0	0	14	0	0	0	0	175	23:30	1	31	3	0	1	2	0	4	5	0	0	0	0	47
11:45	0	118	17	0	19	0	0	3	15	0	0	0	0	172	23:45	0	20	2	0	0	1	0	4	3	0	0	0	0	30
TOTAL	15	3,447	898	16	359	89	0	106	353	2	5	1	0	5,291	TOTAL	20	5,051	758	23	364	80	0	165	361	6	6	2	0	6,836

AM PEAK HOUR 7:45 AM  
AM PEAK VOLUME 823

PM PEAK HOUR 4:45 PM  
PM PEAK VOLUME 931

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	35	8,498	1,656	39	723	169	0	271	714	8	11	3	0	12,127
% OF TOTAL	0.3%	70.1%	13.7%	0.3%	6.0%	1.4%	0.0%	2.2%	5.9%	0.1%	0.1%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS12 Valley View north of Alondra

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	27	6	0	2	1	0	2	1	0	0	0	0	39	12:00	2	112	29	0	17	1	0	4	6	0	0	0	0	171
0:15	0	25	1	0	0	1	0	0	0	0	0	0	0	27	12:15	0	137	29	0	17	8	0	3	5	0	1	0	0	200
0:30	1	28	3	0	0	1	0	0	2	0	0	0	0	35	12:30	2	120	39	0	15	6	0	2	7	0	0	0	0	191
0:45	2	15	2	0	3	0	0	0	0	0	0	0	0	22	12:45	0	119	33	0	15	4	0	0	3	0	0	0	0	174
1:00	0	20	2	0	1	2	0	0	1	0	0	0	0	26	13:00	2	120	39	0	18	7	0	2	13	0	0	0	0	201
1:15	0	13	6	0	2	1	0	0	1	0	0	0	0	23	13:15	1	147	45	0	17	7	0	1	9	0	0	0	0	227
1:30	1	17	2	0	3	0	0	0	2	0	0	0	0	25	13:30	0	140	42	0	15	3	0	4	12	0	0	0	0	216
1:45	1	14	3	0	4	0	0	0	1	0	0	0	0	23	13:45	0	149	37	0	17	2	0	3	8	0	0	0	0	216
2:00	0	13	1	0	0	1	0	0	1	0	0	0	0	16	14:00	0	150	39	0	10	5	0	3	7	0	1	0	0	215
2:15	0	20	3	0	2	0	0	0	0	0	0	0	0	25	14:15	0	165	50	0	14	3	0	1	6	0	0	0	0	239
2:30	0	19	7	0	1	2	0	0	0	0	0	0	0	29	14:30	2	176	57	0	16	5	0	3	7	0	0	0	0	266
2:45	0	18	4	0	3	0	0	0	3	0	0	0	0	28	14:45	2	184	63	0	14	1	0	1	5	0	0	0	0	270
3:00	0	21	5	0	1	1	0	0	3	0	0	0	0	31	15:00	0	171	54	0	12	1	0	2	8	0	0	0	0	248
3:15	0	17	7	0	3	2	0	0	1	0	0	0	0	30	15:15	0	160	54	0	10	1	0	2	5	1	0	0	0	233
3:30	0	30	5	0	1	1	0	1	1	0	0	0	0	39	15:30	1	204	44	0	8	6	0	2	7	0	0	0	0	272
3:45	0	28	6	0	2	0	0	0	1	0	0	0	0	37	15:45	0	166	48	0	11	0	0	3	6	0	0	0	0	234
4:00	0	31	5	0	6	1	0	0	4	0	0	0	0	47	16:00	0	183	40	0	13	6	0	1	5	0	0	0	0	248
4:15	0	28	4	0	1	2	0	0	1	0	0	0	0	36	16:15	0	188	54	0	7	4	0	2	5	0	0	0	0	260
4:30	0	42	10	0	1	3	0	2	4	0	0	0	0	62	16:30	1	215	49	0	15	2	0	3	4	0	0	0	0	289
4:45	0	59	11	0	0	5	0	0	3	0	0	0	0	78	16:45	0	225	39	0	8	4	0	7	1	0	0	0	0	284
5:00	1	52	14	0	2	2	0	0	3	0	0	0	0	74	17:00	1	232	42	0	9	3	0	2	4	0	0	0	0	293
5:15	0	53	20	0	4	1	0	0	3	0	0	0	0	81	17:15	3	246	46	0	10	0	0	2	2	0	0	0	0	309
5:30	0	85	24	0	2	1	0	1	6	0	0	0	0	119	17:30	2	233	37	0	3	0	0	1	8	0	0	0	0	284
5:45	1	112	33	0	2	2	0	2	2	0	0	0	0	154	17:45	0	242	48	0	8	0	0	0	4	0	0	0	0	302
6:00	1	85	23	0	8	4	0	1	4	0	0	0	0	126	18:00	0	175	31	0	6	1	0	1	5	0	0	0	0	219
6:15	0	104	34	0	14	1	0	1	10	0	0	0	0	164	18:15	2	205	34	0	5	3	0	1	2	0	0	0	0	252
6:30	0	93	26	0	12	2	0	0	7	0	0	0	0	140	18:30	1	178	28	0	1	1	0	0	5	0	0	0	0	214
6:45	0	103	42	0	15	2	0	0	8	0	1	0	0	171	18:45	2	156	27	0	3	2	0	2	7	0	0	0	0	199
7:00	0	94	32	0	8	2	0	0	10	0	0	0	0	146	19:00	1	133	18	0	4	0	0	1	3	0	0	0	0	160
7:15	0	123	40	0	13	3	0	0	11	0	0	0	0	190	19:15	1	138	22	0	3	1	0	0	4	0	0	0	0	169
7:30	1	117	27	1	14	2	0	1	5	1	0	0	0	169	19:30	1	122	24	0	0	0	0	0	2	0	0	0	0	149
7:45	1	169	38	0	13	3	0	0	9	0	0	0	0	233	19:45	0	129	24	0	3	1	0	0	2	0	1	0	0	160
8:00	1	146	26	0	9	3	0	1	7	0	0	0	0	193	20:00	1	126	19	0	2	1	0	1	1	0	0	0	0	151
8:15	0	117	32	0	7	5	0	1	6	0	0	0	0	168	20:15	0	109	14	0	4	0	0	0	4	0	0	0	0	131
8:30	0	125	33	0	13	3	0	0	11	0	0	0	0	185	20:30	0	105	17	0	2	0	0	1	1	0	0	0	0	126
8:45	0	113	38	0	6	2	0	1	7	1	0	0	0	168	20:45	0	111	13	0	2	1	0	0	2	0	0	0	0	129
9:00	0	94	29	0	18	5	0	1	4	0	0	0	0	151	21:00	0	103	10	0	0	1	0	0	1	0	0	0	0	115
9:15	0	98	32	0	25	3	0	1	9	0	0	0	0	168	21:15	0	83	19	0	2	2	0	0	0	0	0	0	0	106
9:30	0	91	22	0	16	2	0	0	8	0	0	0	0	139	21:30	1	76	4	0	2	0	0	0	4	0	0	0	0	87
9:45	0	106	29	0	22	6	0	0	11	0	1	0	0	175	21:45	0	77	14	0	2	0	0	0	2	0	0	0	0	95
10:00	0	104	35	0	13	3	0	0	6	0	0	0	0	161	22:00	0	74	10	0	4	0	0	0	1	0	0	0	0	89
10:15	0	116	28	0	11	2	0	0	15	1	0	0	0	173	22:15	0	88	7	0	1	1	0	1	3	0	0	0	0	101
10:30	0	92	34	0	13	0	0	0	15	0	0	0	0	154	22:30	0	81	8	0	2	1	0	0	1	0	0	0	0	93
10:45	0	121	37	0	21	6	0	2	11	0	0	0	0	198	22:45	0	68	8	0	3	1	0	3	3	0	0	0	0	86
11:00	0	108	31	0	12	4	0	1	8	0	0	0	0	164	23:00	0	64	4	0	0	1	0	0	2	0	0	0	0	71
11:15	0	133	29	0	16	3	0	2	5	0	0	0	0	188	23:15	1	52	2	0	2	1	0	1	0	0	0	0	0	59
11:30	0	139	36	0	11	6	0	6	18	0	0	0	0	216	23:30	0	57	5	0	3	0	0	1	2	0	0	0	0	68
11:45	1	129	33	0	15	2	0	3	15	0	0	0	0	198	23:45	0	36	2	0	2	1	0	1	3	0	0	0	0	45
TOTAL	12	3,507	950	1	371	104	0	30	264	3	2	0	0	5,244	TOTAL	30	6,730	1,421	0	357	99	0	68	207	1	3	0	0	8,916
AM PEAK HOUR AM PEAK VOLUME														7:15 AM 785	PM PEAK HOUR PM PEAK VOLUME														5:00 PM 1,188

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	42	10,237	2,371	1	728	203	0	98	471	4	5	0	0	14,160
% OF TOTAL	0.3%	72.3%	16.7%	0.0%	5.1%	1.4%	0.0%	0.7%	3.3%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	86	20,388	4,453	1	1,395	401	0	224	###	10	9	0	0	27,981
% OF TOTAL	0.6%	144.0%	31.4%	0.0%	9.9%	2.8%	0.0%	1.6%	7.2%	0.1%	0.1%	0.0%	0.0%	100.0%



24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, April 20, 2021  
JOB #: SC2721

CITY: Santa Fe Springs  
LOCATION: CLASS12 Valley View north of Alondra

AM	SOUTHBOUND													TOTAL	PM	SOUTHBOUND													TOTAL
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13		Time	1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	27	3	0	0	0	0	0	2	0	0	0	0	32	12:00	1	144	31	0	19	3	0	1	16	0	0	0	0	215
0:15	0	16	1	0	1	0	0	1	1	0	0	0	0	20	12:15	1	148	33	0	11	4	0	2	14	0	0	0	0	213
0:30	0	14	2	0	1	1	0	0	1	0	0	0	0	19	12:30	1	123	34	0	13	4	0	4	8	1	0	0	0	188
0:45	0	18	2	0	0	2	0	0	2	0	0	0	0	24	12:45	1	108	33	0	7	4	0	1	13	0	1	0	0	168
1:00	0	9	2	0	1	1	0	0	2	0	0	0	0	15	13:00	1	146	36	0	16	2	0	4	8	0	0	0	0	213
1:15	1	9	1	0	1	2	0	1	1	0	0	0	0	16	13:15	2	123	20	0	8	2	0	3	10	0	0	0	0	168
1:30	0	7	0	0	2	0	0	0	3	0	0	0	0	12	13:30	0	139	38	0	13	4	0	1	6	0	0	0	0	201
1:45	1	6	2	0	0	1	0	0	1	0	0	0	0	11	13:45	0	115	30	0	10	5	0	3	9	0	0	0	0	172
2:00	0	7	0	0	3	2	0	0	0	0	0	0	0	12	14:00	0	154	31	0	11	2	0	2	11	0	0	0	0	211
2:15	0	13	0	0	0	0	0	0	1	0	0	0	0	14	14:15	0	160	31	0	15	1	0	4	9	0	0	0	0	220
2:30	0	16	4	0	3	1	0	0	1	0	0	0	0	25	14:30	0	198	33	0	8	3	0	1	9	0	0	0	0	252
2:45	0	30	6	0	1	1	0	0	2	0	0	0	0	40	14:45	0	129	37	0	12	1	0	5	10	0	0	0	0	194
3:00	0	34	4	0	5	1	0	0	5	0	0	0	0	49	15:00	1	199	42	0	13	2	0	1	4	0	0	0	0	262
3:15	0	20	6	0	2	1	0	0	3	0	0	0	0	32	15:15	2	147	36	0	12	5	0	2	6	0	0	0	0	210
3:30	0	34	4	0	1	3	0	1	4	0	0	0	0	47	15:30	3	206	42	0	10	5	0	3	11	0	0	0	0	280
3:45	0	32	10	0	4	1	0	0	5	0	0	0	0	52	15:45	0	184	30	0	7	2	0	2	8	1	0	0	0	234
4:00	1	35	12	0	3	0	0	1	5	0	0	0	0	57	16:00	0	191	47	0	12	2	0	2	6	0	0	0	0	260
4:15	0	50	7	0	5	0	0	0	6	0	0	0	0	68	16:15	1	167	30	0	8	5	0	2	6	0	0	0	0	219
4:30	0	51	16	0	1	1	0	0	4	0	0	0	0	73	16:30	1	200	49	0	13	5	0	2	8	0	0	0	0	278
4:45	2	68	29	0	3	1	0	1	4	0	0	0	0	108	16:45	0	183	30	0	9	3	0	2	5	0	0	0	0	232
5:00	0	63	26	0	1	3	0	0	8	0	0	0	0	101	17:00	2	273	42	0	9	1	0	3	7	0	0	0	0	337
5:15	0	87	42	0	4	1	0	1	5	0	0	0	0	140	17:15	1	229	39	0	11	2	0	7	5	0	0	0	0	294
5:30	1	100	41	0	4	1	0	0	8	0	0	0	0	155	17:30	1	247	23	0	4	0	0	5	2	0	0	0	0	282
5:45	0	126	29	0	5	2	0	1	12	0	0	0	0	175	17:45	1	147	21	0	3	2	0	5	5	0	0	0	0	184
6:00	1	88	28	0	9	2	0	2	11	0	0	0	0	141	18:00	0	158	25	0	6	5	0	3	11	0	0	0	0	208
6:15	1	159	29	0	12	2	0	0	6	0	0	0	0	209	18:15	0	139	20	0	6	2	0	3	1	0	0	0	0	171
6:30	0	126	50	0	16	4	0	3	6	0	0	0	0	205	18:30	1	128	17	0	3	0	0	3	3	0	0	0	0	155
6:45	1	183	34	0	16	2	0	0	9	0	0	0	0	245	18:45	0	88	10	0	2	3	0	1	2	0	0	0	0	106
7:00	1	177	49	0	11	5	0	0	5	0	0	0	0	248	19:00	2	111	11	0	3	0	0	4	4	0	0	0	0	135
7:15	0	194	32	0	8	3	0	0	11	0	0	0	0	248	19:15	1	107	10	0	3	2	0	0	3	0	0	0	0	126
7:30	0	219	52	0	17	4	0	0	9	0	0	0	0	301	19:30	0	82	14	0	1	0	0	5	3	0	0	0	0	105
7:45	0	239	45	0	12	1	0	3	8	0	0	0	0	308	19:45	0	77	12	0	1	0	0	0	4	0	0	0	0	94
8:00	2	208	23	0	13	1	0	0	6	0	0	0	0	253	20:00	0	89	12	0	2	0	0	1	4	0	0	0	0	108
8:15	1	204	42	0	13	3	0	1	11	1	0	0	0	276	20:15	0	60	14	0	2	1	0	0	0	0	0	0	0	77
8:30	1	157	34	0	8	4	0	0	14	1	0	0	0	219	20:30	0	73	11	0	1	1	0	1	4	0	0	0	0	91
8:45	0	111	28	0	16	1	0	0	6	0	0	0	0	162	20:45	0	69	5	0	1	1	0	0	1	0	0	0	0	77
9:00	0	137	25	0	13	6	0	1	7	0	0	0	0	189	21:00	0	81	6	0	0	0	0	0	1	0	1	0	0	89
9:15	0	127	32	0	15	7	0	4	7	0	0	0	0	192	21:15	0	50	12	0	0	0	0	0	1	0	0	0	0	63
9:30	0	103	33	0	12	1	0	2	9	0	1	0	0	161	21:30	1	51	4	0	3	1	0	0	1	0	0	0	0	61
9:45	0	104	27	0	6	4	0	0	4	0	0	0	0	145	21:45	0	48	4	0	2	2	0	0	2	0	0	0	0	58
10:00	1	105	25	0	13	7	0	1	10	0	0	0	0	162	22:00	0	48	8	0	1	0	0	0	2	0	1	0	0	60
10:15	0	108	28	0	17	4	0	3	8	0	0	0	0	168	22:15	0	49	2	0	1	1	0	0	4	0	0	0	0	57
10:30	0	135	36	0	14	5	0	0	11	1	0	0	0	202	22:30	0	49	6	0	1	0	0	0	6	0	0	0	0	62
10:45	1	111	28	0	21	4	0	1	7	0	0	0	0	173	22:45	0	34	2	0	0	1	0	0	3	0	0	0	0	40
11:00	0	113	26	0	17	0	0	3	7	1	0	0	0	167	23:00	1	69	6	0	1	2	0	1	1	0	0	0	0	81
11:15	0	97	31	0	16	3	0	2	6	0	0	0	0	155	23:15	0	29	2	0	2	1	0	0	1	0	0	0	0	35
11:30	2	117	26	0	6	2	0	1	7	0	0	0	0	161	23:30	0	51	5	0	5	1	0	0	2	0	0	0	0	64
11:45	0	128	30	0	12	3	0	3	10	0	0	0	0	186	23:45	0	29	4	0	2	1	0	0	2	0	0	0	0	38
TOTAL	18	4,322	1,042	0	364	104	0	37	281	4	1	0	0	6,173	TOTAL	26	5,829	1,040	0	303	94	0	89	262	2	3	0	0	7,648
AM PEAK HOUR														7:30 AM	PM PEAK HOUR														4:45 PM
AM PEAK VOLUME														1,138	PM PEAK VOLUME														1,145

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
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CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	44	####	2,082	0	667	198	0	126	543	6	4	0	0	13,821
% OF TOTAL	0.3%	73.4%	15.1%	0.0%	4.8%	1.4%	0.0%	0.9%	3.9%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

# Appendix C:

## Level of Service Calculations

## **EXISTING BASE LOS CALCULATIONS**

**Project Title:** Santa Fe Springs  
**Intersection:** 1 - Norwalk Blvd & Washington Blvd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	86	1,600	0.031	N-S(1): 0.268 *
	TH	2.00	396	3,200	0.124	N-S(2): 0.257
	LT	1.00	271	1,600	0.169 *	E-W(1): 0.307 *
Westbound	RT	0.00	132	0	0.000	E-W(2): 0.292
	TH	3.00	1,052	4,800	0.247	V/C: 0.575
	LT	1.00	50	1,600	0.031 *	Lost Time: 0.100
Northbound	RT	1.00	30	1,600	0.003	ITS: 0.000
	TH	2.00	317	3,200	0.099 *	
	LT	1.00	214	1,600	0.133	
Eastbound	RT	1.00	194	1,600	0.055	ICU: 0.675
	TH	2.00	882	3,200	0.276 *	
	LT	1.00	72	1,600	0.045	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	102	1,600	0.024	N-S(1): 0.347 *
	TH	2.00	449	3,200	0.140	N-S(2): 0.315
	LT	1.00	231	1,600	0.144 *	E-W(1): 0.383 *
Westbound	RT	0.00	216	0	0.000	E-W(2): 0.370
	TH	3.00	1,186	4,800	0.292	V/C: 0.730
	LT	1.00	69	1,600	0.043 *	Lost Time: 0.100
Northbound	RT	1.00	45	1,600	0.007	ITS: 0.000
	TH	2.00	648	3,200	0.203 *	
	LT	1.00	281	1,600	0.175	
Eastbound	RT	1.00	247	1,600	0.067	ICU: 0.830
	TH	2.00	1,087	3,200	0.340 *	
	LT	1.00	126	1,600	0.078	LOS: D

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 2 - Sorensen Ave & Slauson Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	99	1,600	0.008	N-S(1): 0.161 *
	TH	2.00	210	3,200	0.065	N-S(2): 0.125
	LT	1.00	176	1,600	0.110 *	E-W(1): 0.229
Westbound	RT	0.00	160	0	0.000	E-W(2): 0.331 *
	TH	3.00	911	4,800	0.223 *	V/C: 0.492
	LT	1.00	23	1,600	0.014	Lost Time: 0.100
Northbound	RT	0.00	9	0	0.000	ITS: 0.000
	TH	2.00	153	3,200	0.051 *	
	LT	1.00	97	1,600	0.060	
Eastbound	RT	0.00	181	0	0.000	ICU: 0.592
	TH	3.00	852	4,800	0.215	
	LT	1.00	172	1,600	0.108 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	148	1,600	0.052	N-S(1): 0.256 *
	TH	2.00	209	3,200	0.065	N-S(2): 0.129
	LT	1.00	237	1,600	0.148 *	E-W(1): 0.274
Westbound	RT	0.00	241	0	0.000	E-W(2): 0.305 *
	TH	3.00	832	4,800	0.224 *	V/C: 0.561
	LT	1.00	48	1,600	0.030	Lost Time: 0.100
Northbound	RT	0.00	37	0	0.000	ITS: 0.000
	TH	2.00	308	3,200	0.108 *	
	LT	1.00	103	1,600	0.064	
Eastbound	RT	0.00	110	0	0.000	ICU: 0.661
	TH	3.00	1,060	4,800	0.244	
	LT	1.00	129	1,600	0.081 *	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 3 - Norwalk Ave & Los Nietos Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	43	1,600	0.009	N-S(1): 0.151
	TH	2.00	459	3,200	0.143 *	N-S(2): 0.188 *
	LT	1.00	101	1,600	0.063	E-W(1): 0.140 *
Westbound	RT	0.00	125	0	0.000	E-W(2): 0.121
	TH	2.00	149	3,200	0.086	V/C: 0.328
	LT	1.00	55	1,600	0.034 *	Lost Time: 0.100
Northbound	RT	1.00	86	1,600	0.037	ITS: 0.000
	TH	2.00	282	3,200	0.088	
	LT	1.00	72	1,600	0.045 *	
Eastbound	RT	0.00	170	1,600	0.106 *	ICU: 0.428
	TH	2.00	143	1,600	0.089	
	LT	1.00	56	1,600	0.035	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	93	1,600	0.041	N-S(1): 0.241 *
	TH	2.00	489	3,200	0.153	N-S(2): 0.238
	LT	1.00	96	1,600	0.060 *	E-W(1): 0.140
Westbound	RT	0.00	190	0	0.000	E-W(2): 0.221 *
	TH	2.00	412	3,200	0.188 *	V/C: 0.462
	LT	1.00	85	1,600	0.053	Lost Time: 0.100
Northbound	RT	1.00	55	1,600	0.008	ITS: 0.000
	TH	2.00	579	3,200	0.181 *	
	LT	1.00	136	1,600	0.085	
Eastbound	RT	0.00	126	0	0.000	ICU: 0.562
	TH	2.00	151	3,200	0.087	
	LT	1.00	54	1,600	0.033 *	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 4 - Santa Fe Springs Rd & Los Nietos Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	28	1,600	0.008	N-S(1): 0.225 *
	TH	2.00	544	3,200	0.170	N-S(2): 0.221
	LT	1.00	119	1,600	0.074 *	E-W(1): 0.234 *
Westbound	RT	1.00	149	1,600	0.056	E-W(2): 0.212
	TH	1.00	311	1,600	0.194	V/C: 0.459
	LT	1.00	119	1,600	0.074 *	Lost Time: 0.100
Northbound	RT	1.00	40	1,600	0.000	ITS: 0.000
	TH	2.00	483	3,200	0.151 *	
	LT	1.00	82	1,600	0.051	
Eastbound	RT	1.00	95	1,600	0.034	ICU: 0.559
	TH	1.00	256	1,600	0.160 *	
	LT	1.00	29	1,600	0.018	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	84	1,600	0.036	N-S(1): 0.369 *
	TH	2.00	659	3,200	0.206	N-S(2): 0.262
	LT	1.00	171	1,600	0.107 *	E-W(1): 0.257
Westbound	RT	1.00	224	1,600	0.086	E-W(2): 0.298 *
	TH	1.00	425	1,600	0.266 *	V/C: 0.667
	LT	1.00	62	1,600	0.039	Lost Time: 0.100
Northbound	RT	1.00	61	1,600	0.018	ITS: 0.000
	TH	2.00	839	3,200	0.262 *	
	LT	1.00	90	1,600	0.056	
Eastbound	RT	1.00	81	1,600	0.022	ICU: 0.767
	TH	1.00	349	1,600	0.218	
	LT	1.00	52	1,600	0.032 *	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 5 - I-605 SB Ramps & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : EBR, WBR  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	71	1,600	0.000	N-S(1): 0.116 *
	TH	0.03	3	48	0.062	N-S(2): 0.075
	LT	1.97	197	2,837	0.069 *	E-W(1): 0.319
Westbound	RT	1.00	884	1,600	0.483 *	E-W(2): 0.677 *
	TH	2.00	767	3,200	0.240	V/C: 0.793
	LT	1.00	7	1,600	0.004	Lost Time: 0.100
Northbound	RT	0.00	16	0	0.000	ITS: 0.000
	TH	1.00	38	1,600	0.047 *	
	LT	0.00	22	1,600	0.013	
Eastbound	RT	1.00	16	1,600	0.000	ICU: 0.893
	TH	2.00	1,007	3,200	0.315	
	LT	1.00	310	1,600	0.194 *	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	72	1,600	0.000	N-S(1): 0.086 *
	TH	0.13	8	206	0.039	N-S(2): 0.052
	LT	1.87	116	2,694	0.043 *	E-W(1): 0.303
Westbound	RT	1.00	1,194	1,600	0.703 *	E-W(2): 0.844 *
	TH	2.00	965	3,200	0.302	V/C: 0.930
	LT	1.00	9	1,600	0.006	Lost Time: 0.100
Northbound	RT	0.00	10	0	0.000	ITS: 0.000
	TH	1.00	39	1,600	0.043 *	
	LT	0.00	20	1,600	0.013	
Eastbound	RT	1.00	67	1,600	0.029	ICU: 1.030
	TH	2.00	952	3,200	0.297	
	LT	1.00	226	1,600	0.141 *	LOS: F

