

Planning Commission

Charter Township of Plymouth, MI

Thursday, June 1, 2023

Special Meeting of the Planning Commission
7:00 PM · Township Municipal Offices

AGENDA

Meeting called to order at _____ PM

Remote Viewing
www.bit.ly/PlymouthLiveStreams
Sign up for Notifications
www.plymouthtp.org/enotify
Current Project Plans
www.plymouthtp.org/government/departments/community_development/current_projects.php



1. Roll Call:

- | | |
|------------------------------------------|-------------------|
| _____ Dennis Cebulski, Chairperson | _____ Tim Boyd |
| _____ Kendra Barberena, Vice-Chairperson | _____ James Berry |
| _____ Gail Grieger, Secretary | _____ John Itsell |
| _____ Bob Doroshewitz, Trustee | |

2. Approval of the Agenda: June 1, 2023

Moved by: _____ Supported by: _____
Action Taken: _____

3. Approval of the Minutes: March 15, 2023

Moved by: _____ Supported by: _____
Action Taken: _____

4. Approval of the Minutes: April 19, 2023

Moved by: _____ Supported by: _____
Action Taken: _____

5. Approval of the Minutes: May 3, 2023

Moved by: _____ Supported by: _____
Action Taken: _____

6. Approval of the Minutes: May 17, 2023

Moved by: _____ Supported by: _____
Action Taken: _____

7. Public Comment (for non-agenda items – maximum of three minutes per individual)

8. Public Hearing(s): None

9. New Business: None

10. Unfinished Business:

A. PC# 2478	Northville Downs of Plymouth – PUD Development Plan
Applicant:	PEA Group, on behalf of Northville Downs
Address:	Southwest corner of 5 Mile and Ridge Roads
Tax ID(s):	R-78-001-99-0001-704, R-78-001-01-0001-000, R-78-001-01-0002-000, R-78-001-01-0003-000, R-78-001-01-0004-000, R-78-001-01-0005-000, R-78-001-01-0006-000, R-78-001-01-0007-000, and R-78-001-01-0008-000
Zoning:	IND, Industrial District
Action Requested:	-
Motion:	Moved by: Support by: Action Taken:
<i>Commissioner Discussion Notes:</i>	

11. Miscellaneous Business / Communication: None

12. Commissioner Comments

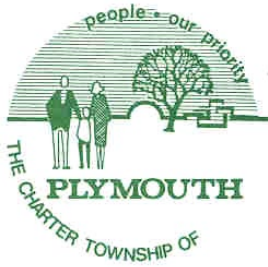
13. Adjournment: Meeting adjourned at _____ PM

Moved by: _____ Supported by: _____
Action Taken: _____

Next Meeting: June 21, 2023 at 7:00 PM

PLEASE TAKE NOTE: Plymouth Township will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at all Township meetings, to individuals with disabilities at the meetings/hearings upon two weeks’ notice to the Township by writing or calling the following: Human Resources, 9955 N. Haggerty Road, Plymouth, MI 48170; (734) 354-3202 TDD units: 1-800-649-3777 (MI Relay Services).

The public is invited and encouraged to attend all meetings of the Planning Commission.



Planning Commission

Charter Township of Plymouth, MI

Wednesday, March 15, 2023

Regular Meeting

Proposed Planning Commission Minutes

7:00 PM · Township Municipal Offices

Meeting called to order at 7:00 PM.

1. Roll Call:

- Commissioner Cebulski, Chair
- Commissioner Barberena, Vice Chair
- Commissioner Grieger, Secretary
- Commissioner Doroshewitz
- Commissioner Berry
- Commissioner Boyd
- Commissioner Itsell

Also Present: Laura Haw, Planner
Denisa Terrell, Recording Secretary

2. Approval of the Agenda: March 15, 2023

Moved by Commissioner Barberena, with support by Commissioner Boyd to approve the agenda as submitted.

All Ayes. Motion Passed.