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 6 - I-605 NB Ramps & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.062 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.062 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.352
Westbound	RT	1.00	350	1,600	0.219	E-W(2): 0.371 *
	TH	3.00	1,434	4,800	0.299 *	V/C: 0.433
	LT	1.00	2	1,600	0.001	Lost Time: 0.100
Northbound	RT	1.00	6	1,600	0.003	ITS: 0.000
	TH	0.51	51	816	0.062 *	
	LT	0.49	49	784	0.062 *	
Eastbound	RT	0.00	42	0	0.000	ICU: 0.533
	TH	3.00	1,646	4,800	0.351	
	LT	1.00	116	1,600	0.072 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.042 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.042 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.307
Westbound	RT	1.00	243	1,600	0.152	E-W(2): 0.445 *
	TH	3.00	1,846	4,800	0.384 *	V/C: 0.487
	LT	1.00	9	1,600	0.005	Lost Time: 0.100
Northbound	RT	1.00	21	1,600	0.010	ITS: 0.000
	TH	0.35	23	553	0.042 *	
	LT	0.65	44	1,047	0.042 *	
Eastbound	RT	0.00	50	0	0.000	ICU: 0.587
	TH	3.00	1,402	4,800	0.302	
	LT	1.00	98	1,600	0.061 *	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 7 - Orr and Day Rd & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	329	1,600	0.170 *	N-S(1): 0.085
	TH	2.00	170	3,200	0.053	N-S(2): 0.233 *
	LT	1.00	32	1,600	0.020	E-W(1): 0.347 *
Westbound	RT	0.00	7	0	0.000	E-W(2): 0.321
	TH	3.00	1,198	4,800	0.251	V/C: 0.580
	LT	1.00	47	1,600	0.029 *	Lost Time: 0.100
Northbound	RT	0.00	102	0	0.000	ITS: 0.000
	TH	2.00	106	3,200	0.065	
	LT	2.00	180	2,880	0.063 *	
Eastbound	RT	0.00	93	0	0.000	ICU: 0.680
	TH	3.00	1,434	4,800	0.318 *	
	LT	1.00	112	1,600	0.070	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	512	1,600	0.269 *	N-S(1): 0.132
	TH	2.00	323	3,200	0.101	N-S(2): 0.335 *
	LT	1.00	56	1,600	0.035	E-W(1): 0.309
Westbound	RT	0.00	10	0	0.000	E-W(2): 0.372 *
	TH	3.00	1,292	4,800	0.271 *	V/C: 0.707
	LT	1.00	73	1,600	0.046	Lost Time: 0.100
Northbound	RT	0.00	108	0	0.000	ITS: 0.000
	TH	2.00	204	3,200	0.097	
	LT	2.00	190	2,880	0.066 *	
Eastbound	RT	0.00	108	0	0.000	ICU: 0.807
	TH	3.00	1,155	4,800	0.263	
	LT	1.00	162	1,600	0.101 *	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 8 - Pioneer Blvd & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	24	1,600	0.000	N-S(1): 0.113 *
	TH	2.00	110	3,200	0.034	N-S(2): 0.112
	LT	1.00	112	1,600	0.070 *	E-W(1): 0.325 *
Westbound	RT	0.00	72	0	0.000	E-W(2): 0.277
	TH	3.00	1,120	4,800	0.248	V/C: 0.438
	LT	1.00	47	1,600	0.029 *	Lost Time: 0.100
Northbound	RT	1.00	92	1,600	0.043 *	ITS: 0.000
	TH	2.00	100	3,200	0.031	
	LT	1.00	126	1,600	0.078	
Eastbound	RT	0.00	140	0	0.000	ICU: 0.538
	TH	3.00	1,280	4,800	0.296 *	
	LT	1.00	47	1,600	0.029	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	54	1,600	0.026	N-S(1): 0.103
	TH	2.00	167	3,200	0.052 *	N-S(2): 0.136 *
	LT	1.00	82	1,600	0.051	E-W(1): 0.323 *
Westbound	RT	0.00	97	0	0.000	E-W(2): 0.291
	TH	3.00	1,228	4,800	0.276	V/C: 0.459
	LT	1.00	118	1,600	0.074 *	Lost Time: 0.100
Northbound	RT	1.00	75	1,600	0.010	ITS: 0.000
	TH	2.00	167	3,200	0.052	
	LT	1.00	134	1,600	0.084 *	
Eastbound	RT	0.00	184	0	0.000	ICU: 0.559
	TH	3.00	1,012	4,800	0.249 *	
	LT	1.00	25	1,600	0.015	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 9 - Norwalk Blvd & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	169	1,600	0.000	N-S(1):	0.190
	TH	2.00	421	3,200	0.131 *	N-S(2):	0.229 *
	LT	1.00	62	1,600	0.039	E-W(1):	0.202
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.330 *
	TH	3.00	886	4,800	0.201 *	V/C:	0.559
	LT	1.00	52	1,600	0.032	Lost Time:	0.100
Northbound	RT	1.00	54	1,600	0.017	ITS:	0.000
	TH	2.00	484	3,200	0.151	ICU:	0.659
	LT	1.00	156	1,600	0.098 *		
Eastbound	RT	1.00	168	1,600	0.056		
	TH	3.00	816	4,800	0.170	LOS:	B
	LT	1.00	207	1,600	0.129 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	200	1,600	0.059	N-S(1):	0.220
	TH	2.00	597	3,200	0.186 *	N-S(2):	0.278 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.256
Westbound	RT	0.00	55	0	0.000	E-W(2):	0.262 *
	TH	3.00	886	4,800	0.196 *	V/C:	0.540
	LT	1.00	98	1,600	0.061	Lost Time:	0.100
Northbound	RT	1.00	91	1,600	0.026	ITS:	0.000
	TH	2.00	464	3,200	0.145	ICU:	0.640
	LT	1.00	148	1,600	0.092 *		
Eastbound	RT	1.00	184	1,600	0.115		
	TH	3.00	935	4,800	0.195	LOS:	B
	LT	1.00	105	1,600	0.066 *		

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 10 - Santa Fe Springs Rd & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	119	1,600	0.026	N-S(1):	0.191
	TH	2.00	571	3,200	0.178 *	N-S(2):	0.230 *
	LT	1.00	44	1,600	0.027	E-W(1):	0.163
Westbound	RT	1.00	123	1,600	0.063	E-W(2):	0.271 *
	TH	3.00	838	4,800	0.174 *	V/C:	0.501
	LT	1.00	56	1,600	0.035	Lost Time:	0.100
Northbound	RT	1.00	60	1,600	0.020	ITS:	0.000
	TH	2.00	525	3,200	0.164		
	LT	1.00	83	1,600	0.052 *		
Eastbound	RT	1.00	101	1,600	0.037	ICU:	0.601
	TH	3.00	615	4,800	0.128		
	LT	1.00	155	1,600	0.097 *	LOS:	B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	198	1,600	0.079	N-S(1):	0.282 *
	TH	2.00	678	3,200	0.212	N-S(2):	0.270
	LT	1.00	84	1,600	0.053 *	E-W(1):	0.218
Westbound	RT	1.00	62	1,600	0.012	E-W(2):	0.237 *
	TH	3.00	717	4,800	0.149 *	V/C:	0.519
	LT	1.00	68	1,600	0.043	Lost Time:	0.100
Northbound	RT	1.00	89	1,600	0.034	ITS:	0.000
	TH	2.00	733	3,200	0.229 *		
	LT	1.00	93	1,600	0.058		
Eastbound	RT	1.00	90	1,600	0.027	ICU:	0.619
	TH	3.00	840	4,800	0.175		
	LT	1.00	142	1,600	0.088 *	LOS:	B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 11 - Shoemaker Ave & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	71	0	0.000	N-S(1): 0.107
	TH	2.00	315	3,200	0.121 *	N-S(2): 0.206 *
	LT	1.00	18	1,600	0.011	E-W(1): 0.153
Westbound	RT	0.00	25	0	0.000	E-W(2): 0.225 *
	TH	3.00	786	4,800	0.169 *	V/C: 0.431
	LT	1.00	43	1,600	0.027	Lost Time: 0.100
Northbound	RT	0.00	22	0	0.000	ITS: 0.000
	TH	2.00	285	3,200	0.096	
	LT	1.00	137	1,600	0.085 *	
Eastbound	RT	0.00	128	0	0.000	ICU: 0.531
	TH	3.00	480	4,800	0.126	
	LT	1.00	89	1,600	0.056 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	75	0	0.000	N-S(1): 0.167
	TH	2.00	347	3,200	0.132 *	N-S(2): 0.211 *
	LT	1.00	28	1,600	0.018	E-W(1): 0.240 *
Westbound	RT	0.00	23	0	0.000	E-W(2): 0.177
	TH	3.00	611	4,800	0.132	V/C: 0.451
	LT	1.00	34	1,600	0.021 *	Lost Time: 0.100
Northbound	RT	0.00	67	0	0.000	ITS: 0.000
	TH	2.00	412	3,200	0.149	
	LT	1.00	126	1,600	0.079 *	
Eastbound	RT	0.00	144	0	0.000	ICU: 0.551
	TH	3.00	910	4,800	0.219 *	
	LT	1.00	73	1,600	0.045	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 12 - Painter Ave & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : Y  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	43	1,600	0.008	N-S(1): 0.160 *
	TH	0.72	113	1,155	0.098	N-S(2): 0.000
	LT	1.28	200	1,840	0.109 *	E-W(1): 0.117
Westbound	RT	0.00	302	0	0.000	E-W(2): 0.262 *
	TH	3.00	775	4,800	0.224 *	V/C: 0.422
	LT	1.00	38	1,600	0.024	Lost Time: 0.100
Northbound	RT	0.00	18	0	0.000	ITS: 0.000
	TH	2.00	116	1,600	0.051 *	
	LT	0.00	30	1,600	0.019	
Eastbound	RT	0.00	40	0	0.000	ICU: 0.522
	TH	3.00	404	4,800	0.093	
	LT	1.00	62	1,600	0.038 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	54	1,600	0.017	N-S(1): 0.212 *
	TH	0.45	96	727	0.131	N-S(2): 0.000
	LT	1.55	325	2,226	0.146 *	E-W(1): 0.212
Westbound	RT	0.00	291	0	0.000	E-W(2): 0.303 *
	TH	3.00	575	3,200	0.270 *	V/C: 0.515
	LT	1.00	30	1,600	0.018	Lost Time: 0.100
Northbound	RT	0.00	26	0	0.000	ITS: 0.000
	TH	2.00	146	1,600	0.066 *	
	LT	0.00	40	1,600	0.025	
Eastbound	RT	0.00	43	0	0.000	ICU: 0.615
	TH	3.00	888	4,800	0.194	
	LT	1.00	52	1,600	0.033 *	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 13 - Carmenita Rd & Telegraph Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	69	1,600	0.025	N-S(1): 0.231 *
	TH	2.00	427	3,200	0.133	N-S(2): 0.227
	LT	1.00	141	1,600	0.088 *	E-W(1): 0.171
Westbound	RT	0.00	145	0	0.000	E-W(2): 0.240 *
	TH	3.00	835	4,800	0.204 *	V/C: 0.471
	LT	1.00	102	1,600	0.063	Lost Time: 0.100
Northbound	RT	1.00	81	1,600	0.019	ITS: 0.000
	TH	2.00	457	3,200	0.143 *	
	LT	1.00	150	1,600	0.094	
Eastbound	RT	0.00	108	0	0.000	ICU: 0.571
	TH	3.00	413	4,800	0.108	
	LT	1.00	58	1,600	0.036 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	97	1,600	0.014	N-S(1): 0.312 *
	TH	2.00	543	3,200	0.170	N-S(2): 0.251
	LT	1.00	162	1,600	0.101 *	E-W(1): 0.324 *
Westbound	RT	0.00	173	0	0.000	E-W(2): 0.250
	TH	3.00	587	4,800	0.158	V/C: 0.636
	LT	1.00	186	1,600	0.116 *	Lost Time: 0.100
Northbound	RT	1.00	145	1,600	0.032	ITS: 0.000
	TH	2.00	674	3,200	0.211 *	
	LT	1.00	129	1,600	0.081	
Eastbound	RT	0.00	125	0	0.000	ICU: 0.736
	TH	3.00	876	4,800	0.208 *	
	LT	1.00	147	1,600	0.092	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 14 - Orr and Day Rd & Florence Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : Y  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	250	3,200	0.049 *	N-S(1):	0.061 *
	TH	0.15	5	246	0.020	N-S(2):	0.000
	LT	1.85	60	2,658	0.023	E-W(1):	0.269
Westbound	RT	0.00	116	0	0.000	E-W(2):	0.332 *
	TH	3.00	1,198	4,800	0.274 *	V/C:	0.393
	LT	1.00	1	1,600	0.001	Lost Time:	0.100
Northbound	RT	0.00	6	0	0.000	ITS:	0.000
	TH	1.01	12	1,615	0.011	ICU:	0.493
	LT	1.99	36	2,867	0.012 *		
Eastbound	RT	0.00	9	0	0.000		
	TH	3.00	1,277	4,800	0.268	LOS:	A
	LT	2.00	168	2,880	0.058 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	370	3,200	0.062 *	N-S(1):	0.069 *
	TH	0.23	14	367	0.038	N-S(2):	0.000
	LT	1.77	108	2,550	0.042	E-W(1):	0.255
Westbound	RT	0.00	108	0	0.000	E-W(2):	0.378 *
	TH	3.00	1,192	4,800	0.271 *	V/C:	0.447
	LT	1.00	0	1,600	0.000	Lost Time:	0.100
Northbound	RT	0.00	3	0	0.000	ITS:	0.000
	TH	1.79	14	2,863	0.006	ICU:	0.547
	LT	1.21	12	1,743	0.007 *		
Eastbound	RT	0.00	20	0	0.000		
	TH	3.00	1,203	4,800	0.255	LOS:	A
	LT	2.00	309	2,880	0.107 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 15 - Pioneer Blvd & Florence Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	42	0	0.000	N-S(1): 0.173 *
	TH	2.00	217	3,200	0.081	N-S(2): 0.134
	LT	1.00	50	1,600	0.031 *	E-W(1): 0.432 *
Westbound	RT	1.00	71	1,600	0.044	E-W(2): 0.404
	TH	2.00	1,142	3,200	0.357	V/C: 0.605
	LT	1.00	112	1,600	0.070 *	Lost Time: 0.100
Northbound	RT	0.00	173	0	0.000	ITS: 0.000
	TH	2.00	282	3,200	0.142 *	
	LT	2.00	152	2,880	0.053	
Eastbound	RT	1.00	111	1,600	0.069	ICU: 0.705
	TH	2.00	1,158	3,200	0.362 *	
	LT	1.00	76	1,600	0.047	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	96	0	0.000	N-S(1): 0.181
	TH	2.00	408	3,200	0.157 *	N-S(2): 0.207 *
	LT	1.00	77	1,600	0.048	E-W(1): 0.439 *
Westbound	RT	1.00	79	1,600	0.025	E-W(2): 0.422
	TH	2.00	1,244	3,200	0.389	V/C: 0.646
	LT	1.00	169	1,600	0.106 *	Lost Time: 0.100
Northbound	RT	0.00	182	0	0.000	ITS: 0.000
	TH	2.00	243	3,200	0.133	
	LT	2.00	145	2,880	0.050 *	
Eastbound	RT	1.00	146	1,600	0.066	ICU: 0.746
	TH	2.00	1,066	3,200	0.333 *	
	LT	1.00	53	1,600	0.033	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 16 - Norwalk Blvd & Florence Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	116	1,600	0.017	N-S(1): 0.207 *
	TH	2.00	360	3,200	0.112	N-S(2): 0.185
	LT	1.00	94	1,600	0.059 *	E-W(1): 0.396
Westbound	RT	1.00	46	1,600	0.000	E-W(2): 0.461 *
	TH	2.00	1,119	3,200	0.350 *	V/C: 0.668
	LT	1.00	106	1,600	0.066	Lost Time: 0.100
Northbound	RT	1.00	130	1,600	0.048	ITS: 0.000
	TH	2.00	473	3,200	0.148 *	
	LT	1.00	117	1,600	0.073	
Eastbound	RT	1.00	153	1,600	0.059	ICU: 0.768
	TH	2.00	1,058	3,200	0.330	
	LT	1.00	178	1,600	0.111 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	173	1,600	0.078	N-S(1): 0.235
	TH	2.00	676	3,200	0.211 *	N-S(2): 0.304 *
	LT	1.00	118	1,600	0.073	E-W(1): 0.428 *
Westbound	RT	1.00	60	1,600	0.000	E-W(2): 0.385
	TH	2.00	1,041	3,200	0.325	V/C: 0.732
	LT	1.00	149	1,600	0.093 *	Lost Time: 0.100
Northbound	RT	1.00	156	1,600	0.051	ITS: 0.000
	TH	2.00	517	3,200	0.162	
	LT	1.00	150	1,600	0.093 *	
Eastbound	RT	1.00	132	1,600	0.035	ICU: 0.832
	TH	2.00	1,072	3,200	0.335 *	
	LT	1.00	96	1,600	0.060	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 17 - Bloomfield Ave & Florence Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	104	1,600	0.021	N-S(1):	0.157
	TH	2.00	590	3,200	0.184 *	N-S(2):	0.223 *
	LT	1.00	36	1,600	0.022	E-W(1):	0.320
Westbound	RT	1.00	78	1,600	0.037	E-W(2):	0.415 *
	TH	2.00	1,046	3,200	0.327 *	V/C:	0.638
	LT	1.00	130	1,600	0.081	Lost Time:	0.100
Northbound	RT	1.00	50	1,600	0.000	ITS:	0.000
	TH	2.00	433	3,200	0.135		
	LT	1.00	63	1,600	0.039 *		
Eastbound	RT	1.00	170	1,600	0.086	ICU:	0.738
	TH	2.00	764	3,200	0.239		
	LT	1.00	141	1,600	0.088 *	LOS:	C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	147	1,600	0.035	N-S(1):	0.232
	TH	2.00	678	3,200	0.212 *	N-S(2):	0.281 *
	LT	1.00	74	1,600	0.046	E-W(1):	0.364
Westbound	RT	1.00	60	1,600	0.014	E-W(2):	0.380 *
	TH	2.00	854	3,200	0.267 *	V/C:	0.661
	LT	1.00	125	1,600	0.078	Lost Time:	0.100
Northbound	RT	1.00	134	1,600	0.044	ITS:	0.000
	TH	2.00	597	3,200	0.186		
	LT	1.00	111	1,600	0.069 *		
Eastbound	RT	1.00	165	1,600	0.068	ICU:	0.761
	TH	2.00	916	3,200	0.286		
	LT	1.00	181	1,600	0.113 *	LOS:	C