3. Approval of the Minutes: January 18, 2023

Moved by Commissioner Barberena, with support by Commissioner Itsell to approve the minutes as submitted. Grieger abstained.

All Ayes. Motion Passed.

4. Public Comment: None.

5. Public Hearing(s):

A.	PC# 2463	Biggby Coffee – Special Land Use
	Applicant:	R&B Coffee House of Plymouth, LLC
	Address:	1311 Ann Arbor Road
	Tax ID(s):	#78-059-03-0039-300 and #78-059-03-0042-000
	Zoning:	ARC, Ann Arbor Road Corridor District
	Action Requested:	Planner Haw provided an overview of the proposed Biggby Coffee to be located at 1311 Ann Arbor Road as a drive-through restaurant/cafe. She indicated the special land use request aligns with the compliance criteria of Sec. 2.7 of the Zoning Ordinance. There were no deficiencies

noted from engineering or fire. Approval of the special land use was recommended, pending any information or recommendations presented during the public hearing.

The Public Hearing Opened at 7:09 PM. There were no comments.
The Public Hearing Closed at 7:10 PM.

Motion: Moved by: Commissioner Doroshewitz
Support by: Commissioner Berry
Action Taken: To approve PC# 2463, a Special Land Use for Biggby Coffee, contingent upon site plan approval, and based on the findings of fact and compliance with Section 2.7 of the Ordinance, as documented in the Planner’s report.

All Ayes. Motion Passed.

B. PC# 2466 Sarafund Automotive – Special Land Use

Applicant: Mohammad Essa
Address: 14760 Northville Road
Tax ID(s): # 78-017-03-0051-004 and #78-017-03-0051-007
Zoning: C-2, General Commercial District
Action Requested: Planner Haw provided details for the proposed Special Land Use of automobile sales and repair located at 14760 Northville Road and outlined the six standards for the Planning Commission to consider in evaluating such a use (Section 2.7). Ms. Haw then provided the recommendation to table the request to allow the applicant to resubmit and to address the conditions outlined in the Planner’s report.

The Public Hearing Opened at 7:27 PM.

Commissioner Grieger shared seven emails from community members that were received by the Township Planning Department in opposition to the special land use request. She summarized that the concerns that included noise, additional traffic, a decrease in property values, not being complimentary to current land uses, concerns about removing existing vegetation with no replacement, lighting, and the visual of broken-down vehicle parts and vehicles.

Members of the public then addressed the Commission at the meeting: Bret expressed opposition to the six-foot wall, noise pollution, light pollution, and traffic (including school bus traffic).

Andre expressed concern about an increase in crime.

A third member of the public also expressed concern over the use and mentioned that some mature trees were removed from the property and that the existing six-foot wall is not sufficient enough for screening.

The Public Hearing Closed at 7:33 PM.

Motion: Moved by: Commissioner Doroshewitz
Support by: Commissioner Itsell
Action Taken: To table PC# 2466 Sarafund Automotive for up to six months to address concerns presented by the Planning Commission.

All Ayes. Motion Passed.

C.	PC# 2467	14900 Beck Road – Special Land Use
	Applicant:	MRP Development Management, LLC
	Address:	14900 Beck Road
	Tax ID(s):	#78-010-99-0006-700
	Zoning:	IND, Industrial District
	Action Requested:	Planner Haw provided a summary for the proposed 3-story, self-storage facility and a covered recreation vehicle storage facility. The proposed outdoor covered recreation parking area triggers the request for special land use consideration. The area is a vegetated undeveloped site. Ms. Haw provided a recommendation to approve the special land use, contingent on addressing heritage tree removal with a landscape plan during the site plan review, installing a minimum 25-foot naturalized buffer around the stormwater basin, and that there will be no storage of parts, or abandoned vehicles on the property.
		The Public Hearing Opened at 8:09 PM. MaryAnn McClaren (Chair of the Township’s Environmental Leadership Commission) suggested solar panels on top of the recreation vehicle canopies.
		The Public Hearing Closed at 8:10 PM.
	Motion:	Moved by: Commissioner Barberena Support by: Commissioner Grieger Action Taken: To grant Special Land Use approval to PC# 2767 for the outdoor storage of recreation vehicles, contingent upon site plan approval, and based on the findings of fact and compliance with Section 2.7 of the Ordinance, as documented in the Planner’s report.
		All Ayes. Motion Passed.