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 18 - Shoemaker Ave & Florence Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	62	0	0.000	N-S(1): 0.138
	TH	2.00	342	3,200	0.126 *	N-S(2): 0.213 *
	LT	1.00	22	1,600	0.013	E-W(1): 0.235
Westbound	RT	1.00	60	1,600	0.031	E-W(2): 0.411 *
	TH	2.00	1,133	3,200	0.354 *	V/C: 0.624
	LT	1.00	67	1,600	0.042	Lost Time: 0.100
Northbound	RT	1.00	53	1,600	0.012	ITS: 0.000
	TH	2.00	399	3,200	0.125	
	LT	1.00	140	1,600	0.087 *	
Eastbound	RT	1.00	137	1,600	0.042	ICU: 0.724
	TH	2.00	619	3,200	0.193	
	LT	1.00	91	1,600	0.057 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	91	0	0.000	N-S(1): 0.175
	TH	2.00	506	3,200	0.186 *	N-S(2): 0.267 *
	LT	1.00	73	1,600	0.045	E-W(1): 0.367 *
Westbound	RT	1.00	21	1,600	0.000	E-W(2): 0.270
	TH	2.00	778	3,200	0.243	V/C: 0.634
	LT	1.00	51	1,600	0.032 *	Lost Time: 0.100
Northbound	RT	1.00	96	1,600	0.044	ITS: 0.000
	TH	2.00	417	3,200	0.130	
	LT	1.00	130	1,600	0.081 *	
Eastbound	RT	1.00	164	1,600	0.062	ICU: 0.734
	TH	2.00	1,073	3,200	0.335 *	
	LT	1.00	43	1,600	0.027	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 19 - Carmenita Rd & Florence Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	105	1,600	0.037	N-S(1): 0.199
	TH	2.00	529	3,200	0.165 *	N-S(2): 0.257 *
	LT	1.00	26	1,600	0.016	E-W(1): 0.219
Westbound	RT	1.00	27	1,600	0.009	E-W(2): 0.386 *
	TH	2.00	1,052	3,200	0.329 *	V/C: 0.643
	LT	1.00	113	1,600	0.071	Lost Time: 0.100
Northbound	RT	1.00	108	1,600	0.032	ITS: 0.000
	TH	2.00	585	3,200	0.183	
	LT	1.00	148	1,600	0.092 *	
Eastbound	RT	1.00	81	1,600	0.004	ICU: 0.743
	TH	2.00	473	3,200	0.148	
	LT	1.00	91	1,600	0.057 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	131	1,600	0.030	N-S(1): 0.292
	TH	2.00	791	3,200	0.247 *	N-S(2): 0.303 *
	LT	1.00	87	1,600	0.054	E-W(1): 0.424 *
Westbound	RT	1.00	47	1,600	0.002	E-W(2): 0.269
	TH	2.00	533	3,200	0.166	V/C: 0.727
	LT	1.00	129	1,600	0.081 *	Lost Time: 0.100
Northbound	RT	1.00	228	1,600	0.102	ITS: 0.000
	TH	2.00	763	3,200	0.238	
	LT	1.00	90	1,600	0.056 *	
Eastbound	RT	1.00	107	1,600	0.039	ICU: 0.827
	TH	2.00	1,098	3,200	0.343 *	
	LT	1.00	164	1,600	0.103	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 20 - Bloomfield Ave & Lakeland Rd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	72	1,600	0.030	N-S(1): 0.222
	TH	2.00	680	3,200	0.212 *	N-S(2): 0.245 *
	LT	1.00	92	1,600	0.057	E-W(1): 0.123 *
Westbound	RT	1.00	48	1,600	0.001	E-W(2): 0.122
	TH	1.00	148	1,600	0.093	V/C: 0.368
	LT	1.00	49	1,600	0.031 *	Lost Time: 0.100
Northbound	RT	0.00	44	0	0.000	ITS: 0.000
	TH	2.00	485	3,200	0.165	
	LT	1.00	53	1,600	0.033 *	
Eastbound	RT	1.00	63	1,600	0.023	ICU: 0.468
	TH	1.00	147	1,600	0.092 *	
	LT	1.00	47	1,600	0.029	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	146	1,600	0.064	N-S(1): 0.300 *
	TH	2.00	710	3,200	0.222	N-S(2): 0.266
	LT	1.00	96	1,600	0.060 *	E-W(1): 0.164
Westbound	RT	1.00	104	1,600	0.035	E-W(2): 0.204 *
	TH	1.00	240	1,600	0.150 *	V/C: 0.504
	LT	1.00	95	1,600	0.059	Lost Time: 0.100
Northbound	RT	0.00	93	0	0.000	ITS: 0.000
	TH	2.00	677	3,200	0.240 *	
	LT	1.00	70	1,600	0.044	
Eastbound	RT	1.00	105	1,600	0.043	ICU: 0.604
	TH	1.00	168	1,600	0.105	
	LT	1.00	86	1,600	0.054 *	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 21 - Bloomfield Ave & Imperial Highway  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	133	1,600	0.018	N-S(1):	0.255 *
	TH	2.00	533	3,200	0.167	N-S(2):	0.216
	LT	1.00	85	1,600	0.053 *	E-W(1):	0.322
Westbound	RT	0.00	79	0	0.000	E-W(2):	0.391 *
	TH	3.00	1,175	4,800	0.261 *	V/C:	0.646
	LT	1.00	266	1,600	0.166	Lost Time:	0.100
Northbound	RT	1.00	248	1,600	0.072	ITS:	0.000
	TH	2.00	647	3,200	0.202 *	ICU:	0.746
	LT	1.00	78	1,600	0.049		
Eastbound	RT	1.00	39	1,600	0.000		
	TH	3.00	748	4,800	0.156	LOS:	C
	LT	1.00	208	1,600	0.130 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	213	1,600	0.079	N-S(1):	0.257
	TH	2.00	847	3,200	0.265 *	N-S(2):	0.345 *
	LT	1.00	157	1,600	0.098	E-W(1):	0.416 *
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.365
	TH	3.00	1,153	4,800	0.257	V/C:	0.761
	LT	1.00	288	1,600	0.180 *	Lost Time:	0.100
Northbound	RT	1.00	398	1,600	0.159	ITS:	0.000
	TH	2.00	508	3,200	0.159	ICU:	0.861
	LT	1.00	129	1,600	0.080 *		
Eastbound	RT	1.00	64	1,600	0.000		
	TH	3.00	1,134	4,800	0.236 *	LOS:	D
	LT	1.00	174	1,600	0.108		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 22 - Carmenita Rd & Imperial Highway  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	30	1,600	0.000	N-S(1):	0.267
	TH	2.00	944	3,200	0.295 *	N-S(2):	0.398 *
	LT	1.00	85	1,600	0.053	E-W(1):	0.263 *
Westbound	RT	0.00	67	0	0.000	E-W(2):	0.213
	TH	3.00	778	4,800	0.176	V/C:	0.661
	LT	1.00	172	1,600	0.107 *	Lost Time:	0.100
Northbound	RT	1.00	81	1,600	0.000	ITS:	0.000
	TH	2.00	685	3,200	0.214	ICU:	0.761
	LT	1.00	166	1,600	0.103 *		
Eastbound	RT	0.00	187	0	0.000		
	TH	3.00	560	4,800	0.156 *	LOS:	C
	LT	1.00	59	1,600	0.037		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	67	1,600	0.004	N-S(1):	0.415 *
	TH	2.00	784	3,200	0.245	N-S(2):	0.348
	LT	1.00	93	1,600	0.058 *	E-W(1):	0.295 *
Westbound	RT	0.00	118	0	0.000	E-W(2):	0.253
	TH	3.00	730	4,800	0.177	V/C:	0.710
	LT	1.00	147	1,600	0.092 *	Lost Time:	0.100
Northbound	RT	1.00	192	1,600	0.074	ITS:	0.000
	TH	2.00	1,141	3,200	0.357 *	ICU:	0.810
	LT	1.00	165	1,600	0.103		
Eastbound	RT	0.00	147	0	0.000		
	TH	3.00	828	4,800	0.203 *	LOS:	D
	LT	1.00	122	1,600	0.076		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 23 - Carmenita Rd & Rosecrans Ave  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	380	1,600	0.132	N-S(1): 0.302
	TH	2.00	1,046	3,200	0.327 *	N-S(2): 0.362 *
	LT	1.00	54	1,600	0.034	E-W(1): 0.245 *
Westbound	RT	0.00	26	0	0.000	E-W(2): 0.235
	TH	3.00	600	4,800	0.130	V/C: 0.607
	LT	1.00	119	1,600	0.074 *	Lost Time: 0.100
Northbound	RT	1.00	138	1,600	0.049	ITS: 0.000
	TH	2.00	857	3,200	0.268	
	LT	1.00	57	1,600	0.035 *	
Eastbound	RT	0.00	53	0	0.000	ICU: 0.707
	TH	2.00	496	3,200	0.171 *	
	LT	2.00	303	2,880	0.105	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	414	1,600	0.143	N-S(1): 0.390 *
	TH	2.00	1,006	3,200	0.314	N-S(2): 0.375
	LT	1.00	43	1,600	0.027 *	E-W(1): 0.254 *
Westbound	RT	0.00	162	0	0.000	E-W(2): 0.247
	TH	3.00	469	4,800	0.131	V/C: 0.644
	LT	1.00	113	1,600	0.070 *	Lost Time: 0.100
Northbound	RT	1.00	133	1,600	0.048	ITS: 0.000
	TH	2.00	1,162	3,200	0.363 *	
	LT	1.00	98	1,600	0.061	
Eastbound	RT	0.00	65	0	0.000	ICU: 0.744
	TH	2.00	524	3,200	0.184 *	
	LT	2.00	333	2,880	0.116	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 24 - Carmenita Rd & Alondra Blvd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	305	1,600	0.191	N-S(1): 0.291 *
	TH	2.00	482	3,200	0.150	N-S(2): 0.207
	LT	1.00	168	1,600	0.105 *	E-W(1): 0.228
Westbound	RT	1.00	179	1,600	0.059	E-W(2): 0.312 *
	TH	2.00	504	3,200	0.157 *	V/C: 0.603
	LT	1.00	183	1,600	0.114	Lost Time: 0.100
Northbound	RT	0.00	78	0	0.000	ITS: 0.000
	TH	2.00	517	3,200	0.186 *	
	LT	2.00	48	2,880	0.016	
Eastbound	RT	1.00	38	1,600	0.015	ICU: 0.703
	TH	2.00	366	3,200	0.114	
	LT	1.00	248	1,600	0.155 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	291	1,600	0.182	N-S(1): 0.325 *
	TH	2.00	637	3,200	0.199	N-S(2): 0.217
	LT	1.00	131	1,600	0.082 *	E-W(1): 0.261
Westbound	RT	1.00	238	1,600	0.108	E-W(2): 0.385 *
	TH	2.00	633	3,200	0.198 *	V/C: 0.710
	LT	1.00	171	1,600	0.107	Lost Time: 0.100
Northbound	RT	0.00	118	0	0.000	ITS: 0.000
	TH	2.00	659	3,200	0.243 *	
	LT	2.00	52	2,880	0.018	
Eastbound	RT	1.00	65	1,600	0.040	ICU: 0.810
	TH	2.00	492	3,200	0.154	
	LT	1.00	300	1,600	0.187 *	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 25 - Marquardt Ave & Alondra Blvd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	17	1,600	0.008	N-S(1):	0.122 *
	TH	1.00	59	1,600	0.037	N-S(2):	0.089
	LT	1.00	48	1,600	0.030 *	E-W(1):	0.368 *
Westbound	RT	1.00	72	1,600	0.030	E-W(2):	0.240
	TH	2.00	752	3,200	0.235	V/C:	0.490
	LT	1.00	329	1,600	0.206 *	Lost Time:	0.100
Northbound	RT	1.00	312	1,600	0.092 *	ITS:	0.000
	TH	1.00	64	1,600	0.040	ICU:	0.590
	LT	1.00	84	1,600	0.052		
Eastbound	RT	0.00	97	0	0.000		
	TH	2.00	422	3,200	0.162 *	LOS:	A
	LT	1.00	8	1,600	0.005		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	21	1,600	0.010	N-S(1):	0.308 *
	TH	1.00	71	1,600	0.044	N-S(2):	0.135
	LT	1.00	73	1,600	0.045 *	E-W(1):	0.404 *
Westbound	RT	1.00	78	1,600	0.026	E-W(2):	0.241
	TH	2.00	753	3,200	0.235	V/C:	0.712
	LT	1.00	285	1,600	0.178 *	Lost Time:	0.100
Northbound	RT	1.00	563	1,600	0.263 *	ITS:	0.000
	TH	1.00	93	1,600	0.058	ICU:	0.812
	LT	1.00	146	1,600	0.091		
Eastbound	RT	0.00	86	0	0.000		
	TH	2.00	637	3,200	0.226 *	LOS:	D
	LT	1.00	9	1,600	0.006		

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 26 - Valley View Ave & Alondra Blvd  
**Description:** Existing (2021)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	497	1,600	0.246	N-S(1): 0.321 *
	TH	2.00	659	3,200	0.206	N-S(2): 0.290
	LT	1.00	74	1,600	0.046 *	E-W(1): 0.319 *
Westbound	RT	0.00	57	0	0.000	E-W(2): 0.300
	TH	3.00	766	4,800	0.171	V/C: 0.640
	LT	1.00	331	1,600	0.207 *	Lost Time: 0.100
Northbound	RT	0.00	225	0	0.000	ITS: 0.000
	TH	2.00	657	3,200	0.275 *	
	LT	2.00	126	2,880	0.044	
Eastbound	RT	0.00	66	0	0.000	ICU: 0.740
	TH	3.00	471	4,800	0.112 *	
	LT	1.00	207	1,600	0.129	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	478	1,600	0.195	N-S(1): 0.402 *
	TH	2.00	662	3,200	0.207	N-S(2): 0.236
	LT	1.00	111	1,600	0.069 *	E-W(1): 0.331
Westbound	RT	0.00	100	0	0.000	E-W(2): 0.348 *
	TH	3.00	578	4,800	0.141 *	V/C: 0.750
	LT	1.00	206	1,600	0.129	Lost Time: 0.100
Northbound	RT	0.00	235	0	0.000	ITS: 0.000
	TH	2.00	830	3,200	0.333 *	
	LT	2.00	84	2,880	0.029	
Eastbound	RT	0.00	77	0	0.000	ICU: 0.850
	TH	3.00	894	4,800	0.202	
	LT	1.00	331	1,600	0.207 *	LOS: D

\* - Denotes critical movement

## **FUTURE BASE LOS CALCULATIONS**

**Project Title:** Santa Fe Springs  
**Intersection:** 1 - Norwalk Blvd & Washington Blvd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	87	1,600	0.032	N-S(1): 0.189
	TH	2.00	530	3,200	0.166 *	N-S(2): 0.281 *
	LT	1.00	173	1,600	0.108	E-W(1): 0.351 *
Westbound	RT	0.00	122	0	0.000	E-W(2): 0.294
	TH	3.00	1,072	4,800	0.249	V/C: 0.632
	LT	1.00	56	1,600	0.035 *	Lost Time: 0.100
Northbound	RT	1.00	33	1,600	0.003	ITS: 0.000
	TH	2.00	261	3,200	0.081	
	LT	1.00	184	1,600	0.115 *	
Eastbound	RT	1.00	77	1,600	0.000	ICU: 0.732
	TH	2.00	1,010	3,200	0.316 *	
	LT	1.00	72	1,600	0.045	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	105	1,600	0.027	N-S(1): 0.270
	TH	2.00	434	3,200	0.136 *	N-S(2): 0.348 *
	LT	1.00	155	1,600	0.097	E-W(1): 0.392 *
Westbound	RT	0.00	263	0	0.000	E-W(2): 0.375
	TH	3.00	1,169	4,800	0.298	V/C: 0.740
	LT	1.00	71	1,600	0.044 *	Lost Time: 0.100
Northbound	RT	1.00	51	1,600	0.010	ITS: 0.000
	TH	2.00	554	3,200	0.173	
	LT	1.00	340	1,600	0.212 *	
Eastbound	RT	1.00	201	1,600	0.020	ICU: 0.840
	TH	2.00	1,114	3,200	0.348 *	
	LT	1.00	122	1,600	0.077	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 2 - Sorensen Ave & Slauson Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	104	1,600	0.013	N-S(1):	0.100
	TH	2.00	296	3,200	0.093 *	N-S(2):	0.144 *
	LT	1.00	65	1,600	0.040	E-W(1):	0.224
Westbound	RT	0.00	32	0	0.000	E-W(2):	0.274 *
	TH	3.00	781	4,800	0.169 *	V/C:	0.418
	LT	1.00	36	1,600	0.022	Lost Time:	0.100
Northbound	RT	0.00	15	0	0.000	ITS:	0.000
	TH	2.00	177	3,200	0.060		
	LT	1.00	82	1,600	0.051 *		
Eastbound	RT	0.00	162	0	0.000	ICU:	0.518
	TH	3.00	810	4,800	0.202		
	LT	1.00	168	1,600	0.105 *	LOS:	A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	115	1,600	0.009	N-S(1):	0.254 *
	TH	2.00	221	3,200	0.069	N-S(2):	0.129
	LT	1.00	181	1,600	0.113 *	E-W(1):	0.236
Westbound	RT	0.00	52	0	0.000	E-W(2):	0.314 *
	TH	3.00	845	4,800	0.187 *	V/C:	0.568
	LT	1.00	53	1,600	0.033	Lost Time:	0.100
Northbound	RT	0.00	45	0	0.000	ITS:	0.000
	TH	2.00	405	3,200	0.141 *		
	LT	1.00	96	1,600	0.060		
Eastbound	RT	0.00	79	0	0.000	ICU:	0.668
	TH	3.00	897	4,800	0.203		
	LT	1.00	203	1,600	0.127 *	LOS:	B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 3 - Norwalk Ave & Los Nietos Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	44	1,600	0.007	N-S(1):	0.093
	TH	2.00	546	3,200	0.171 *	N-S(2):	0.204 *
	LT	1.00	58	1,600	0.037	E-W(1):	0.138 *
Westbound	RT	0.00	84	0	0.000	E-W(2):	0.116
	TH	2.00	156	3,200	0.075	V/C:	0.342
	LT	1.00	43	1,600	0.027 *	Lost Time:	0.100
Northbound	RT	1.00	77	1,600	0.035	ITS:	0.000
	TH	2.00	180	3,200	0.056	ICU:	0.442
	LT	1.00	53	1,600	0.033 *		
Eastbound	RT	0.00	178	1,600	0.111 *		
	TH	2.00	138	1,600	0.086	LOS:	A
	LT	1.00	65	1,600	0.041		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	101	1,600	0.044	N-S(1):	0.229 *
	TH	2.00	533	3,200	0.167	N-S(2):	0.215
	LT	1.00	65	1,600	0.041 *	E-W(1):	0.110
Westbound	RT	0.00	86	0	0.000	E-W(2):	0.185 *
	TH	2.00	388	3,200	0.148 *	V/C:	0.414
	LT	1.00	96	1,600	0.060	Lost Time:	0.100
Northbound	RT	1.00	78	1,600	0.019	ITS:	0.000
	TH	2.00	603	3,200	0.188 *	ICU:	0.514
	LT	1.00	77	1,600	0.048		
Eastbound	RT	0.00	80	1,600	0.050		
	TH	2.00	79	1,600	0.049	LOS:	A
	LT	1.00	59	1,600	0.037 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 4 - Santa Fe Springs Rd & Los Nietos Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	35	1,600	0.011	N-S(1):	0.208
	TH	2.00	653	3,200	0.204 *	N-S(2):	0.261 *
	LT	1.00	98	1,600	0.061	E-W(1):	0.201 *
Westbound	RT	1.00	109	1,600	0.038	E-W(2):	0.187
	TH	1.00	265	1,600	0.166	V/C:	0.462
	LT	1.00	119	1,600	0.074 *	Lost Time:	0.100
Northbound	RT	1.00	43	1,600	0.000	ITS:	0.000
	TH	2.00	471	3,200	0.147	ICU:	0.562
	LT	1.00	91	1,600	0.057 *	LOS:	A
Eastbound	RT	1.00	165	1,600	0.075		
	TH	1.00	204	1,600	0.127 *		
	LT	1.00	33	1,600	0.021		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	73	1,600	0.032	N-S(1):	0.345 *
	TH	2.00	646	3,200	0.202	N-S(2):	0.288
	LT	1.00	138	1,600	0.086 *	E-W(1):	0.234
Westbound	RT	1.00	233	1,600	0.103	E-W(2):	0.237 *
	TH	1.00	335	1,600	0.210 *	V/C:	0.582
	LT	1.00	64	1,600	0.040	Lost Time:	0.100
Northbound	RT	1.00	62	1,600	0.018	ITS:	0.000
	TH	2.00	827	3,200	0.259 *	ICU:	0.682
	LT	1.00	138	1,600	0.086	LOS:	B
Eastbound	RT	1.00	81	1,600	0.007		
	TH	1.00	311	1,600	0.194		
	LT	1.00	44	1,600	0.027 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 5 - I-605 SB Ramps & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : EBR, WBR  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	34	1,600	0.000	N-S(1): 0.111 *
	TH	0.13	10	213	0.047	N-S(2): 0.066
	LT	1.87	140	2,688	0.052 *	E-W(1): 0.391
Westbound	RT	1.00	1,086	1,600	0.626 *	E-W(2): 0.768 *
	TH	2.00	676	3,200	0.211	
	LT	1.00	12	1,600	0.007	V/C: 0.879
Northbound	RT	0.00	21	0	0.000	Lost Time: 0.100
	TH	1.00	42	1,600	0.059 *	ITS: 0.000
	LT	0.00	31	1,600	0.019	
Eastbound	RT	1.00	20	1,600	0.000	ICU: 0.979
	TH	2.00	1,229	3,200	0.384	
	LT	1.00	227	1,600	0.142 *	LOS: E

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	63	1,600	0.000	N-S(1): 0.085 *
	TH	0.18	10	285	0.035	N-S(2): 0.048
	LT	1.82	102	2,624	0.039 *	E-W(1): 0.298
Westbound	RT	1.00	1,224	1,600	0.726 *	E-W(2): 0.856 *
	TH	2.00	1,050	3,200	0.328	
	LT	1.00	11	1,600	0.007	V/C: 0.941
Northbound	RT	0.00	11	0	0.000	Lost Time: 0.100
	TH	1.00	42	1,600	0.046 *	ITS: 0.000
	LT	0.00	21	1,600	0.013	
Eastbound	RT	1.00	72	1,600	0.032	ICU: 1.041
	TH	2.00	931	3,200	0.291	
	LT	1.00	208	1,600	0.130 *	LOS: F

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 6 - I-605 NB Ramps & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.065 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.065 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.396 *
Westbound	RT	1.00	292	1,600	0.182	E-W(2): 0.374
	TH	3.00	1,486	4,800	0.310	V/C: 0.461
	LT	1.00	10	1,600	0.006 *	Lost Time: 0.100
Northbound	RT	1.00	15	1,600	0.006	ITS: 0.000
	TH	0.49	52	791	0.065 *	
	LT	0.51	53	809	0.065 *	
Eastbound	RT	0.00	42	0	0.000	ICU: 0.561
	TH	3.00	1,828	4,800	0.390 *	
	LT	1.00	102	1,600	0.064	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.050 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.050 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.290
Westbound	RT	1.00	228	1,600	0.143	E-W(2): 0.535 *
	TH	3.00	1,885	4,800	0.393 *	V/C: 0.585
	LT	1.00	11	1,600	0.007	Lost Time: 0.100
Northbound	RT	1.00	21	1,600	0.009	ITS: 0.000
	TH	0.37	30	596	0.050 *	
	LT	0.63	51	1,004	0.050 *	
Eastbound	RT	0.00	52	0	0.000	ICU: 0.685
	TH	3.00	1,307	4,800	0.283	
	LT	1.00	228	1,600	0.142 *	LOS: B

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 7 - Orr and Day Rd & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	590	1,600	0.334 *	N-S(1): 0.086
	TH	2.00	64	3,200	0.020	N-S(2): 0.382 *
	LT	1.00	32	1,600	0.020	E-W(1): 0.396 *
Westbound	RT	0.00	11	0	0.000	E-W(2): 0.272
	TH	3.00	959	4,800	0.202	V/C: 0.778
	LT	1.00	57	1,600	0.035 *	Lost Time: 0.100
Northbound	RT	0.00	106	1,600	0.066	ITS: 0.000
	TH	2.00	106	1,600	0.066	
	LT	2.00	138	2,880	0.048 *	
Eastbound	RT	0.00	299	0	0.000	ICU: 0.878
	TH	3.00	1,432	4,800	0.361 *	
	LT	1.00	112	1,600	0.070	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	552	1,600	0.294 *	N-S(1): 0.160
	TH	2.00	287	3,200	0.090	N-S(2): 0.380 *
	LT	1.00	60	1,600	0.038	E-W(1): 0.279
Westbound	RT	0.00	12	0	0.000	E-W(2): 0.358 *
	TH	3.00	1,217	4,800	0.256 *	V/C: 0.738
	LT	1.00	81	1,600	0.051	Lost Time: 0.100
Northbound	RT	0.00	114	0	0.000	ITS: 0.000
	TH	2.00	275	3,200	0.122	
	LT	2.00	247	2,880	0.086 *	
Eastbound	RT	0.00	112	0	0.000	ICU: 0.838
	TH	3.00	983	4,800	0.228	
	LT	1.00	163	1,600	0.102 *	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 8 - Pioneer Blvd & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	25	1,600	0.000	N-S(1):	0.059
	TH	2.00	227	3,200	0.071 *	N-S(2):	0.085 *
	LT	1.00	32	1,600	0.020	E-W(1):	0.326 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.234
	TH	3.00	961	4,800	0.202	V/C:	0.411
	LT	1.00	55	1,600	0.034 *	Lost Time:	0.100
Northbound	RT	1.00	77	1,600	0.031	ITS:	0.000
	TH	2.00	126	3,200	0.039		
	LT	1.00	22	1,600	0.014 *		
Eastbound	RT	0.00	169	0	0.000	ICU:	0.511
	TH	3.00	1,230	4,800	0.292 *		
	LT	1.00	52	1,600	0.032	LOS:	A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	55	1,600	0.023	N-S(1):	0.153 *
	TH	2.00	184	3,200	0.058	N-S(2):	0.124
	LT	1.00	83	1,600	0.052 *	E-W(1):	0.296 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.269
	TH	3.00	1,176	4,800	0.247	V/C:	0.449
	LT	1.00	138	1,600	0.086 *	Lost Time:	0.100
Northbound	RT	1.00	94	1,600	0.016	ITS:	0.000
	TH	2.00	324	3,200	0.101 *		
	LT	1.00	106	1,600	0.066		
Eastbound	RT	0.00	167	0	0.000	ICU:	0.549
	TH	3.00	843	4,800	0.210 *		
	LT	1.00	35	1,600	0.022	LOS:	A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 9 - Norwalk Blvd & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	171	1,600	0.000	N-S(1): 0.172
	TH	2.00	618	3,200	0.193 *	N-S(2): 0.235 *
	LT	1.00	73	1,600	0.046	E-W(1): 0.210
Westbound	RT	0.00	36	0	0.000	E-W(2): 0.297 *
	TH	3.00	747	4,800	0.163 *	V/C: 0.532
	LT	1.00	70	1,600	0.044	Lost Time: 0.100
Northbound	RT	1.00	122	1,600	0.054	ITS: 0.000
	TH	2.00	402	3,200	0.126	
	LT	1.00	68	1,600	0.042 *	
Eastbound	RT	1.00	35	1,600	0.001	ICU: 0.632
	TH	3.00	795	4,800	0.166	
	LT	1.00	214	1,600	0.134 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	199	1,600	0.059	N-S(1): 0.235
	TH	2.00	547	3,200	0.171 *	N-S(2): 0.273 *
	LT	1.00	80	1,600	0.050	E-W(1): 0.292 *
Westbound	RT	0.00	57	0	0.000	E-W(2): 0.230
	TH	3.00	729	4,800	0.164	V/C: 0.565
	LT	1.00	202	1,600	0.126 *	Lost Time: 0.100
Northbound	RT	1.00	96	1,600	0.000	ITS: 0.000
	TH	2.00	593	3,200	0.185	
	LT	1.00	163	1,600	0.102 *	
Eastbound	RT	1.00	184	1,600	0.115	ICU: 0.665
	TH	3.00	796	4,800	0.166 *	
	LT	1.00	105	1,600	0.066	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 10 - Santa Fe Springs Rd & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	130	1,600	0.023	N-S(1): 0.179
	TH	2.00	733	3,200	0.229 *	N-S(2): 0.267 *
	LT	1.00	48	1,600	0.030	E-W(1): 0.170
Westbound	RT	1.00	131	1,600	0.067	E-W(2): 0.257 *
	TH	3.00	677	4,800	0.141 *	V/C: 0.524
	LT	1.00	65	1,600	0.040	Lost Time: 0.100
Northbound	RT	1.00	68	1,600	0.022	ITS: 0.000
	TH	2.00	477	3,200	0.149	
	LT	1.00	61	1,600	0.038 *	
Eastbound	RT	1.00	11	1,600	0.000	ICU: 0.624
	TH	3.00	623	4,800	0.130	
	LT	1.00	186	1,600	0.116 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	259	1,600	0.142	N-S(1): 0.320 *
	TH	2.00	608	3,200	0.190	N-S(2): 0.253
	LT	1.00	85	1,600	0.053 *	E-W(1): 0.186 *
Westbound	RT	1.00	65	1,600	0.014	E-W(2): 0.169
	TH	3.00	620	4,800	0.129	V/C: 0.506
	LT	1.00	76	1,600	0.047 *	Lost Time: 0.100
Northbound	RT	1.00	95	1,600	0.036	ITS: 0.000
	TH	2.00	856	3,200	0.267 *	
	LT	1.00	101	1,600	0.063	
Eastbound	RT	1.00	72	1,600	0.013	ICU: 0.606
	TH	3.00	669	4,800	0.139 *	
	LT	1.00	64	1,600	0.040	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 11 - Shoemaker Ave & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	79	0	0.000	N-S(1): 0.097
	TH	2.00	259	3,200	0.105 *	N-S(2): 0.165 *
	LT	1.00	23	1,600	0.015	E-W(1): 0.150
Westbound	RT	0.00	34	0	0.000	E-W(2): 0.189 *
	TH	3.00	648	4,800	0.142 *	V/C: 0.354
	LT	1.00	52	1,600	0.033	Lost Time: 0.100
Northbound	RT	0.00	31	0	0.000	ITS: 0.000
	TH	2.00	233	3,200	0.082	
	LT	1.00	97	1,600	0.060 *	
Eastbound	RT	0.00	104	0	0.000	ICU: 0.454
	TH	3.00	456	4,800	0.117	
	LT	1.00	76	1,600	0.047 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	56	0	0.000	N-S(1): 0.166
	TH	2.00	311	3,200	0.115 *	N-S(2): 0.191 *
	LT	1.00	30	1,600	0.019	E-W(1): 0.206 *
Westbound	RT	0.00	31	0	0.000	E-W(2): 0.148
	TH	3.00	455	4,800	0.101	V/C: 0.397
	LT	1.00	35	1,600	0.022 *	Lost Time: 0.100
Northbound	RT	0.00	67	0	0.000	ITS: 0.000
	TH	2.00	402	3,200	0.147	
	LT	1.00	122	1,600	0.076 *	
Eastbound	RT	0.00	112	0	0.000	ICU: 0.497
	TH	3.00	770	4,800	0.184 *	
	LT	1.00	75	1,600	0.047	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 12 - Painter Ave & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : Y  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	34	1,600	0.007	N-S(1):	0.158 *
	TH	0.75	111	1,203	0.092	N-S(2):	0.000
	LT	1.25	184	1,797	0.102 *	E-W(1):	0.118
Westbound	RT	0.00	277	0	0.000	E-W(2):	0.221 *
	TH	3.00	650	4,800	0.193 *	V/C:	0.379
	LT	1.00	41	1,600	0.026	Lost Time:	0.100
Northbound	RT	0.00	20	0	0.000	ITS:	0.000
	TH	2.00	120	1,600	0.056 *	ICU:	0.479
	LT	0.00	38	1,600	0.023		
Eastbound	RT	0.00	42	0	0.000		
	TH	3.00	402	4,800	0.092	LOS:	A
	LT	1.00	45	1,600	0.028 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	33	1,600	0.000	N-S(1):	0.185 *
	TH	0.44	84	703	0.119	N-S(2):	0.000
	LT	1.56	298	2,247	0.133 *	E-W(1):	0.189
Westbound	RT	0.00	293	0	0.000	E-W(2):	0.273 *
	TH	3.00	449	3,200	0.232 *	V/C:	0.458
	LT	1.00	33	1,600	0.020	Lost Time:	0.100
Northbound	RT	0.00	31	0	0.000	ITS:	0.000
	TH	2.00	95	1,600	0.052 *	ICU:	0.558
	LT	0.00	41	1,600	0.025		
Eastbound	RT	0.00	44	0	0.000		
	TH	3.00	766	4,800	0.169	LOS:	A
	LT	1.00	66	1,600	0.041 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 13 - Carmenita Rd & Telegraph Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	75	1,600	0.026	N-S(1):	0.148
	TH	2.00	483	3,200	0.151 *	N-S(2):	0.249 *
	LT	1.00	44	1,600	0.028	E-W(1):	0.166
Westbound	RT	0.00	118	0	0.000	E-W(2):	0.208 *
	TH	3.00	678	4,800	0.166 *	V/C:	0.457
	LT	1.00	98	1,600	0.061	Lost Time:	0.100
Northbound	RT	1.00	85	1,600	0.023	ITS:	0.000
	TH	2.00	385	3,200	0.120		
	LT	1.00	157	1,600	0.098 *		
Eastbound	RT	0.00	109	0	0.000	ICU:	0.557
	TH	3.00	396	4,800	0.105		
	LT	1.00	67	1,600	0.042 *	LOS:	A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	97	1,600	0.013	N-S(1):	0.242
	TH	2.00	523	3,200	0.163 *	N-S(2):	0.244 *
	LT	1.00	61	1,600	0.038	E-W(1):	0.273 *
Westbound	RT	0.00	153	0	0.000	E-W(2):	0.222
	TH	3.00	458	4,800	0.127	V/C:	0.517
	LT	1.00	155	1,600	0.097 *	Lost Time:	0.100
Northbound	RT	1.00	175	1,600	0.061	ITS:	0.000
	TH	2.00	653	3,200	0.204		
	LT	1.00	129	1,600	0.081 *		
Eastbound	RT	0.00	118	0	0.000	ICU:	0.617
	TH	3.00	729	4,800	0.176 *		
	LT	1.00	152	1,600	0.095	LOS:	B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 14 - Orr and Day Rd & Florence Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : Y  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	2.00	351	3,200	0.081 *	N-S(1): 0.097 *
	TH	0.27	10	437	0.023	N-S(2): 0.000
	LT	1.73	63	2,486	0.025	E-W(1): 0.271
Westbound	RT	0.00	125	0	0.000	E-W(2): 0.318 *
	TH	3.00	1,125	4,800	0.260 *	V/C: 0.415
	LT	1.00	10	1,600	0.006	Lost Time: 0.100
Northbound	RT	0.00	12	0	0.000	ITS: 0.000
	TH	1.42	20	2,276	0.014	
	LT	1.58	36	2,272	0.016 *	
Eastbound	RT	0.00	12	0	0.000	ICU: 0.515
	TH	3.00	1,261	4,800	0.265	
	LT	2.00	166	2,880	0.058 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	2.00	323	3,200	0.041	N-S(1): 0.081 *
	TH	0.30	20	477	0.042	N-S(2): 0.000
	LT	1.70	114	2,451	0.047 *	E-W(1): 0.247
Westbound	RT	0.00	116	0	0.000	E-W(2): 0.355 *
	TH	3.00	1,013	4,800	0.235 *	V/C: 0.436
	LT	1.00	0	1,600	0.000	Lost Time: 0.100
Northbound	RT	0.00	10	0	0.000	ITS: 0.000
	TH	2.00	100	3,200	0.034 *	
	LT	1.00	21	1,600	0.013	
Eastbound	RT	0.00	20	0	0.000	ICU: 0.536
	TH	3.00	1,166	4,800	0.247	
	LT	2.00	344	2,880	0.120 *	LOS: A

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 15 - Pioneer Blvd & Florence Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	33	0	0.000	N-S(1): 0.134
	TH	2.00	361	3,200	0.123 *	N-S(2): 0.148 *
	LT	1.00	51	1,600	0.032	E-W(1): 0.396
Westbound	RT	1.00	78	1,600	0.049	E-W(2): 0.405 *
	TH	2.00	1,133	3,200	0.354 *	V/C: 0.553
	LT	1.00	32	1,600	0.020	Lost Time: 0.100
Northbound	RT	0.00	115	0	0.000	ITS: 0.000
	TH	2.00	210	3,200	0.102	
	LT	2.00	72	2,880	0.025 *	
Eastbound	RT	1.00	128	1,600	0.080	ICU: 0.653
	TH	2.00	1,202	3,200	0.376	
	LT	1.00	82	1,600	0.051 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	82	0	0.000	N-S(1): 0.204 *
	TH	2.00	418	3,200	0.156	N-S(2): 0.167
	LT	1.00	83	1,600	0.052 *	E-W(1): 0.376
Westbound	RT	1.00	82	1,600	0.025	E-W(2): 0.448 *
	TH	2.00	1,207	3,200	0.377 *	V/C: 0.652
	LT	1.00	101	1,600	0.063	Lost Time: 0.100
Northbound	RT	0.00	186	0	0.000	ITS: 0.000
	TH	2.00	299	3,200	0.152 *	
	LT	2.00	30	2,880	0.011	
Eastbound	RT	1.00	112	1,600	0.065	ICU: 0.752
	TH	2.00	1,002	3,200	0.313	
	LT	1.00	113	1,600	0.071 *	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 16 - Norwalk Blvd & Florence Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	167	1,600	0.026	N-S(1): 0.159
	TH	2.00	373	3,200	0.117 *	N-S(2): 0.194 *
	LT	1.00	104	1,600	0.065	E-W(1): 0.390
Westbound	RT	1.00	46	1,600	0.000	E-W(2): 0.467 *
	TH	2.00	995	3,200	0.311 *	V/C: 0.661
	LT	1.00	141	1,600	0.088	Lost Time: 0.100
Northbound	RT	1.00	133	1,600	0.039	ITS: 0.000
	TH	2.00	302	3,200	0.094	
	LT	1.00	123	1,600	0.077 *	
Eastbound	RT	1.00	155	1,600	0.059	ICU: 0.761
	TH	2.00	966	3,200	0.302	
	LT	1.00	250	1,600	0.156 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	233	1,600	0.134	N-S(1): 0.272 *
	TH	2.00	477	3,200	0.149	N-S(2): 0.246
	LT	1.00	121	1,600	0.075 *	E-W(1): 0.427 *
Westbound	RT	1.00	70	1,600	0.006	E-W(2): 0.299
	TH	2.00	885	3,200	0.276	V/C: 0.699
	LT	1.00	153	1,600	0.096 *	Lost Time: 0.100
Northbound	RT	1.00	76	1,600	0.000	ITS: 0.000
	TH	2.00	630	3,200	0.197 *	
	LT	1.00	155	1,600	0.097	
Eastbound	RT	1.00	137	1,600	0.037	ICU: 0.799
	TH	2.00	1,059	3,200	0.331 *	
	LT	1.00	37	1,600	0.023	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 17 - Bloomfield Ave & Florence Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	72	1,600	0.031	N-S(1):	0.137
	TH	2.00	668	3,200	0.209 *	N-S(2):	0.253 *
	LT	1.00	42	1,600	0.026	E-W(1):	0.318
Westbound	RT	1.00	114	1,600	0.058	E-W(2):	0.331 *
	TH	2.00	971	3,200	0.303 *	V/C:	0.584
	LT	1.00	121	1,600	0.076	Lost Time:	0.100
Northbound	RT	1.00	53	1,600	0.000	ITS:	0.000
	TH	2.00	355	3,200	0.111		
	LT	1.00	71	1,600	0.044 *		
Eastbound	RT	1.00	173	1,600	0.086	ICU:	0.684
	TH	2.00	775	3,200	0.242		
	LT	1.00	44	1,600	0.028 *	LOS:	B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	63	1,600	0.000	N-S(1):	0.228
	TH	2.00	610	3,200	0.190 *	N-S(2):	0.263 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.339
Westbound	RT	1.00	60	1,600	0.012	E-W(2):	0.367 *
	TH	2.00	786	3,200	0.246 *	V/C:	0.630
	LT	1.00	131	1,600	0.082	Lost Time:	0.100
Northbound	RT	1.00	143	1,600	0.048	ITS:	0.000
	TH	2.00	570	3,200	0.178		
	LT	1.00	116	1,600	0.073 *		
Eastbound	RT	1.00	167	1,600	0.068	ICU:	0.730
	TH	2.00	821	3,200	0.257		
	LT	1.00	193	1,600	0.121 *	LOS:	C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 18 - Shoemaker Ave & Florence Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	62	0	0.000	N-S(1): 0.115
	TH	2.00	263	3,200	0.101 *	N-S(2): 0.165 *
	LT	1.00	25	1,600	0.016	E-W(1): 0.237
Westbound	RT	1.00	63	1,600	0.032	E-W(2): 0.407 *
	TH	2.00	1,109	3,200	0.347 *	V/C: 0.572
	LT	1.00	108	1,600	0.068	Lost Time: 0.100
Northbound	RT	1.00	56	1,600	0.001	ITS: 0.000
	TH	2.00	316	3,200	0.099	
	LT	1.00	102	1,600	0.064 *	
Eastbound	RT	1.00	145	1,600	0.059	ICU: 0.672
	TH	2.00	541	3,200	0.169	
	LT	1.00	97	1,600	0.060 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	101	0	0.000	N-S(1): 0.162
	TH	2.00	444	3,200	0.170 *	N-S(2): 0.213 *
	LT	1.00	76	1,600	0.047	E-W(1): 0.370 *
Westbound	RT	1.00	23	1,600	0.000	E-W(2): 0.319
	TH	2.00	774	3,200	0.242	V/C: 0.583
	LT	1.00	62	1,600	0.039 *	Lost Time: 0.100
Northbound	RT	1.00	149	1,600	0.073	ITS: 0.000
	TH	2.00	369	3,200	0.115	
	LT	1.00	68	1,600	0.043 *	
Eastbound	RT	1.00	48	1,600	0.009	ICU: 0.683
	TH	2.00	1,060	3,200	0.331 *	
	LT	1.00	123	1,600	0.077	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 19 - Carmenita Rd & Florence Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	96	1,600	0.033	N-S(1):	0.184
	TH	2.00	587	3,200	0.183 *	N-S(2):	0.277 *
	LT	1.00	33	1,600	0.021	E-W(1):	0.156
Westbound	RT	1.00	31	1,600	0.009	E-W(2):	0.390 *
	TH	2.00	1,071	3,200	0.335 *	V/C:	0.667
	LT	1.00	43	1,600	0.027	Lost Time:	0.100
Northbound	RT	1.00	98	1,600	0.048	ITS:	0.000
	TH	2.00	523	3,200	0.163	ICU:	0.767
	LT	1.00	150	1,600	0.094 *		
Eastbound	RT	1.00	91	1,600	0.010		
	TH	2.00	411	3,200	0.129	LOS:	C
	LT	1.00	88	1,600	0.055 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	114	1,600	0.019	N-S(1):	0.301 *
	TH	2.00	761	3,200	0.238	N-S(2):	0.299
	LT	1.00	97	1,600	0.060 *	E-W(1):	0.445 *
Westbound	RT	1.00	52	1,600	0.002	E-W(2):	0.263
	TH	2.00	506	3,200	0.158	V/C:	0.746
	LT	1.00	123	1,600	0.077 *	Lost Time:	0.100
Northbound	RT	1.00	215	1,600	0.096	ITS:	0.000
	TH	2.00	771	3,200	0.241 *	ICU:	0.846
	LT	1.00	97	1,600	0.061		
Eastbound	RT	1.00	107	1,600	0.036		
	TH	2.00	1,178	3,200	0.368 *	LOS:	D
	LT	1.00	168	1,600	0.105		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 20 - Bloomfield Ave & Lakeland Rd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	129	1,600	0.064	N-S(1):	0.188
	TH	2.00	685	3,200	0.214 *	N-S(2):	0.248 *
	LT	1.00	96	1,600	0.060	E-W(1):	0.180 *
Westbound	RT	1.00	53	1,600	0.003	E-W(2):	0.054
	TH	1.00	34	1,600	0.022	V/C:	0.428
	LT	1.00	152	1,600	0.095 *	Lost Time:	0.100
Northbound	RT	0.00	32	0	0.000	ITS:	0.000
	TH	2.00	376	3,200	0.128	ICU:	0.528
	LT	1.00	55	1,600	0.034 *		
Eastbound	RT	1.00	72	1,600	0.028		
	TH	1.00	137	1,600	0.085 *	LOS:	A
	LT	1.00	52	1,600	0.032		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	10	1,600	0.000	N-S(1):	0.325 *
	TH	2.00	770	3,200	0.241	N-S(2):	0.285
	LT	1.00	103	1,600	0.065 *	E-W(1):	0.135
Westbound	RT	1.00	105	1,600	0.034	E-W(2):	0.185 *
	TH	1.00	172	1,600	0.107 *	V/C:	0.510
	LT	1.00	124	1,600	0.078	Lost Time:	0.100
Northbound	RT	0.00	164	0	0.000	ITS:	0.000
	TH	2.00	668	3,200	0.260 *	ICU:	0.610
	LT	1.00	70	1,600	0.044		
Eastbound	RT	1.00	107	1,600	0.045		
	TH	1.00	91	1,600	0.057	LOS:	B
	LT	1.00	124	1,600	0.078 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 21 - Bloomfield Ave & Imperial Highway  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	141	1,600	0.021	N-S(1): 0.205
	TH	2.00	497	3,200	0.155 *	N-S(2): 0.206 *
	LT	1.00	92	1,600	0.057	E-W(1): 0.291
Westbound	RT	0.00	81	0	0.000	E-W(2): 0.382 *
	TH	3.00	1,104	4,800	0.247 *	V/C: 0.588
	LT	1.00	243	1,600	0.152	Lost Time: 0.100
Northbound	RT	1.00	241	1,600	0.075	ITS: 0.000
	TH	2.00	472	3,200	0.148	
	LT	1.00	81	1,600	0.051 *	
Eastbound	RT	1.00	11	1,600	0.000	ICU: 0.688
	TH	3.00	667	4,800	0.139	
	LT	1.00	217	1,600	0.135 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	240	1,600	0.095	N-S(1): 0.269
	TH	2.00	719	3,200	0.225 *	N-S(2): 0.296 *
	LT	1.00	158	1,600	0.099	E-W(1): 0.363 *
Westbound	RT	0.00	77	0	0.000	E-W(2): 0.335
	TH	3.00	1,000	4,800	0.225	V/C: 0.659
	LT	1.00	226	1,600	0.141 *	Lost Time: 0.100
Northbound	RT	1.00	385	1,600	0.170	ITS: 0.000
	TH	2.00	445	3,200	0.139	
	LT	1.00	113	1,600	0.071 *	
Eastbound	RT	1.00	30	1,600	0.000	ICU: 0.759
	TH	3.00	1,064	4,800	0.222 *	
	LT	1.00	176	1,600	0.110	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 22 - Carmenita Rd & Imperial Highway  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	33	1,600	0.000	N-S(1):	0.241
	TH	2.00	1,006	3,200	0.314 *	N-S(2):	0.422 *
	LT	1.00	74	1,600	0.046	E-W(1):	0.214 *
Westbound	RT	0.00	73	0	0.000	E-W(2):	0.207
	TH	3.00	726	4,800	0.166	V/C:	0.636
	LT	1.00	119	1,600	0.075 *	Lost Time:	0.100
Northbound	RT	1.00	78	1,600	0.012	ITS:	0.000
	TH	2.00	623	3,200	0.195	ICU:	0.736
	LT	1.00	173	1,600	0.108 *		
Eastbound	RT	0.00	197	0	0.000		
	TH	3.00	472	4,800	0.139 *	LOS:	C
	LT	1.00	65	1,600	0.041		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	70	1,600	0.006	N-S(1):	0.376 *
	TH	2.00	754	3,200	0.236	N-S(2):	0.330
	LT	1.00	53	1,600	0.033 *	E-W(1):	0.256 *
Westbound	RT	0.00	193	0	0.000	E-W(2):	0.250
	TH	3.00	643	4,800	0.174	V/C:	0.632
	LT	1.00	109	1,600	0.068 *	Lost Time:	0.100
Northbound	RT	1.00	183	1,600	0.081	ITS:	0.000
	TH	2.00	1,098	3,200	0.343 *	ICU:	0.732
	LT	1.00	150	1,600	0.094		
Eastbound	RT	0.00	158	0	0.000		
	TH	3.00	745	4,800	0.188 *	LOS:	C
	LT	1.00	122	1,600	0.076		

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 23 - Carmenita Rd & Rosecrans Ave  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	394	1,600	0.151	N-S(1): 0.270
	TH	2.00	1,043	3,200	0.326 *	N-S(2): 0.361 *
	LT	1.00	60	1,600	0.038	E-W(1): 0.214 *
Westbound	RT	0.00	26	0	0.000	E-W(2): 0.209
	TH	3.00	523	4,800	0.114	V/C: 0.575
	LT	1.00	100	1,600	0.063 *	Lost Time: 0.100
Northbound	RT	1.00	145	1,600	0.059	ITS: 0.000
	TH	2.00	743	3,200	0.232	
	LT	1.00	57	1,600	0.035 *	
Eastbound	RT	0.00	56	0	0.000	ICU: 0.675
	TH	2.00	427	3,200	0.151 *	
	LT	2.00	274	2,880	0.095	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	363	1,600	0.106	N-S(1): 0.384 *
	TH	2.00	975	3,200	0.305	N-S(2): 0.372
	LT	1.00	49	1,600	0.030 *	E-W(1): 0.211
Westbound	RT	0.00	162	0	0.000	E-W(2): 0.246 *
	TH	3.00	431	4,800	0.124 *	V/C: 0.630
	LT	1.00	96	1,600	0.060	Lost Time: 0.100
Northbound	RT	1.00	121	1,600	0.045	ITS: 0.000
	TH	2.00	1,132	3,200	0.354 *	
	LT	1.00	107	1,600	0.067	
Eastbound	RT	0.00	68	0	0.000	ICU: 0.730
	TH	2.00	416	3,200	0.151	
	LT	2.00	350	2,880	0.122 *	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 24 - Carmenita Rd & Alondra Blvd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	238	1,600	0.149	N-S(1): 0.244 *
	TH	2.00	392	3,200	0.122	N-S(2): 0.164
	LT	1.00	132	1,600	0.083 *	E-W(1): 0.236
Westbound	RT	1.00	174	1,600	0.067	E-W(2): 0.265 *
	TH	2.00	416	3,200	0.130 *	
	LT	1.00	190	1,600	0.119	V/C: 0.509
Northbound	RT	0.00	77	0	0.000	Lost Time: 0.100
	TH	2.00	439	3,200	0.161 *	ITS: 0.000
	LT	2.00	43	2,880	0.015	
Eastbound	RT	1.00	33	1,600	0.013	ICU: 0.609
	TH	2.00	375	3,200	0.117	
	LT	1.00	217	1,600	0.135 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	137	1,600	0.086	N-S(1): 0.279 *
	TH	2.00	570	3,200	0.178	N-S(2): 0.196
	LT	1.00	83	1,600	0.052 *	E-W(1): 0.260
Westbound	RT	1.00	221	1,600	0.112	E-W(2): 0.355 *
	TH	2.00	703	3,200	0.220 *	
	LT	1.00	134	1,600	0.084	V/C: 0.634
Northbound	RT	0.00	121	0	0.000	Lost Time: 0.100
	TH	2.00	605	3,200	0.227 *	ITS: 0.000
	LT	2.00	53	2,880	0.018	
Eastbound	RT	1.00	55	1,600	0.034	ICU: 0.734
	TH	2.00	564	3,200	0.176	
	LT	1.00	216	1,600	0.135 *	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 25 - Marquardt Ave & Alondra Blvd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	26	1,600	0.012	N-S(1): 0.077
	TH	1.00	62	1,600	0.038 *	N-S(2): 0.087 *
	LT	1.00	51	1,600	0.032	E-W(1): 0.323 *
Westbound	RT	1.00	32	1,600	0.004	E-W(2): 0.226
	TH	2.00	698	3,200	0.218	V/C: 0.410
	LT	1.00	276	1,600	0.172 *	Lost Time: 0.100
Northbound	RT	1.00	198	1,600	0.038	ITS: 0.000
	TH	1.00	72	1,600	0.045	
	LT	1.00	79	1,600	0.049 *	
Eastbound	RT	0.00	68	0	0.000	ICU: 0.510
	TH	2.00	417	3,200	0.151 *	
	LT	1.00	13	1,600	0.008	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	22	1,600	0.010	N-S(1): 0.264 *
	TH	1.00	78	1,600	0.049	N-S(2): 0.120
	LT	1.00	12	1,600	0.007 *	E-W(1): 0.334 *
Westbound	RT	1.00	13	1,600	0.004	E-W(2): 0.252
	TH	2.00	785	3,200	0.245	V/C: 0.598
	LT	1.00	153	1,600	0.096 *	Lost Time: 0.100
Northbound	RT	1.00	487	1,600	0.257 *	ITS: 0.000
	TH	1.00	103	1,600	0.064	
	LT	1.00	114	1,600	0.071	
Eastbound	RT	0.00	112	0	0.000	ICU: 0.698
	TH	2.00	650	3,200	0.238 *	
	LT	1.00	11	1,600	0.007	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 26 - Valley View Ave & Alondra Blvd  
**Description:** Cumulative Conditions (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	504	1,600	0.253	N-S(1): 0.311 *
	TH	2.00	614	3,200	0.192	N-S(2): 0.300
	LT	1.00	77	1,600	0.048 *	E-W(1): 0.271
Westbound	RT	0.00	68	0	0.000	E-W(2): 0.291 *
	TH	3.00	729	4,800	0.166 *	V/C: 0.602
	LT	1.00	334	1,600	0.209	Lost Time: 0.100
Northbound	RT	0.00	330	0	0.000	ITS: 0.000
	TH	2.00	511	3,200	0.263 *	
	LT	2.00	137	2,880	0.047	
Eastbound	RT	0.00	12	0	0.000	ICU: 0.702
	TH	3.00	285	4,800	0.062	
	LT	1.00	200	1,600	0.125 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	497	1,600	0.209	N-S(1): 0.371 *
	TH	2.00	526	3,200	0.164	N-S(2): 0.241
	LT	1.00	111	1,600	0.069 *	E-W(1): 0.325 *
Westbound	RT	0.00	107	0	0.000	E-W(2): 0.318
	TH	3.00	444	4,800	0.115	V/C: 0.696
	LT	1.00	226	1,600	0.141 *	Lost Time: 0.100
Northbound	RT	0.00	166	0	0.000	ITS: 0.000
	TH	2.00	800	3,200	0.302 *	
	LT	2.00	93	2,880	0.032	
Eastbound	RT	0.00	84	0	0.000	ICU: 0.796
	TH	3.00	797	4,800	0.184 *	
	LT	1.00	324	1,600	0.203	LOS: C