D.	PC# 2470	Halyard Ridge Business Park – Special Land Use
	Applicant:	BCCG Construction (on behalf of Choctaw-Kaul Distribution)
	Address:	15000 Ridge Road
	Tax ID(s):	#78-006-99-0001-002
	Zoning:	IND, Industrial District
	Action Requested:	Planner Haw provided a summary of the request for Special Land Use at 15000 Ridge Road; the project includes a proposed outdoor storage lot for utility equipment. Ms. Haw provided recommendations for approval that included ensuring the storage height of equipment does not exceed eight-feet in height, provides for a paved, graded road from the street to the rear of the proposed project, and that it is specified that no generation or the storage of waste materials will take place on site.
		The Public Hearing Opened at 8:30 PM. There were no comments.
		The Public Hearing Closed at 8:31 p.m.
	Motion	Moved by: Commissioner Barberena Support by: Commissioner Boyd

Action Taken: To grant Special Land Use approval for PC# 2470 with conditions as noted within the planner's report including that the height of the stored materials is specified in plans and the storage height does not exceed eight-feet, that there are plans for a paved graded road from the street to the rear of the project, and that the site plans specify that no generation or storage of waste materials will be onsite, and contingent upon site plan approval, and based on the findings of fact and compliance with Section 2.7 of the Ordinance, as documented in the Planner's report.

All Ayes. Motion Passed.

6. New Business:

- A. PC# N/A Domino's – ARC Signage**
- Applicant: Domino's Pizza
Address: 1043 Ann Arbor Road
Tax ID(s): #78-059-03-0064-000
Zoning: ARC, Ann Arbor Road Corridor District
Action Requested: Ms. Haw provided details for the Domino's Pizza signage at 1043 Ann Arbor Road. She also indicated signage within the Ann Arbor Road Corridor above 16-inches in height must be presented to the Planning Commission and found acceptable.
- Motion: Moved by: Commissioner Barberena
Support by: Commission Itself
Action Taken: Approved the Domino's Pizza wall sign as presented, with the change of removing the white panel at the bottom of the ground sign, so that the background is just one solid blue color.
- All Ayes. Motion Passed.
- B. PC# 2465 Biggby Coffee – Site Plan**
- Applicant: R&B Coffee House of Plymouth, LLC
Address: 1311 Ann Arbor Road
Tax ID(s): #78-059-03-0039-300 and #78-059-03-0042-000
Zoning: ARC, Ann Arbor Road Corridor District
Action Requested: Planner Haw provided a summary of conditions for tentative site plan approval for the Biggby Coffee located at 1311 Ann Arbor Road. The Planning Department recommendations included a revised final site plan to address landscaping treatment along the southern property line to the satisfaction of the Commission and the adjacent homeowner.
- Motion: Moved by: Commissioner Itself
Support by: Commissioner Boyd
Action Taken: To grant approval tentative site plan approval for PC# 2465 Biggby Coffee House, subject to the conditions within the Planner's and Engineer's report.
- All Ayes. Motion Passed.
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7. Unfinished Business:

A.	PC# 2458	Taco Bell Remodel – Site Plan Review #2
Applicant:		ArcVision
Address:		205 Ann Arbor Road
Tax ID(s):		#78-061-99-0012-001
Zoning:		ARC, Ann Arbor Road Corridor District
Action Requested:		Planner Haw provided an overview of the proposed remodeling of the Taco Bell restaurant. This project was previously considered by the Planning Commission including a second drive-through lane. Due to the number of outstanding site plan items, a table for this project was recommended in the Planner’s report.
Motion:		Moved by: Commissioner Barberena Support by: Commissioner Itsell All Ayes. Motion Passed.
		Action Taken: Postponed application #2458 Taco Bell remodel for up to six months to address conditions reviewed by the Planning Commission.

8. Miscellaneous Business / Communication

Monthly Planning Report – February 2023.
Receive and file, no concerns noted.

9. Commissioner Comments

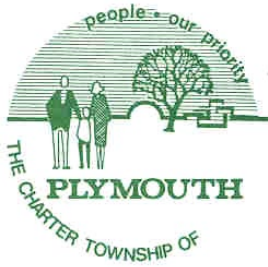
Commissioner Cebulski shared that he inquired about lumber delivered to Verona Park on Beck Road. Ms. Haw will provide an update.

Commissioner Boyd provided a summary to the February 28th Board of Trustees meeting where there were several Salem Township attendees that were in opposition to the warehouse as it was incorrectly believed that it would be located six-feet from Napier Road. Commissioner Boyd stressed the warehouse will not be six-feet from the property line, but it will be at least 185-feet from the edge of the parking lot on Napier Road.

10. Adjournment

Moved by Commissioner Doroshewitz, with support by Commissioner Barberena to adjourn at 9:29 PM.
All Ayes. Motion Passed.

Commissioner G. Grieger, Secretary



Planning Commission

Charter Township of Plymouth, MI

Wednesday, April 19, 2023

Regular Meeting

Proposed Planning Commission Minutes

7:00 PM · Township Municipal Offices

Meeting called to order at 7:03 PM

1. Roll Call:

- Commissioner Cebulski, Chair
- Commissioner Barberena, Vice Chair
- Commissioner Grieger, Secretary
- Commissioner Doroshewitz
- Commissioner Berry
- Commissioner Boyd
- Excused Commissioner Itsell

Also Present: Laura Haw, Planner
Denisa Terrell, Recording Secretary

2. Approval of the Agenda: April 19, 2023

Moved by Commissioner Barberena, with support by Commissioner Boyd to approve the agenda, as submitted.

All Ayes. Motion Passed.

3. Approval of the Minutes: February 15, 2023

Moved by Commissioner Barberena, with support by Commissioner Boyd to approve the minutes of the Planning Commission's meeting of February 15, 2023.

All Ayes. Motion Passed.

4. Public Comment:

Mr. Wire would like to purchase the property located at 14272 Northville Road (Tates Cleaners), which was a former dry cleaner. He would like to change the zoning to live there. There is a language barrier with the current property owner. He was advised that obtaining a conditional purchase agreement would be best as promises to change the zoning do not exist.

Mr. Stewart (Current Trustee) presented an invitation to an Earth Day concert at the Salem Auditorium on Saturday, April 22, 2022. He emphasized that the Michigan Philharmonic Youth Orchestra will perform alongside the High School Brass. He shared that there will be displays in the hallway from the Township Environment Council as well as displays from the Friends of the Rouge. On May 23rd is a statewide event at PARC that will include the Small Business Association President, Brian Kelly and the Mayor of Holland, who will present on economic development.