\* - Denotes critical movement

## **FUTURE WITH PROJECT LOS CALCULATIONS**

**Project Title:** Santa Fe Springs  
**Intersection:** 1 - Norwalk Blvd & Washington Blvd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	97	1,600	0.039	N-S(1):	0.204
	TH	2.00	553	3,200	0.173 *	N-S(2):	0.280 *
	LT	1.00	173	1,600	0.108	E-W(1):	0.344 *
Westbound	RT	0.00	122	0	0.000	E-W(2):	0.298
	TH	3.00	1,094	4,800	0.253	V/C:	0.624
	LT	1.00	56	1,600	0.035 *	Lost Time:	0.100
Northbound	RT	1.00	33	1,600	0.003	ITS:	0.000
	TH	2.00	308	3,200	0.096	ICU:	0.724
	LT	1.00	172	1,600	0.107 *		
Eastbound	RT	1.00	66	1,600	0.000		
	TH	2.00	988	3,200	0.309 *	LOS:	C
	LT	1.00	72	1,600	0.045		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	105	1,600	0.024	N-S(1):	0.305 *
	TH	2.00	457	3,200	0.143	N-S(2):	0.294
	LT	1.00	144	1,600	0.090 *	E-W(1):	0.392 *
Westbound	RT	0.00	147	0	0.000	E-W(2):	0.377
	TH	3.00	1,263	4,800	0.294	V/C:	0.697
	LT	1.00	71	1,600	0.044 *	Lost Time:	0.100
Northbound	RT	1.00	51	1,600	0.010	ITS:	0.000
	TH	2.00	687	3,200	0.215 *	ICU:	0.797
	LT	1.00	241	1,600	0.151		
Eastbound	RT	1.00	212	1,600	0.057		
	TH	2.00	1,114	3,200	0.348 *	LOS:	C
	LT	1.00	133	1,600	0.083		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 2 - Sorensen Ave & Slauson Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	81	1,600	0.002	N-S(1):	0.150 *
	TH	2.00	307	3,200	0.096	N-S(2):	0.147
	LT	1.00	151	1,600	0.094 *	E-W(1):	0.234
Westbound	RT	0.00	64	0	0.000	E-W(2):	0.279 *
	TH	3.00	803	4,800	0.181 *	V/C:	0.429
	LT	1.00	24	1,600	0.015	Lost Time:	0.100
Northbound	RT	0.00	15	0	0.000	ITS:	0.000
	TH	2.00	165	3,200	0.056 *	ICU:	0.529
	LT	1.00	82	1,600	0.051		
Eastbound	RT	0.00	174	0	0.000		
	TH	3.00	876	4,800	0.219	LOS:	A
	LT	1.00	156	1,600	0.098 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	136	1,600	0.042	N-S(1):	0.267 *
	TH	2.00	231	3,200	0.072	N-S(2):	0.132
	LT	1.00	192	1,600	0.120 *	E-W(1):	0.247
Westbound	RT	0.00	165	0	0.000	E-W(2):	0.297 *
	TH	3.00	845	4,800	0.210 *	V/C:	0.564
	LT	1.00	53	1,600	0.033	Lost Time:	0.100
Northbound	RT	0.00	45	0	0.000	ITS:	0.000
	TH	2.00	426	3,200	0.147 *	ICU:	0.664
	LT	1.00	96	1,600	0.060		
Eastbound	RT	0.00	79	0	0.000		
	TH	3.00	950	4,800	0.214	LOS:	B
	LT	1.00	139	1,600	0.087 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 3 - Norwalk Ave & Los Nietos Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	44	1,600	0.007	N-S(1): 0.101
	TH	2.00	593	3,200	0.185 *	N-S(2): 0.218 *
	LT	1.00	58	1,600	0.037	E-W(1): 0.171 *
Westbound	RT	0.00	72	0	0.000	E-W(2): 0.112
	TH	2.00	156	3,200	0.071	V/C: 0.389
	LT	1.00	72	1,600	0.045 *	Lost Time: 0.100
Northbound	RT	1.00	64	1,600	0.017	ITS: 0.000
	TH	2.00	205	3,200	0.064	
	LT	1.00	53	1,600	0.033 *	
Eastbound	RT	0.00	202	1,600	0.126 *	ICU: 0.489
	TH	2.00	150	1,600	0.094	
	LT	1.00	65	1,600	0.041	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	101	1,600	0.044	N-S(1): 0.236
	TH	2.00	588	3,200	0.184 *	N-S(2): 0.253 *
	LT	1.00	33	1,600	0.020	E-W(1): 0.119
Westbound	RT	0.00	32	0	0.000	E-W(2): 0.175 *
	TH	2.00	409	3,200	0.138 *	V/C: 0.428
	LT	1.00	84	1,600	0.052	Lost Time: 0.100
Northbound	RT	1.00	78	1,600	0.022	ITS: 0.000
	TH	2.00	690	3,200	0.216	
	LT	1.00	110	1,600	0.069 *	
Eastbound	RT	0.00	107	1,600	0.067	ICU: 0.528
	TH	2.00	90	1,600	0.056	
	LT	1.00	59	1,600	0.037 *	LOS: A

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 4 - Santa Fe Springs Rd & Los Nietos Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	23	1,600	0.004	N-S(1):	0.226
	TH	2.00	697	3,200	0.218 *	N-S(2):	0.275 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.230 *
Westbound	RT	1.00	109	1,600	0.031	E-W(2):	0.201
	TH	1.00	288	1,600	0.180	V/C:	0.505
	LT	1.00	119	1,600	0.074 *	Lost Time:	0.100
Northbound	RT	1.00	43	1,600	0.000	ITS:	0.000
	TH	2.00	482	3,200	0.151	ICU:	0.605
	LT	1.00	91	1,600	0.057 *	LOS:	B
Eastbound	RT	1.00	139	1,600	0.059		
	TH	1.00	249	1,600	0.156 *		
	LT	1.00	33	1,600	0.021		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	73	1,600	0.025	N-S(1):	0.371 *
	TH	2.00	646	3,200	0.202	N-S(2):	0.301
	LT	1.00	148	1,600	0.093 *	E-W(1):	0.234
Westbound	RT	1.00	222	1,600	0.093	E-W(2):	0.271 *
	TH	1.00	368	1,600	0.230 *	V/C:	0.642
	LT	1.00	64	1,600	0.040	Lost Time:	0.100
Northbound	RT	1.00	62	1,600	0.018	ITS:	0.000
	TH	2.00	891	3,200	0.278 *	ICU:	0.742
	LT	1.00	159	1,600	0.099	LOS:	C
Eastbound	RT	1.00	81	1,600	0.001		
	TH	1.00	311	1,600	0.194		
	LT	1.00	66	1,600	0.041 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 5 - I-605 SB Ramps & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : EBR, WBR  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	34	1,600	0.000	N-S(1):	0.095 *
	TH	0.19	10	309	0.032	N-S(2):	0.051
	LT	1.81	94	2,602	0.036 *	E-W(1):	0.397
Westbound	RT	1.00	1,029	1,600	0.607 *	E-W(2):	0.762 *
	TH	2.00	687	3,200	0.215	V/C:	0.857
	LT	1.00	12	1,600	0.007	Lost Time:	0.100
Northbound	RT	0.00	21	0	0.000	ITS:	0.000
	TH	1.00	42	1,600	0.059 *	ICU:	0.957
	LT	0.00	31	1,600	0.019		
Eastbound	RT	1.00	20	1,600	0.000		
	TH	2.00	1,250	3,200	0.390	LOS:	E
	LT	1.00	248	1,600	0.155 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	63	1,600	0.000	N-S(1):	0.081 *
	TH	0.20	10	317	0.032	N-S(2):	0.045
	LT	1.80	91	2,595	0.035 *	E-W(1):	0.305
Westbound	RT	1.00	1,245	1,600	0.743 *	E-W(2):	0.860 *
	TH	2.00	1,134	3,200	0.354	V/C:	0.941
	LT	1.00	11	1,600	0.007	Lost Time:	0.100
Northbound	RT	0.00	11	0	0.000	ITS:	0.000
	TH	1.00	42	1,600	0.046 *	ICU:	1.041
	LT	0.00	21	1,600	0.013		
Eastbound	RT	1.00	72	1,600	0.032		
	TH	2.00	953	3,200	0.298	LOS:	F
	LT	1.00	187	1,600	0.117 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 6 - I-605 NB Ramps & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.065 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.065 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.393 *
Westbound	RT	1.00	317	1,600	0.198	E-W(2): 0.347
	TH	3.00	1,497	4,800	0.312	V/C: 0.458
	LT	1.00	10	1,600	0.006 *	Lost Time: 0.100
Northbound	RT	1.00	15	1,600	0.006	ITS: 0.000
	TH	0.49	52	791	0.065 *	
	LT	0.51	53	809	0.065 *	
Eastbound	RT	0.00	42	0	0.000	ICU: 0.558
	TH	3.00	1,818	4,800	0.387 *	
	LT	1.00	57	1,600	0.035	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.050 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.050 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.297
Westbound	RT	1.00	185	1,600	0.116	E-W(2): 0.515 *
	TH	3.00	1,885	4,800	0.393 *	V/C: 0.565
	LT	1.00	11	1,600	0.007	Lost Time: 0.100
Northbound	RT	1.00	21	1,600	0.009	ITS: 0.000
	TH	0.37	30	596	0.050 *	
	LT	0.63	51	1,004	0.050 *	
Eastbound	RT	0.00	52	0	0.000	ICU: 0.665
	TH	3.00	1,339	4,800	0.290	
	LT	1.00	195	1,600	0.122 *	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 7 - Orr and Day Rd & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	526	1,600	0.294 *	N-S(1): 0.086
	TH	2.00	128	3,200	0.040	N-S(2): 0.342 *
	LT	1.00	32	1,600	0.020	E-W(1): 0.384 *
Westbound	RT	0.00	11	0	0.000	E-W(2): 0.289
	TH	3.00	1,042	4,800	0.219	V/C: 0.726
	LT	1.00	57	1,600	0.035 *	Lost Time: 0.100
Northbound	RT	0.00	106	1,600	0.066	ITS: 0.000
	TH	2.00	106	1,600	0.066	
	LT	2.00	138	2,880	0.048 *	
Eastbound	RT	0.00	278	0	0.000	ICU: 0.826
	TH	3.00	1,399	4,800	0.349 *	
	LT	1.00	112	1,600	0.070	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	593	1,600	0.320 *	N-S(1): 0.188
	TH	2.00	276	3,200	0.086	N-S(2): 0.384 *
	LT	1.00	60	1,600	0.038	E-W(1): 0.306
Westbound	RT	0.00	12	0	0.000	E-W(2): 0.354 *
	TH	3.00	1,196	4,800	0.252 *	V/C: 0.738
	LT	1.00	81	1,600	0.051	Lost Time: 0.100
Northbound	RT	0.00	114	0	0.000	ITS: 0.000
	TH	2.00	367	3,200	0.150	
	LT	2.00	185	2,880	0.064 *	
Eastbound	RT	0.00	112	0	0.000	ICU: 0.838
	TH	3.00	1,114	4,800	0.255	
	LT	1.00	163	1,600	0.102 *	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 8 - Pioneer Blvd & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	25	1,600	0.000	N-S(1): 0.065
	TH	2.00	300	3,200	0.094 *	N-S(2): 0.129 *
	LT	1.00	42	1,600	0.026	E-W(1): 0.321 *
Westbound	RT	0.00	73	0	0.000	E-W(2): 0.265
	TH	3.00	1,045	4,800	0.233	V/C: 0.450
	LT	1.00	55	1,600	0.034 *	Lost Time: 0.100
Northbound	RT	1.00	77	1,600	0.031	ITS: 0.000
	TH	2.00	126	3,200	0.039	
	LT	1.00	56	1,600	0.035 *	
Eastbound	RT	0.00	127	0	0.000	ICU: 0.550
	TH	3.00	1,252	4,800	0.287 *	
	LT	1.00	52	1,600	0.032	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	55	1,600	0.023	N-S(1): 0.182 *
	TH	2.00	215	3,200	0.067	N-S(2): 0.120
	LT	1.00	83	1,600	0.052 *	E-W(1): 0.320 *
Westbound	RT	0.00	40	0	0.000	E-W(2): 0.275
	TH	3.00	1,176	4,800	0.253	V/C: 0.502
	LT	1.00	128	1,600	0.080 *	Lost Time: 0.100
Northbound	RT	1.00	94	1,600	0.019	ITS: 0.000
	TH	2.00	418	3,200	0.130 *	
	LT	1.00	84	1,600	0.053	
Eastbound	RT	0.00	188	0	0.000	ICU: 0.602
	TH	3.00	963	4,800	0.240 *	
	LT	1.00	35	1,600	0.022	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 9 - Norwalk Blvd & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	171	1,600	0.000	N-S(1):	0.156
	TH	2.00	552	3,200	0.172 *	N-S(2):	0.316 *
	LT	1.00	49	1,600	0.030	E-W(1):	0.245
Westbound	RT	0.00	48	0	0.000	E-W(2):	0.304 *
	TH	3.00	769	4,800	0.170 *	V/C:	0.620
	LT	1.00	117	1,600	0.073	Lost Time:	0.100
Northbound	RT	1.00	49	1,600	0.000	ITS:	0.000
	TH	2.00	402	3,200	0.126	ICU:	0.720
	LT	1.00	231	1,600	0.144 *		
Eastbound	RT	1.00	35	1,600	0.000		
	TH	3.00	827	4,800	0.172	LOS:	C
	LT	1.00	214	1,600	0.134 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	199	1,600	0.059	N-S(1):	0.247
	TH	2.00	593	3,200	0.185 *	N-S(2):	0.273 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.242 *
Westbound	RT	0.00	11	0	0.000	E-W(2):	0.231
	TH	3.00	783	4,800	0.165	V/C:	0.515
	LT	1.00	107	1,600	0.067 *	Lost Time:	0.100
Northbound	RT	1.00	96	1,600	0.027	ITS:	0.000
	TH	2.00	629	3,200	0.197	ICU:	0.615
	LT	1.00	141	1,600	0.088 *		
Eastbound	RT	1.00	108	1,600	0.067		
	TH	3.00	838	4,800	0.175 *	LOS:	B
	LT	1.00	105	1,600	0.066		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 10 - Santa Fe Springs Rd & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	177	1,600	0.063	N-S(1):	0.192
	TH	2.00	700	3,200	0.219 *	N-S(2):	0.272 *
	LT	1.00	48	1,600	0.030	E-W(1):	0.170
Westbound	RT	1.00	131	1,600	0.067	E-W(2):	0.242 *
	TH	3.00	699	4,800	0.146 *	V/C:	0.514
	LT	1.00	65	1,600	0.040	Lost Time:	0.100
Northbound	RT	1.00	57	1,600	0.015	ITS:	0.000
	TH	2.00	520	3,200	0.162	ICU:	0.614
	LT	1.00	85	1,600	0.053 *	LOS:	B
Eastbound	RT	1.00	85	1,600	0.026		
	TH	3.00	623	4,800	0.130		
	LT	1.00	153	1,600	0.096 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	196	1,600	0.090	N-S(1):	0.330 *
	TH	2.00	661	3,200	0.207	N-S(2):	0.228
	LT	1.00	85	1,600	0.053 *	E-W(1):	0.186
Westbound	RT	1.00	65	1,600	0.014	E-W(2):	0.200 *
	TH	3.00	641	4,800	0.134 *	V/C:	0.530
	LT	1.00	76	1,600	0.047	Lost Time:	0.100
Northbound	RT	1.00	11	1,600	0.000	ITS:	0.000
	TH	2.00	887	3,200	0.277 *	ICU:	0.630
	LT	1.00	34	1,600	0.021	LOS:	B
Eastbound	RT	1.00	72	1,600	0.034		
	TH	3.00	669	4,800	0.139		
	LT	1.00	106	1,600	0.066 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 11 - Shoemaker Ave & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	68	0	0.000	N-S(1): 0.094
	TH	2.00	376	3,200	0.139 *	N-S(2): 0.199 *
	LT	1.00	23	1,600	0.015	E-W(1): 0.178
Westbound	RT	0.00	34	0	0.000	E-W(2): 0.192 *
	TH	3.00	627	4,800	0.138 *	V/C: 0.391
	LT	1.00	84	1,600	0.052	Lost Time: 0.100
Northbound	RT	0.00	31	0	0.000	ITS: 0.000
	TH	2.00	222	3,200	0.079	
	LT	1.00	97	1,600	0.060 *	
Eastbound	RT	0.00	128	0	0.000	ICU: 0.491
	TH	3.00	477	4,800	0.126	
	LT	1.00	87	1,600	0.054 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	67	0	0.000	N-S(1): 0.209 *
	TH	2.00	311	3,200	0.118	N-S(2): 0.187
	LT	1.00	30	1,600	0.019 *	E-W(1): 0.201 *
Westbound	RT	0.00	31	0	0.000	E-W(2): 0.124
	TH	3.00	529	4,800	0.117	V/C: 0.410
	LT	1.00	35	1,600	0.022 *	Lost Time: 0.100
Northbound	RT	0.00	67	0	0.000	ITS: 0.000
	TH	2.00	540	3,200	0.190 *	
	LT	1.00	110	1,600	0.069	
Eastbound	RT	0.00	100	0	0.000	ICU: 0.510
	TH	3.00	760	4,800	0.179 *	
	LT	1.00	11	1,600	0.007	LOS: A

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 12 - Painter Ave & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : Y  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	34	1,600	0.007	N-S(1):	0.166 *
	TH	0.81	133	1,299	0.102	N-S(2):	0.000
	LT	1.19	195	1,711	0.114 *	E-W(1):	0.123
Westbound	RT	0.00	288	0	0.000	E-W(2):	0.228 *
	TH	3.00	671	4,800	0.200 *	V/C:	0.394
	LT	1.00	41	1,600	0.026	Lost Time:	0.100
Northbound	RT	0.00	20	0	0.000	ITS:	0.000
	TH	2.00	109	1,600	0.052 *	ICU:	0.494
	LT	0.00	38	1,600	0.023		
Eastbound	RT	0.00	42	0	0.000		
	TH	3.00	424	4,800	0.097	LOS:	A
	LT	1.00	45	1,600	0.028 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	33	1,600	0.003	N-S(1):	0.215 *
	TH	0.44	84	703	0.119	N-S(2):	0.000
	LT	1.56	298	2,247	0.133 *	E-W(1):	0.199
Westbound	RT	0.00	303	0	0.000	E-W(2):	0.293 *
	TH	3.00	522	3,200	0.258 *	V/C:	0.508
	LT	1.00	33	1,600	0.020	Lost Time:	0.100
Northbound	RT	0.00	31	0	0.000	ITS:	0.000
	TH	2.00	190	1,600	0.082 *	ICU:	0.608
	LT	0.00	41	1,600	0.025		
Eastbound	RT	0.00	44	0	0.000		
	TH	3.00	817	4,800	0.179	LOS:	B
	LT	1.00	55	1,600	0.035 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 13 - Carmenita Rd & Telegraph Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	75	1,600	0.026	N-S(1):	0.223
	TH	2.00	473	3,200	0.148 *	N-S(2):	0.225 *
	LT	1.00	165	1,600	0.103	E-W(1):	0.187
Westbound	RT	0.00	128	0	0.000	E-W(2):	0.223 *
	TH	3.00	741	4,800	0.181 *	V/C:	0.448
	LT	1.00	120	1,600	0.075	Lost Time:	0.100
Northbound	RT	1.00	85	1,600	0.016	ITS:	0.000
	TH	2.00	385	3,200	0.120	ICU:	0.548
	LT	1.00	123	1,600	0.077 *		
Eastbound	RT	0.00	109	0	0.000		
	TH	3.00	428	4,800	0.112	LOS:	A
	LT	1.00	67	1,600	0.042 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	97	1,600	0.013	N-S(1):	0.290 *
	TH	2.00	512	3,200	0.160	N-S(2):	0.241
	LT	1.00	112	1,600	0.070 *	E-W(1):	0.286 *
Westbound	RT	0.00	214	0	0.000	E-W(2):	0.254
	TH	3.00	551	4,800	0.159	V/C:	0.576
	LT	1.00	155	1,600	0.097 *	Lost Time:	0.100
Northbound	RT	1.00	155	1,600	0.048	ITS:	0.000
	TH	2.00	705	3,200	0.220 *	ICU:	0.676
	LT	1.00	129	1,600	0.081		
Eastbound	RT	0.00	107	0	0.000		
	TH	3.00	801	4,800	0.189 *	LOS:	B
	LT	1.00	152	1,600	0.095		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 14 - Orr and Day Rd & Florence Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : Y  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	2.00	362	3,200	0.084 *	N-S(1): 0.100 *
	TH	0.27	10	437	0.023	N-S(2): 0.000
	LT	1.73	63	2,486	0.025	E-W(1): 0.278
Westbound	RT	0.00	125	0	0.000	E-W(2): 0.332 *
	TH	3.00	1,191	4,800	0.274 *	V/C: 0.432
	LT	1.00	10	1,600	0.006	Lost Time: 0.100
Northbound	RT	0.00	12	0	0.000	ITS: 0.000
	TH	1.42	20	2,276	0.014	
	LT	1.58	36	2,272	0.016 *	
Eastbound	RT	0.00	12	0	0.000	ICU: 0.532
	TH	3.00	1,294	4,800	0.272	
	LT	2.00	166	2,880	0.058 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	2.00	334	3,200	0.030	N-S(1): 0.063 *
	TH	0.30	20	477	0.042	N-S(2): 0.000
	LT	1.70	114	2,451	0.047 *	E-W(1): 0.247
Westbound	RT	0.00	116	0	0.000	E-W(2): 0.396 *
	TH	3.00	1,076	4,800	0.248 *	V/C: 0.459
	LT	1.00	0	1,600	0.000	Lost Time: 0.100
Northbound	RT	0.00	10	0	0.000	ITS: 0.000
	TH	2.00	40	3,200	0.016 *	
	LT	1.00	21	1,600	0.013	
Eastbound	RT	0.00	20	0	0.000	ICU: 0.559
	TH	3.00	1,166	4,800	0.247	
	LT	2.00	426	2,880	0.148 *	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 15 - Pioneer Blvd & Florence Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	44	0	0.000	N-S(1): 0.137
	TH	2.00	381	3,200	0.133 *	N-S(2): 0.201 *
	LT	1.00	51	1,600	0.032	E-W(1): 0.410
Westbound	RT	1.00	78	1,600	0.049	E-W(2): 0.416 *
	TH	2.00	1,166	3,200	0.365 *	V/C: 0.617
	LT	1.00	54	1,600	0.034	Lost Time: 0.100
Northbound	RT	0.00	104	0	0.000	ITS: 0.000
	TH	2.00	231	3,200	0.105	
	LT	2.00	196	2,880	0.068 *	
Eastbound	RT	1.00	117	1,600	0.073	ICU: 0.717
	TH	2.00	1,202	3,200	0.376	
	LT	1.00	82	1,600	0.051 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	72	0	0.000	N-S(1): 0.229 *
	TH	2.00	479	3,200	0.172	N-S(2): 0.193
	LT	1.00	83	1,600	0.052 *	E-W(1): 0.354
Westbound	RT	1.00	82	1,600	0.025	E-W(2): 0.448 *
	TH	2.00	1,229	3,200	0.384 *	V/C: 0.677
	LT	1.00	71	1,600	0.044	Lost Time: 0.100
Northbound	RT	0.00	186	0	0.000	ITS: 0.000
	TH	2.00	382	3,200	0.177 *	
	LT	2.00	61	2,880	0.021	
Eastbound	RT	1.00	193	1,600	0.110	ICU: 0.777
	TH	2.00	991	3,200	0.310	
	LT	1.00	103	1,600	0.064 *	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 16 - Norwalk Blvd & Florence Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	180	1,600	0.055	N-S(1): 0.205 *
	TH	2.00	348	3,200	0.109	N-S(2): 0.186
	LT	1.00	104	1,600	0.065 *	E-W(1): 0.392
Westbound	RT	1.00	46	1,600	0.000	E-W(2): 0.432 *
	TH	2.00	1,017	3,200	0.318 *	V/C: 0.637
	LT	1.00	117	1,600	0.073	Lost Time: 0.100
Northbound	RT	1.00	144	1,600	0.054	ITS: 0.000
	TH	2.00	446	3,200	0.140 *	
	LT	1.00	123	1,600	0.077	
Eastbound	RT	1.00	155	1,600	0.059	ICU: 0.737
	TH	2.00	1,021	3,200	0.319	
	LT	1.00	182	1,600	0.114 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	166	1,600	0.100	N-S(1): 0.279
	TH	2.00	607	3,200	0.190 *	N-S(2): 0.287 *
	LT	1.00	121	1,600	0.075	E-W(1): 0.430 *
Westbound	RT	1.00	70	1,600	0.006	E-W(2): 0.298
	TH	2.00	927	3,200	0.290	V/C: 0.717
	LT	1.00	153	1,600	0.096 *	Lost Time: 0.100
Northbound	RT	1.00	76	1,600	0.000	ITS: 0.000
	TH	2.00	654	3,200	0.204	
	LT	1.00	155	1,600	0.097 *	
Eastbound	RT	1.00	137	1,600	0.037	ICU: 0.817
	TH	2.00	1,069	3,200	0.334 *	
	LT	1.00	12	1,600	0.008	LOS: D