5. Public Hearing(s):

A.	PC# 2472	St John's Townhomes – PUD Option
Applicant:	Pulte Homes of Michigan, LLC	
Address:	Northeast of the intersection of Sheldon Road and Shearer Drive, adjacent to the St. John's Resort and Golf Course	
Tax ID(s):	#78-013-990-001-001	
Zoning:	TAR, Technology, and Research District	
Action Requested:	Planner Haw reviewed the PUD application for the St. John Resort and Golf Course off the intersection of Sheldon Road and Shearer Drive. She outlined the 73 townhome units that will exist on 8 acres. It was shared that 54% of the development will remain open space. Ms. Haw outlined the criteria necessary for the PUD option. She also emphasized the conditions within the Planner's report, including that the preservation of natural features be enhanced, the installation of an 8-foot non-motorized pathway, reduced parking and impervious surface area, details for the sides of the proposed structures, and sufficient buffering and additional landscaping.	
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The Public Hearing Opened at 7:33 PM.		
There were no public comments.		
The Public Hearing Closed at 7:35 PM.		
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Motion:	Moved by: Commissioner Barberena Support by: Commissioner Berry All Ayes. Motion Passed. Action Taken: Recommended approval to the Township Board of Trustees for the St John's PUD Option, based on the findings of fact and compliance with Article 23 of the Ordinance, as documented in the Planner's report, provided that the outstanding items are submitted to the Township, prior to consideration by the Board of Trustees (including the traffic impact memorandum, and a revised PUD eligibility report, the Planners report recommendations, as well as the feasibility study of the boardwalk for the pathway).	
B.	PC# 2474	Sparr's Greenhouse – Conditional Rezoning from R-1 to C-2: Recommendation to the Board of Trustees
Applicant:	Naji Kahala (MZY Investments Copr.)	
Address:	42501 Joy Road	
Tax ID(s):	#78-061-99-0031-000, 78-061-99-0032-000, 78-061-99-0033-000, 78-061-99-0034-000, and 78-061-99-0035-000.	
Zoning:	R-1, Single-Family Residential District	
Action Requested:	Planner Haw gave a presentation detailing the process for the conditional rezoning from the R-1 to C-2 District and how the PUD Option application would then follow. She clarified that if the PUD Option is not approved, the zoning would revert back to the R-1 District. She also indicated the maximum height of a structure is 35 feet and advised that a traffic impact study will be available during the PUD Option. Based on the Township's rezoning criteria in Article 33, Planner Haw recommended approval of the PUD to the Township Board of Trustees for final approval.	
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The Public Hearing Opened at 8:01 PM.		

Commissioner Grieger read three letters of opposition into the record.

Kimberly and James indicated the C-2 zoning is different and inconsistent with the surrounding area. It will drain the resources of the schools.

Jimmy and Cristy oppose the rezoning. The proposed rezoning does not align with the Master Plan. It will have a negative impact on property values.

Friends of the Rouge oppose the rezoning due to its negative impact on Tonquish Creek.

Ken opposes the rezoning due to not knowing what will be built in the location.

Wendy opposes the rezoning due to it not fitting for the neighborhood. It is a flood zone due to high water tables. The neighborhood is already impacted by heavy traffic.

Cindy is in opposition to the rezoning due to flooding in the area.

Paula and Gordan voiced concern about increased traffic on Lilley Road.

Mike likes St. Johns as it will add value to the surrounding area whereas the rezoning will disturb residential homes.

John requested denial of the rezoning due to traffic and the cutting down of trees that will occur.

Angela expressed concern about the safety of the children in the neighborhood due to increased safety. She also expressed concern about crime increasing.

David is concerned due to not knowing what the proposed property will look like.

Jan expressed concern about congestion and population growth.

Dave spoke about the creek rising to flood level with a little rain. He is concerned about what will happen when the trees are removed.

The Public Hearing Closed at 9:04 PM.

Motion:

Moved by: Commissioner Barberena

Support by: Commissioner Grieger

Roll Call Vote

Ayes : Commissioner Grieger, Commissioner Barberena,
Commissioner Cebulski, Commissioner Boyd,

Commissioner Doroshewitz
Nays: Commissioner Berry
Motion Passed.

Action Taken: Recommended denial of PC# 2474 Conditional Rezoning from the R-1 to the C-2 District as the request is not consistent with the 2015 Master Plan. The 2025 Master Plan has not been approved. When the 2025 Master Plan is discussed it should include the northeast and northwest corner of Joy and Lilley to hear from everyone.

C.	PC# 2475	Tim Horton's – Special Land Use
	Applicant:	Heather Nikki Cook (MS Consultants, Inc.)
	Address:	39601 Ann Arbor Road
	Tax ID(s):	#78-066-99-0012-001
	Zoning:	ARC, Ann Arbor Road Corridor District
	Action Requested:	Planner Haw provided a summary of Tim Horton's Special Land Use request located at 39601 Ann Arbor Road. Ms. Haw recommended granting special land use approval for the proposed Tim Horton's drive-through, based upon compliance with the special land use criteria of Sec. 2.7, with conditions to include existing code enforcement issues and zoning non-compliance being resolved before issuance of a certificate of occupancy, there must be signage prohibiting eating in a parked vehicle, and the drive-through service speaker shall not cause noise that is audible from adjacent residences.
		The Public Hearing Opened at 9:56 PM. Commissioner Grieger read into the record a letter of opposition from a neighbor two blocks from the proposed Tim Horton's due to concerns about noise and air quality from vehicles.
		Alex expressed support for the proposed Tim Hortons and the family.
		The Public Hearing Closed at 9:59 PM.
	Motion:	Moved by: Commissioner Boyd Support by: Commissioner Berry All Ayes. Motion Passed.
		Action Taken: Approved application 2475 Tim Horton's Drive-Thru, contingent upon site plan approval, and based on the findings of fact and compliance with Section 2.7 of the Ordinance, as documented in the Planner's report.

6. New Business:

A.	PC# 2476	Tim Horton's – Site Plan
	Applicant:	Heather Nikki Cook (MS Consultants, Inc.)
	Address:	39601 Ann Arbor Road
	Tax ID(s):	# 78-066-99-0012-001
	Zoning:	ARC, Ann Arbor Road Corridor
	Action Requested:	Planner Haw, presented the report and advised that the Planning Department recommended site plan, with conditions to include the following items site

plan elevations and floor plans be signed and sealed by a licensed architect or engineer, the applicant must provide information on the color and shielding mechanisms for the light band as well as light fixtures added over the front entryway and over the drive-thru, as well as noting that the non-compliant landscaping and screening elements will be corrected by the property owner prior to any further improvements or certificates of occupancy.

Motion: Moved by: Commissioner Boyd
Support by: Commissioner Grieger
All Ayes. Motion Passed.

Action Taken: Approved PC# 2476 granting approval of the tentative and final site plan for Tim Horton's, subject to conditions listed in the Planning reports. The approval does not include signage.

B. PC# 2477 Halyard Ridge Business Park – Site Plan (Tentative / Final)

Applicant: BCCG Construction (on behalf of Choctaw-Kaul Distribution)
Address: 15000 Ridge Road
Tax ID(s): #78-006-99-0001-002
Zoning: IND, Industrial District
Action Requested: Planner Haw presented the Planner's report, which detailed compliance with the appropriate standards for site plan review. A recommendation to approve, as presented was given.

Motion: Moved by: Commissioner Doroshewitz
Support by: Commissioner Berry
All Ayes. Motion Passed.

Action Taken: Granted tentative and final site plan approval for PC# 2477, the outdoor storage yard for Choctaw-Kaul Distribution at 15000 Ridge Road.

7. Unfinished Business:

A. PC# 2465 Bigby Coffee – Site Plan (Final)

Applicant: R&B Coffee House of Plymouth, LLC
Address: 1311 Ann Arbor Road
Tax ID(s): #78-059-03-0039-300 and 78-059-03-0042-000
Zoning: ARC, Ann Arbor Road Corridor District
Action Requested: Planner Haw provided an update on conditions outlined from the Planning Commission's tentative site plan approval. She also shared the applicant's update to the landscaping, fencing, and screening plans. Ms. Haw also advised of the Engineering report approval, and recommended approval, with minor final conditions to be addressed administratively.

Motion: Moved by: Commissioner Boyd
Support by: Commissioner Grieger
All Ayes. Motion Passed.