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 17 - Bloomfield Ave & Florence Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

OLA Movements :  
FF Movements:

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	48	1,600	0.000	N-S(1):	0.157
	TH	2.00	701	3,200	0.219 *	N-S(2):	0.263 *
	LT	1.00	42	1,600	0.026	E-W(1):	0.260
Westbound	RT	1.00	114	1,600	0.058	E-W(2):	0.389 *
	TH	2.00	1,003	3,200	0.313 *	V/C:	0.652
	LT	1.00	40	1,600	0.025	Lost Time:	0.100
Northbound	RT	1.00	53	1,600	0.020	ITS:	0.000
	TH	2.00	418	3,200	0.131		
	LT	1.00	71	1,600	0.044 *		
Eastbound	RT	1.00	173	1,600	0.086	ICU:	0.752
	TH	2.00	753	3,200	0.235		
	LT	1.00	122	1,600	0.076 *	LOS:	C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	125	1,600	0.041	N-S(1):	0.258
	TH	2.00	663	3,200	0.207 *	N-S(2):	0.280 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.386 *
Westbound	RT	1.00	60	1,600	0.012	E-W(2):	0.313
	TH	2.00	766	3,200	0.239	V/C:	0.666
	LT	1.00	171	1,600	0.107 *	Lost Time:	0.100
Northbound	RT	1.00	143	1,600	0.036	ITS:	0.000
	TH	2.00	665	3,200	0.208		
	LT	1.00	116	1,600	0.073 *		
Eastbound	RT	1.00	167	1,600	0.068	ICU:	0.766
	TH	2.00	894	3,200	0.279 *		
	LT	1.00	118	1,600	0.074	LOS:	C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 18 - Shoemaker Ave & Florence Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	99	0	0.000	N-S(1): 0.111
	TH	2.00	418	3,200	0.162 *	N-S(2): 0.233 *
	LT	1.00	25	1,600	0.016	E-W(1): 0.274
Westbound	RT	1.00	63	1,600	0.032	E-W(2): 0.377 *
	TH	2.00	1,015	3,200	0.317 *	V/C: 0.610
	LT	1.00	151	1,600	0.095	Lost Time: 0.100
Northbound	RT	1.00	56	1,600	0.000	ITS: 0.000
	TH	2.00	305	3,200	0.095	
	LT	1.00	113	1,600	0.071 *	
Eastbound	RT	1.00	133	1,600	0.048	ICU: 0.710
	TH	2.00	573	3,200	0.179	
	LT	1.00	97	1,600	0.060 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	101	0	0.000	N-S(1): 0.180
	TH	2.00	433	3,200	0.167 *	N-S(2): 0.217 *
	LT	1.00	76	1,600	0.047	E-W(1): 0.354 *
Westbound	RT	1.00	23	1,600	0.000	E-W(2): 0.333
	TH	2.00	774	3,200	0.242	V/C: 0.571
	LT	1.00	62	1,600	0.039 *	Lost Time: 0.100
Northbound	RT	1.00	233	1,600	0.126	ITS: 0.000
	TH	2.00	426	3,200	0.133	
	LT	1.00	80	1,600	0.050 *	
Eastbound	RT	1.00	73	1,600	0.020	ICU: 0.671
	TH	2.00	1,008	3,200	0.315 *	
	LT	1.00	145	1,600	0.091	LOS: B

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 19 - Carmenita Rd & Florence Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	129	1,600	0.053	N-S(1): 0.174
	TH	2.00	565	3,200	0.177 *	N-S(2): 0.271 *
	LT	1.00	33	1,600	0.021	E-W(1): 0.225
Westbound	RT	1.00	31	1,600	0.009	E-W(2): 0.357 *
	TH	2.00	967	3,200	0.302 *	V/C: 0.628
	LT	1.00	139	1,600	0.087	Lost Time: 0.100
Northbound	RT	1.00	87	1,600	0.011	ITS: 0.000
	TH	2.00	491	3,200	0.153	
	LT	1.00	150	1,600	0.094 *	
Eastbound	RT	1.00	91	1,600	0.010	ICU: 0.728
	TH	2.00	443	3,200	0.138	
	LT	1.00	88	1,600	0.055 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	104	1,600	0.015	N-S(1): 0.311 *
	TH	2.00	730	3,200	0.228	N-S(2): 0.289
	LT	1.00	97	1,600	0.060 *	E-W(1): 0.422 *
Westbound	RT	1.00	52	1,600	0.002	E-W(2): 0.257
	TH	2.00	506	3,200	0.158	V/C: 0.733
	LT	1.00	123	1,600	0.077 *	Lost Time: 0.100
Northbound	RT	1.00	225	1,600	0.103	ITS: 0.000
	TH	2.00	803	3,200	0.251 *	
	LT	1.00	97	1,600	0.061	
Eastbound	RT	1.00	107	1,600	0.036	ICU: 0.833
	TH	2.00	1,105	3,200	0.345 *	
	LT	1.00	158	1,600	0.099	LOS: D

\* - Denotes critical movement



**Project Title:** Santa Fe Springs  
**Intersection:** 20 - Bloomfield Ave & Lakeland Rd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	86	1,600	0.044	N-S(1): 0.217
	TH	2.00	685	3,200	0.214 *	N-S(2): 0.248 *
	LT	1.00	96	1,600	0.060	E-W(1): 0.152 *
Westbound	RT	1.00	53	1,600	0.003	E-W(2): 0.055
	TH	1.00	57	1,600	0.036	V/C: 0.400
	LT	1.00	87	1,600	0.054 *	Lost Time: 0.100
Northbound	RT	0.00	64	0	0.000	ITS: 0.000
	TH	2.00	439	3,200	0.157	
	LT	1.00	55	1,600	0.034 *	
Eastbound	RT	1.00	62	1,600	0.022	ICU: 0.500
	TH	1.00	158	1,600	0.098 *	
	LT	1.00	31	1,600	0.019	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	71	1,600	0.020	N-S(1): 0.322 *
	TH	2.00	811	3,200	0.254	N-S(2): 0.304
	LT	1.00	103	1,600	0.065 *	E-W(1): 0.171
Westbound	RT	1.00	105	1,600	0.034	E-W(2): 0.178 *
	TH	1.00	204	1,600	0.128 *	V/C: 0.500
	LT	1.00	124	1,600	0.078	Lost Time: 0.100
Northbound	RT	0.00	94	0	0.000	ITS: 0.000
	TH	2.00	730	3,200	0.257 *	
	LT	1.00	80	1,600	0.050	
Eastbound	RT	1.00	107	1,600	0.042	ICU: 0.600
	TH	1.00	149	1,600	0.093	
	LT	1.00	79	1,600	0.050 *	LOS: A

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 21 - Bloomfield Ave & Imperial Highway  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	141	1,600	0.024	N-S(1):	0.214
	TH	2.00	603	3,200	0.188 *	N-S(2):	0.226 *
	LT	1.00	92	1,600	0.057	E-W(1):	0.324
Westbound	RT	0.00	81	0	0.000	E-W(2):	0.385 *
	TH	3.00	1,150	4,800	0.256 *	V/C:	0.611
	LT	1.00	296	1,600	0.185	Lost Time:	0.100
Northbound	RT	1.00	230	1,600	0.052	ITS:	0.000
	TH	2.00	503	3,200	0.157		
	LT	1.00	61	1,600	0.038 *	ICU:	0.711
Eastbound	RT	1.00	32	1,600	0.001		
	TH	3.00	667	4,800	0.139	LOS:	C
	LT	1.00	206	1,600	0.129 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	219	1,600	0.075	N-S(1):	0.318 *
	TH	2.00	740	3,200	0.231	N-S(2):	0.308
	LT	1.00	158	1,600	0.099 *	E-W(1):	0.346
Westbound	RT	0.00	77	0	0.000	E-W(2):	0.353 *
	TH	3.00	1,022	4,800	0.229 *	V/C:	0.671
	LT	1.00	195	1,600	0.122	Lost Time:	0.100
Northbound	RT	1.00	447	1,600	0.219 *	ITS:	0.000
	TH	2.00	517	3,200	0.162		
	LT	1.00	123	1,600	0.077	ICU:	0.771
Eastbound	RT	1.00	71	1,600	0.006		
	TH	3.00	1,075	4,800	0.224	LOS:	C
	LT	1.00	198	1,600	0.124 *		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 22 - Carmenita Rd & Imperial Highway  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	33	1,600	0.000	N-S(1):	0.221
	TH	2.00	1,038	3,200	0.324 *	N-S(2):	0.432 *
	LT	1.00	53	1,600	0.033	E-W(1):	0.218 *
Westbound	RT	0.00	73	0	0.000	E-W(2):	0.214
	TH	3.00	758	4,800	0.173	V/C:	0.650
	LT	1.00	130	1,600	0.081 *	Lost Time:	0.100
Northbound	RT	1.00	67	1,600	0.001	ITS:	0.000
	TH	2.00	601	3,200	0.188	ICU:	0.750
	LT	1.00	173	1,600	0.108 *		
Eastbound	RT	0.00	197	0	0.000		
	TH	3.00	461	4,800	0.137 *	LOS:	C
	LT	1.00	65	1,600	0.041		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	70	1,600	0.006	N-S(1):	0.402 *
	TH	2.00	712	3,200	0.222	N-S(2):	0.308
	LT	1.00	53	1,600	0.033 *	E-W(1):	0.262 *
Westbound	RT	0.00	161	0	0.000	E-W(2):	0.234
	TH	3.00	600	4,800	0.158	V/C:	0.664
	LT	1.00	130	1,600	0.081 *	Lost Time:	0.100
Northbound	RT	1.00	173	1,600	0.067	ITS:	0.000
	TH	2.00	1,182	3,200	0.369 *	ICU:	0.764
	LT	1.00	138	1,600	0.086		
Eastbound	RT	0.00	158	0	0.000		
	TH	3.00	713	4,800	0.181 *	LOS:	C
	LT	1.00	122	1,600	0.076		

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 23 - Carmenita Rd & Rosecrans Ave  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements : SBR,  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	372	1,600	0.133	N-S(1): 0.267
	TH	2.00	1,134	3,200	0.354 *	N-S(2): 0.389 *
	LT	1.00	60	1,600	0.038	E-W(1): 0.217
Westbound	RT	0.00	26	0	0.000	E-W(2): 0.222 *
	TH	3.00	567	4,800	0.123 *	V/C: 0.611
	LT	1.00	100	1,600	0.063	Lost Time: 0.100
Northbound	RT	1.00	145	1,600	0.059	ITS: 0.000
	TH	2.00	731	3,200	0.229	
	LT	1.00	57	1,600	0.035 *	
Eastbound	RT	0.00	56	0	0.000	ICU: 0.711
	TH	2.00	438	3,200	0.154	
	LT	2.00	285	2,880	0.099 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	342	1,600	0.100	N-S(1): 0.411 *
	TH	2.00	975	3,200	0.305	N-S(2): 0.372
	LT	1.00	49	1,600	0.030 *	E-W(1): 0.235 *
Westbound	RT	0.00	162	0	0.000	E-W(2): 0.235 *
	TH	3.00	421	4,800	0.121	V/C: 0.646
	LT	1.00	107	1,600	0.067 *	Lost Time: 0.100
Northbound	RT	1.00	121	1,600	0.042	ITS: 0.000
	TH	2.00	1,220	3,200	0.381 *	
	LT	1.00	107	1,600	0.067	
Eastbound	RT	0.00	68	0	0.000	ICU: 0.746
	TH	2.00	468	3,200	0.168 *	
	LT	2.00	329	2,880	0.114	LOS: C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 24 - Carmenita Rd & Alondra Blvd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	336	1,600	0.210	N-S(1): 0.246 *
	TH	2.00	476	3,200	0.149	N-S(2): 0.236
	LT	1.00	120	1,600	0.075 *	E-W(1): 0.243
Westbound	RT	1.00	248	1,600	0.117	E-W(2): 0.270 *
	TH	2.00	461	3,200	0.144 *	V/C: 0.516
	LT	1.00	190	1,600	0.119	Lost Time: 0.100
Northbound	RT	0.00	88	0	0.000	ITS: 0.000
	TH	2.00	460	3,200	0.171 *	ICU: 0.616
	LT	2.00	76	2,880	0.026	
Eastbound	RT	1.00	44	1,600	0.014	
	TH	2.00	397	3,200	0.124	LOS: B
	LT	1.00	201	1,600	0.126 *	

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	192	1,600	0.120	N-S(1): 0.349 *
	TH	2.00	560	3,200	0.175	N-S(2): 0.197
	LT	1.00	180	1,600	0.113 *	E-W(1): 0.243
Westbound	RT	1.00	243	1,600	0.095	E-W(2): 0.453 *
	TH	2.00	681	3,200	0.213 *	V/C: 0.802
	LT	1.00	124	1,600	0.077	Lost Time: 0.100
Northbound	RT	0.00	121	0	0.000	ITS: 0.000
	TH	2.00	635	3,200	0.236 *	ICU: 0.902
	LT	2.00	63	2,880	0.022	
Eastbound	RT	1.00	77	1,600	0.048	
	TH	2.00	530	3,200	0.166	LOS: E
	LT	1.00	383	1,600	0.240 *	

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 25 - Marquardt Ave & Alondra Blvd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	26	1,600	0.012	N-S(1):	0.051
	TH	1.00	72	1,600	0.045 *	N-S(2):	0.101 *
	LT	1.00	10	1,600	0.006	E-W(1):	0.363 *
Westbound	RT	1.00	32	1,600	0.017	E-W(2):	0.247
	TH	2.00	764	3,200	0.239	V/C:	0.464
	LT	1.00	327	1,600	0.204 *	Lost Time:	0.100
Northbound	RT	1.00	177	1,600	0.009	ITS:	0.000
	TH	1.00	72	1,600	0.045		
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	79	0	0.000	ICU:	0.564
	TH	2.00	428	3,200	0.159 *		
	LT	1.00	13	1,600	0.008	LOS:	A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	22	1,600	0.010	N-S(1):	0.308 *
	TH	1.00	44	1,600	0.028	N-S(2):	0.106
	LT	1.00	71	1,600	0.045 *	E-W(1):	0.362 *
Westbound	RT	1.00	0	1,600	0.000	E-W(2):	0.249
	TH	2.00	774	3,200	0.242	V/C:	0.670
	LT	1.00	173	1,600	0.108 *	Lost Time:	0.100
Northbound	RT	1.00	507	1,600	0.263 *	ITS:	0.000
	TH	1.00	144	1,600	0.090		
	LT	1.00	125	1,600	0.078		
Eastbound	RT	0.00	173	0	0.000	ICU:	0.770
	TH	2.00	639	3,200	0.254 *		
	LT	1.00	11	1,600	0.007	LOS:	C

\* - Denotes critical movement

**Project Title:** Santa Fe Springs  
**Intersection:** 26 - Valley View Ave & Alondra Blvd  
**Description:** Cumulative Plus-Project (2040)

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 10 %  
ITS: 0 %  
OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	504	1,600	0.256	N-S(1): 0.311 *
	TH	2.00	670	3,200	0.209	N-S(2): 0.278
	LT	1.00	77	1,600	0.048 *	E-W(1): 0.297 *
Westbound	RT	0.00	68	0	0.000	E-W(2): 0.295
	TH	3.00	783	4,800	0.177	V/C: 0.608
	LT	1.00	346	1,600	0.216 *	Lost Time: 0.100
Northbound	RT	0.00	330	0	0.000	ITS: 0.000
	TH	2.00	511	3,200	0.263 *	
	LT	2.00	62	2,880	0.022	
Eastbound	RT	0.00	73	0	0.000	ICU: 0.708
	TH	3.00	318	4,800	0.081 *	
	LT	1.00	189	1,600	0.118	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	487	1,600	0.203	N-S(1): 0.399 *
	TH	2.00	537	3,200	0.168	N-S(2): 0.235
	LT	1.00	111	1,600	0.069 *	E-W(1): 0.329 *
Westbound	RT	0.00	107	0	0.000	E-W(2): 0.320
	TH	3.00	455	4,800	0.117	V/C: 0.728
	LT	1.00	215	1,600	0.134 *	Lost Time: 0.100
Northbound	RT	0.00	202	0	0.000	ITS: 0.000
	TH	2.00	854	3,200	0.330 *	
	LT	2.00	93	2,880	0.032	
Eastbound	RT	0.00	84	0	0.000	ICU: 0.828
	TH	3.00	850	4,800	0.195 *	
	LT	1.00	324	1,600	0.203	LOS: D

\* - Denotes critical movement

# Appendix D:

## TDM Strategies



Transportation Demand Management Strategies

Strategy	Description	VTM Impact	Expected VMT Reduction	Estimated Total Cost <sup>4</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>5</sup>
Adopted Plans							
Provide Pedestrian Network Improvements	Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT.	Encourages people to walk within and to a Project.	CAPCOA: <sup>6</sup> 0%-2% Adjusted: <sup>7</sup> 0.5%-5.7%	High <sup>8</sup>	High	High	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Provide Traffic Calming Measures	Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements.	Encourages people to walk or bicycle, especially for shorter trips.	CAPCOA: 0.25%-1% Adjusted: 0%-1.7%	Low	Low	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Agency Coordination							
Expand Transit Network	Expanding the local transit network by adding or modifying existing transit service to enhance the service near the project site.	Reduction in vehicle trips due to increased transit service hours or coverage. Low end of reduction is typical of project-level implementation.	CAPCOA: 0.1%-8.2% Adjusted: 0.1%-10.5%	High	High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Provide a Bus Rapid Transit System	Providing a Bus Rapid Transit (BRT) system with design features for high quality and cost-effective transit service.	Encourages people to use public transit and therefore reduce VMT.	CAPCOA: 0.02%-3.2%	High	High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Increase Transit Service Frequency/Speed	Reducing transit-passenger travel time through more reduced headways and increased speed and reliability.	Reduction in vehicle trips due to increased transit service hours or coverage. Low end of reduction is typical of project-level implementation.	CAPCOA: 0.02%-2.5% Adjusted: 0.3%-6.3%	Medium/High <sup>9</sup>	Medium/High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>

<sup>4</sup> Cost: Low if cost is thousands; Medium if cost is hundreds of thousands; High if cost is millions.

<sup>5</sup> means the strategy is applicable to the VMT metrics; means the strategy is not applicable to the VMT metrics.

<sup>6</sup> Expected VMT reduction based on: *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), 2010.

<sup>7</sup> Adjusted expected VMT reduction based on new research conducted since publication of CAPCOA guidance in 2010.

<sup>8</sup> For Pedestrian Network Improvements, other improvements associated to rebuilding and providing sidewalks - such as lighting, landscape - may add up to the cost.

<sup>9</sup> Low/Medium cost, or Medium/High cost would depend on the program scale.

Strategy	Description	VTM Impact	Expected VMT Reduction	Estimated Total Cost <sup>4</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>5</sup>
Programs and Policies							
Implement Commute Trip Reduction Programs - Voluntary	Implementing a voluntary Commute Trip Reduction (CTR) program with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. This strategy does not require monitoring, reporting, or established performance standards.	Encourages alternatives to commuting in single-occupancy vehicles.	CAPCOA: 1%-6.2% Adjusted: 1%-6.0%	Medium	Medium	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Implement Commute Trip Reduction Programs – Required Implementation/ Monitoring	Implementing a Commute Trip Reduction (CTR) ordinance. The intent of the ordinance will be to reduce drive-alone travel mode share and encourage alternative modes of travel. The critical components of this strategy are: <ul style="list-style-type: none"><li>Established performance standards (e.g., trip reduction requirements)</li><li>Required implementation</li><li>Regular monitoring and reporting</li></ul>	Commute VMT reduction due to employer- based mode shift program with required monitoring and reporting.	CAPCOA: 4.2%-21.0%	Medium	Medium	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Implement Subsidized or Discounted Transit Program	Providing subsidized/discounted daily or monthly public transit passes or providing free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.	1] Reduction in vehicle trips in response to reduced cost of transit use, assuming that 10-50% of new bus trips replace vehicle trips. 2] Reduction in commute trip VMT due to employee benefits that include transit. 3] Reduction in all vehicle trips due to reduced transit fares system-wide, assuming 25% of new transit trips would have been vehicle trips.	CAPCOA: 0.3%-20% Adjusted: 1] 0.3%-14% 2] 0-16% 3] 0.1%-6.9%	Low	Low	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Provide Employer-Sponsored Vanpool/Shuttle	Implementing an employer-sponsored vanpool or shuttle. A vanpool will usually service employees’ commute to work while a shuttle will service nearby transit stations and surrounding commercial centers.	1] Reduction in commute vehicle trips due to implementing employer- sponsored vanpool and shuttle programs. 2] Reduction in commute vehicle trips due to vanpool incentive programs. 3] Reduction in commute vehicle trips due to employer shuttle programs.	CAPCOA: 0.3%-3.4% Adjusted: 1] 0.5%-5.0% 2] 0.3%-7.4% 3] 1.4%-6.8%	High on the Provider side.	High if Public Provider. Low if Private provider.	Low if Public Provider. High if Private provider.	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Encourage telecommuting and Alternative Work Schedules	Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered start times, flexible schedules, or compressed work weeks.	Reduces the number of days employees need to work and/or shifts commute time outside of peak periods to avoid adding congestion.	CAPCOA: 0.07%-5.5% Adjusted: 0.2%-4.5%	Low IF less than 0.25% of current employees in Santa Fe Springs participate. Medium IF 0.25%-2.5% employees participate. High if >2.5% employees participate.	Depending on the program eligibility	Depending on the program eligibility	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>

Strategy	Description	VTM Impact	Expected VMT Reduction	Estimated Total Cost <sup>4</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>5</sup>
<b>Parking Policy/Pricing</b>							
Limit Parking Supply	Projects can change parking requirements and types of supply within the Project site to encourage "smart growth" development and alternative transportation choices by project residents and employees.	Encourages alternatives to the use of single-occupancy vehicles.	CAPCOA: 5%-12.5% Adjusted: 5%-30% <sup>10</sup>	Low	Low	Low	<ul style="list-style-type: none"> <li>Total VMT per Service Population</li> <li>Home-Based VMT per Capita</li> <li>Home-Based Work VMT per Employee</li> </ul>
Unbundle Parking Costs from Property Cost	Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost.	Reduction in VMT, primarily for residential uses, based on range of elasticities for vehicle ownership in response to increased residential parking fees. Does not account for self-selection. Only applies if the city does not require parking minimums and if on-street parking is priced and managed (i.e., residential parking permit districts).	CAPCOA: 2.6%-13% Adjusted: 2%-12%	Low	Low	Low/Medium depending on specific parking policy.	<ul style="list-style-type: none"> <li>Total VMT per Service Population</li> <li>Home-Based VMT per Capita</li> <li>Home-Based Work VMT per Employee</li> </ul>
<b>Supportive Infrastructure</b>							
Increase Transit Accessibility	Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT.	1] VMT reduction when transit station is provided within 1/2 mile of development (compared to VMT for sites located outside 1/2 mile radius of transit). 2] Reduction in vehicle trips due to implementing Transit Oriented Development (TOD).	CAPCOA: 0.5%-24.6% <sup>14</sup> Adjusted: 0%-5%.	Low	Low	Low	<ul style="list-style-type: none"> <li>Total VMT per Service Population</li> <li>Home-Based VMT per Capita</li> <li>Home-Based Work VMT per Employee</li> </ul>
							<ul style="list-style-type: none"> <li></li> </ul>
Provide Ride-Sharing Programs	Promoting ride-sharing programs through a multi-faceted approach such as: <ul style="list-style-type: none"> <li>Designating a certain percentage of parking spaces for ride sharing vehicles;</li> <li>Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles; and</li> <li>Providing an app or website for coordinating rides.</li> </ul>	Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT.	CAPCOA: 1%-15% Adjusted: 2.5%-8.3%	High on the Provider side.	High	Low	<ul style="list-style-type: none"> <li>Total VMT per Service Population</li> <li>Home-Based VMT per Capita</li> <li>Home-Based Work VMT per Employee</li> </ul>
Implement Commute Trip Reduction Marketing	Implementing marketing strategies to reduce commute trips through new employee orientation of trip reduction and alternative mode options, event promotions and publications.	1] Vehicle trips reduction due to CTR marketing. 2] Reduction in VMT from institutional trips due to targeted behavioral intervention programs.	CAPCOA: 0.8-4.0% Adjusted: 1] 0.9%-26% 2] 1%-6%	Low	Low	Low	<ul style="list-style-type: none"> <li>Total VMT per Service Population</li> <li>Home-Based VMT per Capita</li> <li>Home-Based Work VMT per Employee</li> </ul>

<sup>10</sup> Newer research shows that VMT reductions for residential land use could be up to 30% in suburban locations. VMT reduction in the City of Santa Fe Springs would depend on local factors such as land use, built environment, and parking policies.

Strategy	Description	VTM Impact	Expected VMT Reduction	Estimated Total Cost <sup>4</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>5</sup>
Implement Car-Sharing Program	Implementing car- sharing programs allows people to have on-demand access to a shared fleet of vehicles on an as-needed basis, as a supplement to trips made by non-SOV modes. Transit station-based programs focus on providing the “last-mile” solution and link transit with commuters’ final destinations. Residential-based programs work to substitute entire household based trips. Employer-based programs provide a means for business/day trips for alternative mode commuters and provide a guaranteed ride home option. The reduction shown here assumes a 1%-5% penetration rate.	Reduces need to own a vehicle or the number of household vehicles.	CAPCOA: 0.4%-0.7% Adjusted: 0.3%-1.6%	High on the provider side.	Low	High	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>

# **Appendix E:**

## **Freight Greenhouse Gas Reduction Best Practices**

# Introduction

Transportation is the fastest growing sector of greenhouse gas (GHG) emissions<sup>11</sup> and freight is a substantial contributor – compounded further by the COVID-19 pandemic and the subsequent increase in e-commerce sales<sup>12</sup>. In the state of Oregon alone, transportation is the largest single source of greenhouse gas emissions, primarily from direct combustion of petroleum products. Approximately 62 percent of the emissions are generated from passenger cars and trucks, while 27 percent are from heavy-duty trucks<sup>13</sup>. The purpose of this white paper is to provide a concise summary of freight GHG reduction best practices.

Both the public and private sector play a role in achieving a sustainable freight ecosystem. There is no simple, singular, “silver bullet” solution to reducing GHG emissions. On the one hand, the private sector will continue to seek the most cost-effective solutions, driven by economic efficiencies and customer needs. Private operators and logistic companies often place emphasis on technology and direct supply chain decisions. On the other hand, the public sector can help create the environment for private logistics to capitalize on system efficiencies through a regulatory authority role, and/or an incentive-based policy framework. For example, GHG is a negative externality and cost that is not currently considered in market decisions.

The following list of actions are considered in various cities and can be adopted in Santa Fe Spring as well:

- Prepare a truck parking and loading plan to avoid idling on City Streets
- Create a street design guide for freight movement
- Encourage “last mile” solutions, such as unattended delivery depots
- Create freight distribution districts and increase industrial employment opportunities through updated zoning
- Pilot an off-hour delivery program for the central city
- Explore opportunities for the city to create incentives for electric/hybrid delivery vehicles and charging stations

This paper is organized into two parts: (1) Sustainable Supply Chain Strategies – encompassing technologies, demand management, and other green policies, and (2) Benefits and Costs – including performance measures, monitoring and evaluation, and lessons learned.

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<sup>11</sup>USEPA, 2020. “Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018.” EPA 430-R-20-002.

<sup>12</sup>USDOC, 2020. “U.S. Census Bureau News: Quarterly Retail E-Commerce Sales 3<sup>rd</sup> Quarter 2020.” U.S. Department of Commerce. November, 2020. Accessed on 1/17/21, [www.census.gov/retail/](http://www.census.gov/retail/).

<sup>13</sup>Biennial Energy Report, 2020. “Energy by the Numbers.” Oregon Department of Energy. Accessed 1/17/21, [www.oregon.gov/energy/](http://www.oregon.gov/energy/)

## Top Recommendations

The following is a summary of the top recommendations for reducing GHG emissions from freight trucks. These recommendations are discussed in further detail throughout the report.

### Technologies

- Promote the deployment of near-zero and zero-emission trucks for urban deliveries, port drayage trips, regional, and long-haul trips by providing charging infrastructure and plug-in technologies for extended idling, also known as hoteling. Near-zero emission trucks include plug-in hybrid electric vehicles (PHEV), natural gas vehicles (NGV), and liquefied petroleum gas (LPG) vehicles. Develop incentive programs and collaborate directly with key stakeholders. The image below shows a prototype Mack heavy duty plug-in hybrid truck part of the e-Highway demonstration near the Ports of Long Beach and Los Angeles, California<sup>14</sup>.



Image source: *Green Car Congress, 2017*

- Encourage deployment of alternative fueled vehicles and fueling infrastructure through advancement of new technologies as a pathway to electric vehicles.
- Incentivize the purchase of trucks that provide fuel saving technologies modeled after California Air Resource Board rules, such as the Advanced Clean Trucks regulation approved in June 2020.
- Incentivize (or regulate) the use of cargo bikes in denser areas for the first-/last-mile delivery.

### Demand Management

- Promote off-peak delivery pilots for larger size trucks to service the urban core.
- Make improvements in the ability of trucks to find parking, particularly in dense areas, as this avoids trucks circling/cruising around to find a spot, or parking in a travel lane and causing congestion/safety conflict. This could be achieved through a detailed truck parking needs assessment that considers total delivery demand by location and compares

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<sup>14</sup>"Prototype Mack plug-in hybrid truck part of e-Highway Demo." Green Car Congress, 2017. <https://www.greencarcongress.com/2017/12/20171209-mack.html>

it to curbside delivery zones and off-street truck parking availability. The implementation of a real-time delivery zone reservation system may provide a long-term solution.

#### *Other Green Policies*

- Implement a Low Emission Zone (LEZ) in the downtown urban core or pilot a Zero Emissions Delivery Zone (ZEDZ)<sup>15</sup>.
- Encourage delivery lockers (Parcel Port, Amazon Locker/Hub) and pack-stations through new residential/commercial building codes.
- Rezone to allow for urban consolidation centers and freight villages/logistics parks.

#### *Performance Measures / Monitoring & Evaluation*

- Develop performance measures that are tied to a specific goal/target, in order to measure and quantify the effectiveness of the various implementation measures. The metrics should be documented and shared with the public as a way of being transparent with the community being served.
- Quantifying the benefits can help justify the costs for implementing the GHG reduction strategies, and a robust monitoring & evaluation system can help achieve accountability.

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<sup>15</sup> <https://lincubator.org/zedz/> pilot studies have recently started in several cities in the US such as Santa Monica. Further information is available here: <https://www.santamonica.gov/press/2021/02/25/laci-launches-first-in-nation-zero-emissions-delivery-zone-with-city-of-santa-monica-and-partners-including-nissan-ikea>



# Part 1 – Sustainable Supply Chain Strategies Best Practices

The sustainable supply chain strategies are assessed through two dimensions- *geography* (or socio-political context) and *emission source type*. Different freight modes (truck, rail, vessel, etc.) will have specific supply chain strategies, and these strategies will also vary based on the location, land use, and regulatory framework of the area. Given the context of the City of Santa Fe Spring for freight, this white paper focuses on trucks (heavy, medium, and light) and urban delivery. The strategies are organized into the following three categories: (1) Technologies, (2) Demand Management, and (3) Other Green Policies.

## 1.1 Technologies

The *Technologies* category comprises of six elements that aim to reduce GHG emissions across the supply chain through the direct application developed (or developing) technology. They include:

1. Electrification
2. Alternative fuels
3. Clean Trucks Program
4. Auxiliary Power Units (APUs)
5. Smaller size, energy efficient delivery vehicles
6. Cargo bikes

The *Technologies* category typically rests on the private logistics operators to adopt/implement in order to achieve efficiencies, which can occur through either regulatory policies or incentive programs adopted by the City. For example, introducing charging infrastructure programs, upgrading their City fleets, and supporting state legislation -including testing/piloting of new technologies on public roads. Much of the effort by the industry to date has focused on testing and assisting original equipment manufacturers (OEMs) on commercialization and deployment, as well as assessing fueling or recharging infrastructure needs.

### *Electrification*

At the end of 2019, there were approximately 2,000 electric trucks operating on U.S. roads, and that number is expected to grow to over 54,000 by 2025<sup>16</sup>. Industry practices currently include equipment retrofits and/or accelerated replacement. In recent years, California's regulatory requirements (see CARB's [Advanced Clean Trucks](#) regulation) and incentive programs have driven

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<sup>16</sup> [woodmac.com/reports/power-markets-electric-heavy-duty-trucks-and-charging-infrastructure-a-grid-edge-case-study](https://www.woodmac.com/reports/power-markets-electric-heavy-duty-trucks-and-charging-infrastructure-a-grid-edge-case-study)

investment into new zero-emission technologies, most notably all-electric and hydrogen fuel cell. With the advent of fast-charging and the design of new types of vehicles by major OEMs, the potential for commercialization and the ensuing conversion of heavy-duty truck fleets is becoming more of a reality in the near-term. This applies to charging infrastructure as well. For example, In California, the major public utilities providers have been engaged in assessing future demand, identifying deficiencies in the electricity grid, and developing future improvements to meet anticipated demand. In early 2019, Penske Truck Leasing opened the nation's first Direct Current (DC) fast-charging stations (14 total, with 6 more planned) at four locations in Southern California designed specifically for heavy-duty commercial electric vehicles. Utilizing 50-150 kW chargers, the stations can fully charge an all-electric class 8 tractor in less than half a shift (or 7 hours, assuming a maximum daily 14-hour shift).

### *Companies Electrifying Their Fleets*

Companies like Tesla, Volvo, BYD and Freightliner, currently have fully-electric heavy-duty trucks in limited production. PepsiCo announced in October 2019 that 15 Tesla Semi electric trucks will replace all of the existing diesel-powered freight trucks at its Modesto, California manufacturing site. The first two battery electric eCascadia tractors from Freightliner were shown to have a range of 250 miles on a full charge, which is adequate for many local and intercity trips. One test driver of the Tesla Semi electric truck that transported an almost full load of 75,000 pounds said that the vehicle was meeting or even "exceeding" range expectations

### *Alternative Fuels*

On the testing and implementation front, the Ports of Long Beach and Los Angeles have been able to influence the conversion of diesel trucks to cleaner diesel and natural gas trucks serving the ports through tariffs that set requirements for terminal operators who lease from the ports. The two ports have also been influential in advancing zero-emission truck technologies (electric and hydrogen fuel cell) through their Technology Advancement Program (TAP) that provides funding in partnership with CARB for pilot projects. In support of both natural gas and hydrogen fuel cell deployments, the ports have also been investing in the fueling infrastructure. There are three critical factors for industry when deciding to invest in these new technologies: 1) cost, 2) reliability and travel range, and 3) fueling infrastructure. The fueling and recharging network is a critical piece that public agencies can affect.

### *Clean Trucks Program*

On the testing and implementation front, the Ports of Long Beach and Los Angeles have been able to influence the conversion of older diesel trucks serving the ports to newer, less polluting engines through tariffs that set requirements for terminal operators who lease from the ports. Additionally, what made the Clean Trucks Program sustainable was the partnerships and collaborations established prior to its inception, which enabled wide-scale support for the program – especially from private logistics operators and trucking companies. Finally, the surrounding communities of the



*Launched in 2008, the Port of Long Beach's ground-breaking Clean Trucks Program, which bars older, polluting diesel trucks from entering the port, led to a **90% reduction in truck-related emissions**. Source: [Port of Long Beach](#)*

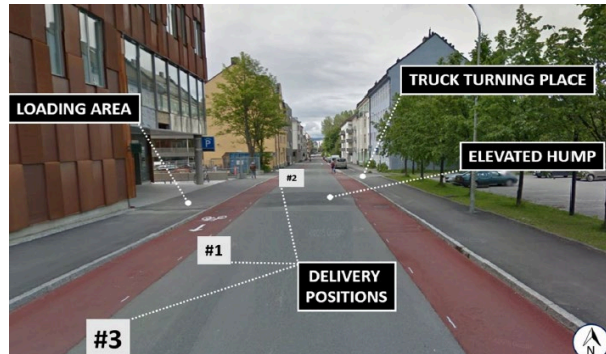
Clean Trucks Program also experienced improvements in air quality given their proximity to the port harbor facilities and local freeways. One relevant effort by the state of Oregon where the Clean Trucks Program could be applicable includes the *2050 Statewide Transportation Strategy (STS)*, a multi-agency transportation GHG reduction roadmap, with key objectives to support the use of cleaner vehicles and fuels. With respect to freight, one action of the program includes a truck alternative fuels study -which could be utilized to consider the feasibility of a Clean Trucks Program.

### *Auxiliary Power Units (APUs)*

Phase 2 of the joint EPA and United States Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA) [Heavy-Duty Greenhouse Gas \(HDGHG\) rule](#) sets the rules for original equipment manufacturers with respect to idle reduction requirements. This rule requires idle reduction technology, such as Auxiliary Power Units (APUs) for model year 2021 new Class 7 and 8 trucks with sleeper cabs. As assumed in the latest EPA Motor Vehicle Emissions Simulator ([MOVES 3](#)), the use of APUs for extended idling is projected to reach 40 percent by 2021, 50 percent by 2024, and 55 percent by 2027. What types of incentive programs (or regulation) can cities develop to encourage truck owners/operators to upgrade their fleets, and at a faster pace? For example, a jurisdiction could restrict truck access to public facilities, including parking lots, to vehicles equipped with APUs only. Another option would be to work with the state legislature and to allow for reduced vehicle registration fees and operating licenses to trucks equipped with APUs. It is important to note that there are two main types of APUs: diesel-powered APUs and battery-electric APUs. Therefore, to ensure the maximum GHG reduction benefits, battery-electric APUs should be encouraged and diesel-powered APUs should be discouraged.

### *Energy Efficient, Smaller, and More Maneuverable High-Visibility Trucks*

Smaller, lighter, and more fuel-efficient delivery trucks/vans with lower profiles and fewer driver blind spots significantly improve safety while also reducing emissions. Common in many European cities where small roadways cannot accommodate large trucks, companies like UPS, FedEx and DHL have been using smaller delivery vehicles, many of which are natural gas or electric



vehicles. In the U.S., most streets have been designed to accommodate all vehicle modes from automobiles to large trucks. These wider corridors often promote higher speeds, larger vehicles, and longer crossing times for pedestrians. As cities begin to rethink multimodal accessibility and mobility, delivery companies are moving towards near-zero and zero-emission, right-sized delivery vehicles. With respect to road safety implications, evaluations in Trondheim, Norway (right) revealed collisions between cyclists and trucks occurred mainly due to blind spots during turning maneuvers<sup>17</sup>. The high-profile of heavy-duty trucks and low profiles of bicycles prevent the truck drivers from being able to see the bicyclists. Designing highly visible bikeways, creating buffers and bike boxes can help, but the use of smaller and more maneuverable trucks significantly improve safety, while cutting emissions. One step that cities could take to encourage the use of smaller size trucks include enhancing their street design guide for freight movement in the urban core to include narrower street widths (such as curb extensions or road diets); such a strategy would discourage larger size trucks and create an environment where operators would have to switch to smaller vehicles to remain competitive.

### *Cargo Bikes*

Maneuvering and parking large trucks on congested, narrow city streets can be hazardous for drivers, cyclists, and pedestrians. Non-motorized or electric-assisted cargo bicycles have been gaining popularity in North American and European cities as a last-mile delivery solution. Small-sized goods are typically consolidated at an Urban Consolidation Center (UCC) or vicinity loading zone and transported to the final market destination. B-Line is an example of this type of service operating in city of Portland.<sup>18</sup> B-Line “at the Redd” is a UCC that serves regional producers and local businesses. Part of the company’s mission is to help reduce congestion and GHG emissions by developing more local, green-collar jobs. Cargo bikes offer certain advantages over small delivery vans and light trucks making short trips such as:

<sup>17</sup>Pitera et. al. 2017.

<sup>18</sup> B-Line, a local cargo delivery bike company, accessed on 2/17/2021 at: <https://b-linepdx.com/>

Reduced emissions and noise levels, on routes that are a feasible alternative for cargo bikes – such as where they are permitted to operate on public roads.

Increased route flexibility and door-to-door service, since they can utilize both vehicle and bicycle infrastructure -assuming the latter is permitted by the City for human-powered cargo bikes.

Improved road safety due to greater compatibility with pedestrians and cyclists, assuming cargo bikes travel at appropriate speeds.

For shorter trips, there is potential for faster delivery times than traditional trucks in city centers where congested roadways increase travel time/delay for trucks.

Non-motorized deliveries are more effective in neighborhoods with high urban density and suitable bicycle and pedestrian infrastructure. Otherwise, they are not viable in less dense areas where average trip distances increase substantially, or where bicycle and pedestrian facilities are not provided -which could put the safety of the cargo bike rider at risk when mixing with vehicular traffic.

A single electric cargo bike  
could save -

13 tons per year  
in CO<sub>2</sub> emissions

(Conway, 2014)

Companies like DHL, UPS and FedEx are just starting to implement delivery tricycles in North American and European cities (right). Places where traffic congestion in the urban core is prevalent, such as Seattle, Downtown Pittsburgh, and New York City, are allowing these companies to operate their cargo bikes on roads -including even offering free parking as an incentive. Emerging cities like Addis Ababa and Beijing have traditionally used non-motorized hand-carts, bikes, and animal-drawn carts to provide cheap, door-to-door delivery services where poor road, traffic and parking conditions have prohibited the use of large trucks.



Image source: Byron, Bike Hugger Magazine

## 1.2 Demand Management

The public sector has at its disposal various tools and techniques to encourage efficient truck operations on public roadways. By using either incentive programs (the “carrot”) or regulatory policies (the “stick”), public agencies can help implement the clean transportation vision they so desire by adopting demand management best practices. These include:

1. Truck Parking Management
2. Idle-Reduction Strategies
3. Off-Hour Deliveries

### *Truck Parking Management & Idle-Reduction Strategies*

Most heavy trucks need to park for long-term periods, especially on long-haul trips, and the federally mandated 14-hour rule. When parking overnight on public roadways/parking lots, or “hoteling,” trucks need to keep their engines idling in order to maintain power in the cabin to keep the electrical system on, including heating. However, these idling activities contribute to increased air emissions, including GHGs. The Utah Inland Port Authority recently applied for CMAQ funding for a new (publicly owned and operated) plug-in, truck parking facility in the inland port. The facility would include charging infrastructure for trucks to plug-in, provide power, and help avoid overnight idling on neighboring streets. Emissions generated from trucks idling to heat and cool the trucks as drivers take federally-mandated breaks can significantly contribute to poor air quality and GHGs in the region.

As consumers become more accustomed to fast, convenient home-delivery of goods, the growth in e-commerce and related freight activity is anticipated to increase, which will in turn, exacerbate the truck parking and overnight idling issues that most regions are already experiencing today. Some of the more recent increases are directly related to consumer demand of e-commerce goods due to COVID-19. For example, one recent study presented at the 100<sup>th</sup> Transportation Research Board annual meeting in January, 2021 by Cara Wang showed that while person trips to/from stores have decreased during COVID-19 across the United States, there has been a significant increase in vehicle trips for Courier Network Services (CNS).

Lastly, improvements in the ability of trucks to find parking, particularly in dense areas, as this avoids trucks circling/cruising around to find a spot, or parking in a travel lane and causing congestion/safety conflict, could potentially yield significant GHG reduction benefits. This could be achieved through a detailed truck parking needs assessment that considers total delivery demand by location and compares it to curbside delivery zones and off-street truck parking availability. The implementation of a real-time delivery zone reservation system may provide a long-term solution



### Off-Hour Deliveries

Off-hour deliveries (OHDs) between 7:00 p.m. and 6:00 a.m. are an effective tool for managing freight demand and reducing emissions due to improved traffic flow conditions, along with reducing conflict between commercial vehicles, general traffic, and vulnerable road users<sup>19</sup>. It also has the potential to reduce operating expenses for businesses. Implementing OHD pilots requires local businesses to change receiving behaviors. OHD programs have been implemented in New York City and Los Angeles, as well as in parts of South America and Europe<sup>20</sup>.



*New York City OHD Pilot*

- Delivery times reduced by **75%**
- Carriers reported less stress and savings on fuel costs
- Potential savings of **\$200 million** per year for carriers, shippers, and receivers
- Late-night noise has potential to draw negative perceptions

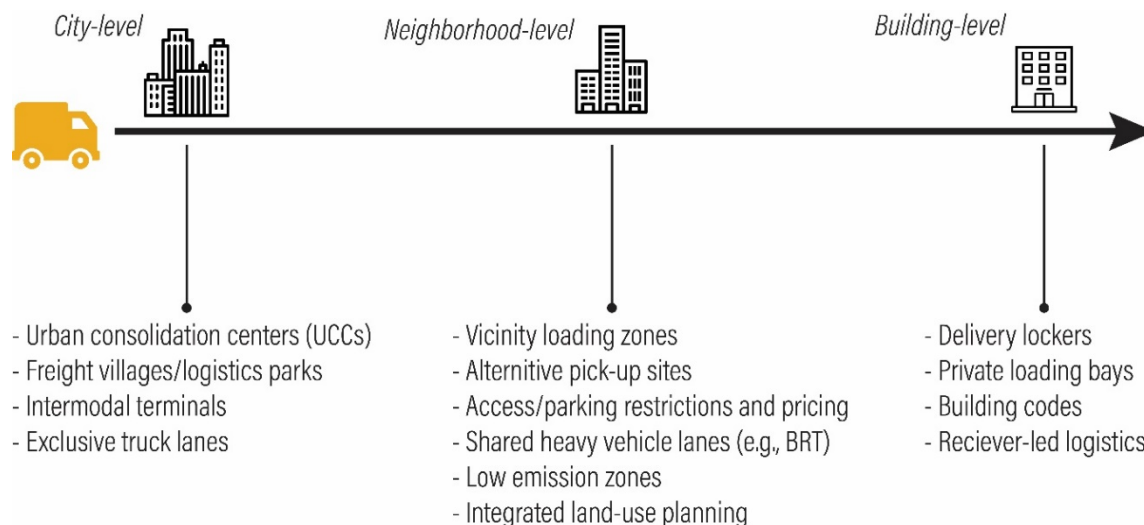
## 1.3 Other Green Policies

The third and final bucket of sustainable supply chain strategies best practices covers other green policies that are available for cities, agencies, and private logistic companies. This category covers a wide spectrum of green land use and transportation policies not covered in the previous two categories, from urban consolidation centers to low-emission zones, to delivery lockers/parcels and curb management. As shown below in **Figure 1** below, consolidating freight loads at strategic geographic stages has potentially tremendous impacts on reducing the number of trucks that enter a city, the distances they travel, and time spent dwelling.

<sup>19</sup>Off-Hour Deliveries Program, New York City DOT. <https://ohdnyc.com/sites/default/files/business-admin-files/Home/ohd-final-report.pdf> & <https://ohdnyc.com/benefits>

<sup>20</sup><https://www1.nyc.gov/html/dot/downloads/pdf/truck-deliveries-11189.pdf>

**Figure 15 Examples of Sustainable Supply Chain Strategies Best Practices for Reducing GHG Emissions at Different Stages in the Urban Area**



*Image source: World Resources Institute, adapted from José Holguín-Veras, 2015 and GIZ, 2013.*

### Low-Emission Zones

The creation and adoption of zero-emission goals can be an effective instrument for setting an agenda and catalyzing clean mobility, including Net-Zero Emission initiatives, and [climate emergency declarations](#), such as the City of Flagstaff, Arizona. Such declarations can have a resonating effect on the surrounding community, and can also help move climate action goals to the top of the governing body's agenda (i.e., funding). It can also notify key stakeholders and private companies who wish continue doing business in the region that they must be held accountable for their carbon footprint. Low-Emission Zones are another proven tool available to cities that can directly influence the vehicle fleet composition on public roadways:

**Low-Emission Zone (LEZ)** in London for example – clean air was a top priority/agenda for the Mayor and public, because of the growing body of evidence that linked poor air quality with negative health outcomes; especially for children

The concept puts immediate pressure on high-polluting, heavy trucks to upgrade their fleets more quickly (in addition to passenger vehicles). This also provides additional revenue sources for the public transportation agency. However, it can also be a burden on industry and result in negative economic impacts to certain geographic areas if it is not strategically implemented. In addition, caution must be taken when designing the cordon area (including its size) so as to avoid vehicles attempting to bypass the LEZ by cutting through neighborhoods or taking longer, alternative routes (i.e., increasing VMT).