Action Taken: Granted final site plan approval for the Bigby Coffee shop at 1311 Ann Arbor Road (PC# 2465), with conditions to be handled administratively, and contingent that no signage is approved as part of this application.

8. Miscellaneous Business / Communication

Monthly Planning Report – March 2023.

Receive and file, no concerns noted.

9. Commissioner Comments

Commissioner Boyd expressed that he is receiving feedback that the community does not understand why the roads are not factored into decisions.

It was noted that social media does not always reflect the correct details of the information presented and that residents should contact the Township directly with questions.

10. Adjournment

Moved by Commissioner Doroshewitz, with support by Commissioner Barberena to adjourn the meeting at 10:35 PM.

All Ayes. Motion Passed.

Commissioner G. Grieger, Secretary



Planning Commission

Charter Township of Plymouth, MI

Thursday, May 3, 2023

Special Meeting

Proposed Planning Commission Minutes

7:00 PM · Township Municipal Offices

Meeting called to order at 7:00 PM.

1. Roll Call:

- Commissioner Cebulski, Chair
- Commissioner Barberena, Vice Chair
- Commissioner Grieger, Secretary
- Commissioner Doroshewitz
- Commissioner Boyd
- Commissioner Itsell

Excused: Commissioner Berry

Also Present:

Laura Haw, Planner
Denisa Terrell, Recording Secretary
Ryan Waggoner, Recording Secretary
Kevin Bennett, Attorney
Adam Chludzinski, Engineer
Lt. Ryan Kolb, Police

55 Community Members in Attendance

2. Approval of the Agenda: May 3, 2023

Moved by Commissioner Barberena, with support by Commissioner Boyd to approve the agenda as submitted.

All Ayes. Motion Passed.

3. Approval of the Minutes: Deferred.

4. Public Comments. None.

5. Public Hearing(s):

PC# 2478: Northville Downs of Plymouth - PUD Development Plan

Southwest corner of 5 Mile and Ridge Roads

Action Requested: PUD Planning Site Plan and PUD Contract, Recommendation to Board of Trustees. Township Planner, Lara Haw shared information concerning the proposed development at the southwest corner of Ridge Road and Five Mile Road, the development of the Northville Downs of Plymouth – PUD Option to the Plymouth community.

Ms. Haw reiterates that as a PUD, this is the next step in a multi-step development with various public meetings. These options were recommended for approval on February 15th and the Board of Trustees reviewed and approved the PUD option on February 28th from the recommendation of the Planning Commission. This being the third step put forth to the Planning Commission, is the PUD Development Site Plan and PUD Contract. Both are recommendations to the Board of Trustees from the Planning Commission as the ultimate authority. The fourth and fifth steps are for the PUD Development Plan and Approved PUD option reviews.

Township Engineer, Mr. Chludzinski, provided a review letter on April 20th for the provided site plan. Many utilities are already in place such as the water main, sanitary and storm-water detention facility, and have been reviewed and accepted. Modifications would require additional recording documents.

The PEA Group, represented by Becky Klein, coordinated with Fire Inspector to include gates and equipment to meet specifications and recommendations, prepared an Emergency Management Plan, introduced the Planning Commission to the PACE Program as a resource for supplemental financing.

The Public Hearing Opened at 7:53 PM.

Comments Opposed

- Comments about traffic volume and signage: 5
- Comments about PUD qualification: 1
- Comments about project financing: 1
- Comments about single-lane entrance/exit and parking availability: 1
- Comments about site Features, architectural continuity and beautification: 2
- Comments about possible future phases of development or strategies for possible commercialized failure: 2

Note: Several comments in opposition of the project addressed more than one of these items. Comments are categorized based on their primary topic.

Comments in Favor

- Comments about recreation options: 1
- Comments about local revenue and project financing: 1

Neutral/Mixed Comments

Public Comments about the environmental impacts of site: 1

Commissioner Cebulski reminded the public that the Township met all notice requirements for appropriate notice for the PUD application, process and approval timelines, and referenced all materials that are currently available.