There are currently around 200 LEZs around the globe, mostly concentrated in Europe, with reported improvements in local air quality. For example, in London, between 2017-2020, roadside measurements within the LEZ showed an estimated reduction in NO<sub>2</sub> emissions of



approximately 44%<sup>21</sup>. The City of Santa Monica, California recently became the first City in the United States to pilot a Zero Emissions Delivery Zone (ZEDZ)<sup>22</sup>. Although it is only a voluntary program, it is a good example of how to successfully build sustainable partnerships between public, private, and community stakeholders.

### *Land Use*

Public agencies have the opportunity to influence smart growth practices through effective and efficient land use policies, including:

Strategic placement of urban consolidation/distribution centers, such as fulfillment centers and last-mile delivery facilities, to enable travel efficient movement of cargo.

Building codes should require provisions for delivery lockers that reduce daily number of deliveries and delivery dwell-times. For example, in Seattle, WA, introducing a delivery locker for a large mixed-use development reduced delivery vehicle dwell-times by 78%<sup>23</sup>.

Allocating space for electrified truck parking facilities to reduce the need for extended idling, especially on-street, which can be a potential safety hazard.

Incorporating auxiliary plug-ins at loading docks into the design standards of warehouses.

### *Curbside loading/unloading operations*

Most buildings and businesses accept deliveries daily—some receive over 200 deliveries a day. Although some businesses offer off-street loading bays, most receive their goods from the curb. Parked and double-parked trucks are a major contributor to urban congestion and the obstruction of pedestrian infrastructure, along with truck and delivery vans idling and emitting pollutants and GHGs. One recent study from the Urban Freight Lab (UFL) at the University of Washington by Dr. Anne Goodchild<sup>24</sup> found that there is insufficient data to help assess the effectiveness of restricting vehicle dwell time -a common state of the practice to manage commercial vehicle behavior. As a result, this makes it challenging for policymakers to account for the complexity of commercial vehicle parking behavior. The study went on to identify key factors that influence dwell time, including types of packages being delivered, whether a front office/security personnel is present, and number of deliveries made to the occupants in the same building. The Institute of Transportation Engineers published a technical resource guide that could also help the city efficiently manage the curb for loading/unloading operations: [Curbside Management Resources](#). The guide considers

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<sup>21</sup> [https://www.london.gov.uk/sites/default/files/air\\_quality\\_in\\_london\\_2016-2020\\_october2020final.pdf](https://www.london.gov.uk/sites/default/files/air_quality_in_london_2016-2020_october2020final.pdf)

<sup>22</sup> <https://lincubator.org/zedz/>

<sup>23</sup> University of Washington, 2018

<sup>24</sup> Kim, H., Goodchild, A., & Boyle, N.L. "Empirical analysis of commercial vehicle dwell times around freight-attracting urban buildings in downtown Seattle." *Journal of Transportation Research Part A: Policy and Practice*. 147 (2021) 320-338.

regulatory, operations, and technology strategies to optimize curb access and usage, and features case studies for quick reference.

### *Urban Consolidation Centers (UCCs)*

Consolidating freight loads at strategic geographic stages has potentially tremendous impacts on reducing the number of trucks that enter a city, the distances they travel, and time spent dwelling. Fehr & Peers conducted a study on 2020 on truck VMT for different fulfillment centers in the United States, both in urban and rural areas. The study found that average trip lengths were significantly shorter for fulfillment centers located in urban areas, versus rural areas, and that having a concentrated network of fulfillment centers played a role in reducing the average trip length<sup>25</sup>. One trend that is emerging is that private, online retail companies such as Amazon, Walmart, and Staples, are moving closer to the urban core (i.e. customers and for-hire drivers) to enable same-day delivery options to remain cost and time-competitive.

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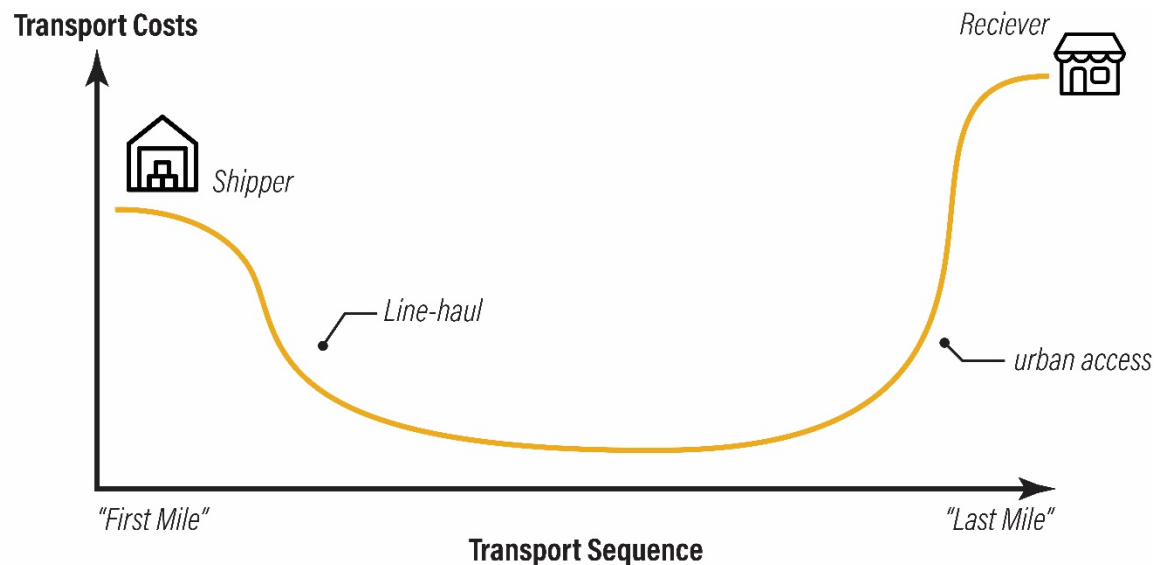
<sup>25</sup> Contreras, S. et al. "Travel Efficiency of Fulfillment Centers." Presented at the 100<sup>th</sup> Transportation Research Board Annual Meeting. Washington, DC. January, 2021.

# Part 2 – Methods for Estimating the Benefits and Costs of Selected GHG Reduction Strategies

*"If you get free deliveries, you have the illusion that this is easy."* - José Holguín-Veras, 2017

The GHG reduction strategies previously described in Part 1 provide a menu of options for the City to consider. The list of best practices, though non-exhaustive, were selected based on their applicability. While each of the selected GHG reduction strategies has an associated benefit, including emissions reduction and efficiencies, there are costs to consider. For example, the transportation of goods becomes costlier as it approaches its urban destination, or the "last-mile." An effective 'last-mile' solution should reduce costs for both shippers and receivers while mitigating urban freight's negative externalities, including congestion, air pollution, greenhouse gases, and collisions. The bell-shaped, concave-upward cost curve shown in **Figure 2** should be factored into the benefit-cost ratio when considering GHG reduction strategies. The first mile begins at the shipper's origin/warehouse center, where it is then transferred via line-haul (rail/long-haul truck) and shipped to a distribution center where it is sorted and transferred to its last mile delivery vehicle (smaller size vans, and medium size trucks). The line-haul costs are relatively low compared to the last mile given the economies of scale, and the reliable movement along rail/rural highways that are typically not as congested as the last mile/urban areas.

**Figure 16 First and Last Mile Unit Cost Structure (Rodrigue, 2020)**



*Image source: World Resources Institute*

The 'last-mile' refers to the final phase of the transportation chain where the goods enter the city and are typically delivered to the hands of the final recipient. These activities traditionally cause additional congestion (including emissions) and obstruct pedestrian infrastructure as vehicle operators unload/load deliveries on the curb. There is thus a congestion factor that is salient for the last mile, which brings forward the concept of "city logistics" that seeks to mitigate the complexities of moving freight within metropolitan areas.

The methods for estimating and evaluating the benefits and costs of the identified best practices are organized into the following three categories: (1) Performance Measures, (2) Monitoring & Evaluation, and (3) Lessons Learned.

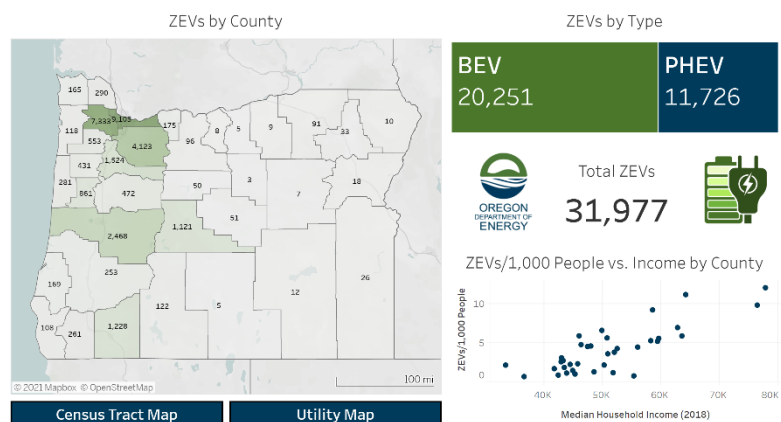
## 2.1 Performance Measures

This section provides an overview of performance measures utilized by various agencies. The performance measures should be tied to a specific goal or target, in order to measure the implementation measures and gauge whether the agency is meeting their goal. The performance measures, or metrics, should be measurable, documented, and shared with the public as a way of being transparent with the community being served. Some good examples of performance measures may include:

1. Truck VMT metrics
  - a. Percent of truck fleet that is electric (EV adoption dashboards)
  - b. Percent of truck fleet that is alternative fuel (non-diesel or gas)
  - c. Percent of truck fleet with battery-powered APUs
2. Total freight related GHGs
3. Number of cargo bikes in use

### *Example: ODOT EV Dashboard*

The [Electric Vehicle \(EV\) Dashboard](#) was developed to share information about Oregon electric vehicle adoption rates, the most popular EV models, charging information, and more. This type of tracking system provides a good platform for measuring performance of ODOT's EV adoption goals, as well as provides transparency for residents of the state, utility providers, and private companies looking to advance their business lines.



The EV dashboard displays Oregon's total number of electric vehicles by type, such as battery electric vehicles and plug-in hybrid electric vehicles, and by county location. A deeper dive through interactive maps shows EVs by electric utility and by census tract. One can even calculate specific savings by EV model and electricity costs. It was a collaborative effort by ODOT to create the dashboard, and included ODEQ Clean Fuels Program, Portland State, and federal agencies.

### *Truck VMT Metrics*

Big Data providers, such as StreetLight and Inrix, can provide tools and dashboards to help quantify truck VMT. SB 743 in California replaced LOS with VMT as the metric for assessing a project's transportation impact, but it did not cover freight related VMT. Fehr and Peers published a paper at the 100<sup>th</sup> annual meeting of the Transportation Research Board in Washington, DC, in January, 2021 which assessed various travel efficiency performance metrics of freight fulfillment centers in the United States. The paper utilized cell phone data from the StreetLight data platform to estimate the average trip lengths of the delivery vehicles serving these facilities. Overall, the smaller the truck VMT performance metric, the better, with respect to GHG emissions. Replacing heavy duty truck VMT with smaller, more maneuverable high-visibility trucks could potentially increase VMT.

Additionally, truck VMT metrics are provided by regional travel demand models, including horizon year forecasts. The Metro travel demand model includes heavy and medium truck volumes and trip lengths so truck VMT can be calculated for current and future forecast years. At this time it does not capture light duty trucks separately so truck VMT estimates from the model are likely underestimating total truck VMT.

### *Other Performance Measures*

Tracking the percentage of the truck fleet that are is with battery-powered APUs, along with the total number of cargo bikes in use. Both measures would enable the city to maintain open lines of communication with truck fleet operators and private businesses, especially if the frequency of reporting is conducted on a quarterly or semi-annual basis. City could then closely assess the trends in adoption/usage, and work directly with the entities to discuss partnerships and funding opportunities as they arise over time.

## **2.2 Monitoring and Evaluation**

This category includes various types of GHG monitoring and evaluation systems, as well as reporting schemas. Monitoring and evaluation is an important component of implementing GHG reduction strategies, in order to assess their effectiveness, and provides agencies with a sense of direction should certain measures need to be adjusted accordingly. In other words, to see what is and is not working. This requires a substantial amount of data collection and organization, as well as analyses and reporting. The most effective approaches tend to invest in data platforms, as well as visual communications in order to tell a story with the data. For example, story maps and infographics for the non-technical stakeholders. Moreover, many companies now employ a sustainability coordinator/manager to assist the logistics and accounting staff in helping to improve productivity and efficiency, and thus reduce overall operating costs.

### *GHG Inventories*

Oregon Law requires that the Oregon Global Warming Commission deliver a report to the Legislature every two years. Generally, the Commission uses the reports as a platform to educate and inform legislators and the public about current critical climate facts, policies, and strategies. Such GHG inventory reporting has enabled the commission to conclude that in 2020, the state was not on track to meet their emission reduction goals.

### *GHG Reporting Schemas*

SCAG regional model provides information to quantify and monitor GHGs. The *2020 California Statewide freight Mobility Plan* (CFMP 2020), a multi-agency transportation GHG reduction roadmap, lists key objectives and corresponding performance measures to support the use of cleaner vehicles and fuels, as well as consider GHG emissions in decision-making.

## **2.3 Costs and Lessons Learned**

A context sensitive approach is important when evaluating GHG reduction best practices, as well as knowing the actual costs. Some agencies, recommends placing an emphasis on early results, for general public awareness and stakeholder collaboration. The ability to learn from others, both positive and negative experiences, could help save time and resources when considering GHG reduction strategies.

### *Example: ODOT's GHG Reduction Toolkit*

The toolkit presents several on-the-ground case studies and emphasizes their cost effectiveness: The strategies (such as the Westside Transportation Alliance & Nike) have a documented direct cost effectiveness of less than \$200 per ton of CO<sub>2</sub> reduced. This toolkit can help the City since it provides real world information that can be easily translated and reported out to other government agencies, private stakeholders, and the community at large. It places a dollar value on CO<sub>2</sub>, which the general public can relate to, and is already a proven mechanism utilized at the state level.

### *Overcoming Clean Vehicle Purchasing Barriers*

Overall, there are three main barriers to purchasing clean vehicle technologies: (1) capital cost, (2) fueling availability, and (3) operational constraints (number of miles that can be traveled on one tank of fuel or one charge). At the time of this report, the estimated purchase price of a new diesel heavy-duty Class 8 truck is approximately \$130,000, whereas a comparable battery-electric truck starts at \$450,000 and a comparable hydrogen-fuel cell truck starts at \$650,000. Not only are they 3-4 times more expensive than diesel trucks, but the travel range for electric is less, the unloaded weights of both electric and hydrogen fuel cell trucks are greater (reduces cargo carrying capacity), and the fueling infrastructure is not yet developed to support the charging/refueling of these new technologies. Some of the lessons learned from other agencies when overcoming the high cost and purchasing barriers of clean vehicles and charging infrastructure include:

- Cost sharing mechanisms between public and private sectors.

- Implementing a tax increment for new land development projects, such as the Utah Inland Port Authority, and reinvesting those dollars in electrified truck parking, charging, and refueling infrastructure
- Instead of purchasing brand new vehicles, look at acquiring previously owned vehicles (such as the case in Mexico City) or leasing the vehicles directly from the manufacturer.
- Leverage new funding pathways via local/state public health initiatives, such as the case in California with AB 617 (Community Air Protection Program, or CAPP) and SB 856, which provides supplemental funding for zero-emissions charging infrastructure for trucks. From 2017-2019, AQMD received nearly \$300 million for these programs. The Clean Truck Voucher Incentive Program (VIP) is another good example.

## Conclusions

The purpose of this white paper was to provide a concise summary of freight GHG reduction best practices. There are multiple strategies to select from, including technologies, demand management, and other green policies, based on the local context and level of public and private feasibility. It is also important to consider an effective means for estimating the benefits and costs of each strategy, establishing a transparent monitoring and evaluation system with appropriate performance metrics, and identifying sustainable funding mechanisms to support the efforts in the long run. Ultimately, the most effective sustainability freight transport strategies are likely to be those that meet economic, environmental, and social needs simultaneously.

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[Energy 101 Section](#) – Where Do Our Transportation Fuels Come From

[Resource and Technology Reviews](#) – Electric Vehicle Chargers, Electric Vehicles, Hydrogen Fuel Cell Vehicles

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# Appendix F:

## TDM Strategies

Transportation Demand Management Strategies

Strategy	Description	VMT Impact	Expected VMT Reduction	Estimated Total Cost <sup>26</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>27</sup>
Adopted Plans							
Provide Pedestrian Network Improvements	Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT.	Encourages people to walk within and to a Project.	CAPCOA: <sup>28</sup> 0%-2% Adjusted: <sup>29</sup> 0.5%-5.7%	High <sup>30</sup>	High	High	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Provide Traffic Calming Measures	Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements.	Encourages people to walk or bicycle, especially for shorter trips.	CAPCOA: 0.25%-1% Adjusted: 0%-1.7%	Low	Low	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Agency Coordination							
Expand Transit Network	Expanding the local transit network by adding or modifying existing transit service to enhance the service near the project site.	Reduction in vehicle trips due to increased transit service hours or coverage. Low end of reduction is typical of project-level implementation.	CAPCOA: 0.1%-8.2% Adjusted: 0.1%-10.5%	High	High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Provide a Bus Rapid Transit System	Providing a Bus Rapid Transit (BRT) system with design features for high quality and cost-effective transit service.	Encourages people to use public transit and therefore reduce VMT.	CAPCOA: 0.02%-3.2%	High	High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Increase Transit Service Frequency/Speed	Reducing transit-passenger travel time through more reduced headways and increased speed and reliability.	Reduction in vehicle trips due to increased transit service hours or coverage. Low end of reduction is typical of project-level implementation.	CAPCOA: 0.02%-2.5% Adjusted: 0.3%-6.3%	Medium/High <sup>31</sup>	Medium/High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>

<sup>26</sup> Cost: Low if cost is thousands; Medium if cost is hundreds of thousands; High if cost is millions.

<sup>27</sup> means the strategy is applicable to the VMT metrics; means the strategy is not applicable to the VMT metrics.

<sup>28</sup> Expected VMT reduction based on: *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), 2010.

<sup>29</sup> Adjusted expected VMT reduction based on new research conducted since publication of CAPCOA guidance in 2010.

<sup>30</sup> For Pedestrian Network Improvements, other improvements associated to rebuilding and providing sidewalks - such as lighting, landscape - may add up to the cost.

<sup>31</sup> Low/Medium cost, or Medium/High cost would depend on the program scale.

Strategy	Description	VMT Impact	Expected VMT Reduction	Estimated Total Cost <sup>26</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>27</sup>
<b>Programs and Policies</b>							
Implement Commute Trip Reduction Programs - Voluntary	Implementing a voluntary Commute Trip Reduction (CTR) program with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. This strategy does not require monitoring, reporting, or established performance standards.	Encourages alternatives to commuting in single-occupancy vehicles.	CAPCOA: 1%-6.2% Adjusted: 1%-6.0%	Medium	Medium	Low	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>
Implement Commute Trip Reduction Programs – Required Implementation/ Monitoring	Implementing a Commute Trip Reduction (CTR) ordinance. The intent of the ordinance will be to reduce drive-alone travel mode share and encourage alternative modes of travel. The critical components of this strategy are: <ul style="list-style-type: none"><li>• Established performance standards (e.g., trip reduction requirements)</li><li>• Required implementation</li><li>• Regular monitoring and reporting</li></ul>	Commute VMT reduction due to employer- based mode shift program with required monitoring and reporting.	CAPCOA: 4.2%-21.0%	Medium	Medium	Low	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>
Implement Subsidized or Discounted Transit Program	Providing subsidized/discounted daily or monthly public transit passes or providing free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.	1] Reduction in vehicle trips in response to reduced cost of transit use, assuming that 10-50% of new bus trips replace vehicle trips. 2] Reduction in commute trip VMT due to employee benefits that include transit. 3] Reduction in all vehicle trips due to reduced transit fares system-wide, assuming 25% of new transit trips would have been vehicle trips.	CAPCOA: 0.3%-20% Adjusted: 1] 0.3%-14% 2] 0-16% 3] 0.1%-6.9%	Low	Low	Low	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>
Provide Employer-Sponsored Vanpool/Shuttle	Implementing an employer-sponsored vanpool or shuttle. A vanpool will usually service employees’ commute to work while a shuttle will service nearby transit stations and surrounding commercial centers.	1] Reduction in commute vehicle trips due to implementing employer-sponsored vanpool and shuttle programs. 2] Reduction in commute vehicle trips due to vanpool incentive programs. 3] Reduction in commute vehicle trips due to employer shuttle programs.	CAPCOA: 0.3%-3.4% Adjusted: 1] 0.5%-5.0% 2] 0.3%-7.4% 3] 1.4%-6.8%	High on the Provider side.	High if Public Provider. Low if Private provider.	Low if Public Provider. High if Private provider.	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>
Encourage telecommuting and Alternative Work Schedules	Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered start times, flexible schedules, or compressed work weeks.	Reduces the number of days employees need to work and/or shifts commute time outside of peak periods to avoid adding congestion.	CAPCOA: 0.07%-5.5% Adjusted: 0.2%-4.5%	Low IF less than 0.25% of current employees in Santa Fe Springs participate. Medium IF 0.25%-2.5% employees participate. High if >2.5% employees participate.	Depending on the program eligibility	Depending on the program eligibility	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>

Strategy	Description	VTM Impact	Expected VMT Reduction	Estimated Total Cost <sup>26</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>27</sup>
<b>Parking Policy/Pricing</b>							
Limit Parking Supply	Projects can change parking requirements and types of supply within the Project site to encourage "smart growth" development and alternative transportation choices by project residents and employees.	Encourages alternatives to the use of single-occupancy vehicles.	CAPCOA: 5%-12.5% Adjusted: 5%-30% <sup>32</sup>	Low	Low	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Unbundle Parking Costs from Property Cost	Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost.	Reduction in VMT, primarily for residential uses, based on range of elasticities for vehicle ownership in response to increased residential parking fees. Does not account for self-selection. Only applies if the city does not require parking minimums and if on-street parking is priced and managed (i.e., residential parking permit districts).	CAPCOA: 2.6%-13% Adjusted: 2%-12%	Low	Low	Low/Medium depending on specific parking policy.	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
<b>Supportive Infrastructure</b>							
Increase Transit Accessibility	Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT.	1] VMT reduction when transit station is provided within 1/2 mile of development (compared to VMT for sites located outside 1/2 mile radius of transit). 2] Reduction in vehicle trips due to implementing Transit Oriented Development (TOD).	CAPCOA: 0.5%-24.6% <sup>14</sup> Adjusted: 0%-5%.	Low	Low	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
							<ul style="list-style-type: none"><li></li></ul>
Provide Ride-Sharing Programs	Promoting ride-sharing programs through a multi-faceted approach such as: <ul style="list-style-type: none"><li>Designating a certain percentage of parking spaces for ride sharing vehicles;</li><li>Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles; and</li><li>Providing an app or website for coordinating rides.</li></ul>	Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT.	CAPCOA: 1%-15% Adjusted: 2.5%-8.3%	High on the Provider side.	High	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>
Implement Commute Trip Reduction Marketing	Implementing marketing strategies to reduce commute trips through new employee orientation of trip reduction and alternative mode options, event promotions and publications.	1] Vehicle trips reduction due to CTR marketing. 2] Reduction in VMT from institutional trips due to targeted behavioral intervention programs.	CAPCOA: 0.8-4.0% Adjusted: 1] 0.9%-26% 2] 1%-6%	Low	Low	Low	<ul style="list-style-type: none"><li>Total VMT per Service Population</li><li>Home-Based VMT per Capita</li><li>Home-Based Work VMT per Employee</li></ul>

<sup>32</sup> Newer research shows that VMT reductions for residential land use could be up to 30% in suburban locations. VMT reduction in the City of Santa Fe Springs would depend on local factors such as land use, built environment, and parking policies.

Strategy	Description	VMT Impact	Expected VMT Reduction	Estimated Total Cost <sup>26</sup>	Estimated Cost to the City	Estimated Cost to Developers	Applicability to VMT Metrics <sup>27</sup>
Implement Car-Sharing Program	Implementing car- sharing programs allows people to have on-demand access to a shared fleet of vehicles on an as-needed basis, as a supplement to trips made by non-SOV modes. Transit station-based programs focus on providing the “last-mile” solution and link transit with commuters’ final destinations. Residential-based programs work to substitute entire household based trips. Employer-based programs provide a means for business/day trips for alternative mode commuters and provide a guaranteed ride home option. The reduction shown here assumes a 1%-5% penetration rate.	Reduces need to own a vehicle or the number of household vehicles.	CAPCOA: 0.4%-0.7% Adjusted: 0.3%-1.6%	High on the provider side.	Low	High	<ul style="list-style-type: none"><li>• Total VMT per Service Population</li><li>• Home-Based VMT per Capita</li><li>• Home-Based Work VMT per Employee</li></ul>