The Public Hearing Closed at 8:17 PM.

Moved by: Commissioner Barberena
Supported by: Commissioner Grieger

All Ayes. Motion Carried.

Action Taken: To postpone application PC# 2464 Northville Downs of Plymouth – PUD Development Plan for up to 90 days. The Planning Commission recommends that the applicants review the Planners report, Fire Department report, Plymouth Township Traffic Report and any additional reports that are available, and make those adjustments, prior to resubmitting.

6. New Business: None.

7. Unfinished Business: None.

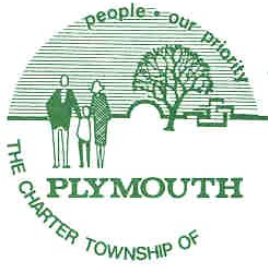
8. Miscellaneous Business / Communication. None.

9. Commissioner Comments. None.

10. Adjournment

Moved by Commissioner Doroshewitz, with support by Commissioner Barberena to adjourn at 8:32 PM.
All Ayes. Motion Passed.

Commissioner G. Grieger, Secretary



Planning Commission

Charter Township of Plymouth, MI

Wednesday, May 17, 2023

Regular Meeting

Proposed Planning Commission Minutes

7:00 PM · Township Municipal Offices

Meeting called to order at 7:00 PM.

1. Roll Call:

- Commissioner Cebulski, Chair
- Commissioner Barberena, Vice Chair
- Commissioner Grieger, Secretary
- Commissioner Doroshewitz
- Commissioner Berry

Excused:

Commissioner Boyd
Commissioner Itsell

Also Present: Laura Haw, Planner
Ashley Amey, Planner
Adam Chludzinski, Engineer
Denisa Terrell, Recording Secretary
Ryan Waggoner, Recording Secretary

Members of the Public: 12

Special Comments

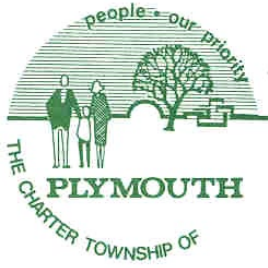
A moment of silence was taken to recognize Keith Postell and his exemplary impact over 17 years of service for the citizenry of Plymouth, as a Planning Commissioner, among other contributions.

2. Approval of the Agenda: Wednesday, May 17th, 2023

Moved by Commissioner Barberena, with support by Commissioner Boyd to approve the agenda as submitted.
All Ayes. Motion Passed.

3. Approval of the Minutes: Deferred.

4. Public Comment(s): No Comments.



Planning Commission

Charter Township of Plymouth, MI

5. Public Hearing(s):

PC #2481	PENSKE - Special Land Use
Address:	40111, 40249, & 40251 Schoolcraft Road
Zoning:	IND, Industrial District
Action Requested:	Planner Haw presented an overview of the report, which detailed how the applicant seeks to operate a motor vehicle and truck leasing, rental, and sales business. Planner Haw provided the recommendation of approval for special land use with conditions.
Public Hearing	Public Hearing Opened at 7:21 PM. No Comments. Public Hearing Closed at 7:22 PM.
Motions:	Motion to approve the Special Land Use by Commission Barberena. Supported by Commissioner Grieger. All Ayes. Motion Passed.
	 Action Taken: To grant Special Land Use approval, contingent upon site plan approval, and based on the findings of fact and compliance with Section 2.7 of the Ordinance, as documented in the Planner's report, and provided that the following conditions are met and so noted on a revised Special Land Use plan:
	<ul style="list-style-type: none"> • There will be no storage of parts, assemblies, and/or other materials on the property. • Storage of wrecked or abandoned vehicles will not occur on the property. • Security of the site will be detailed inside and outside of operating hours such as cameras, computer access gates, etc.

6. New Business:

PC #2480	Lot 14 Concept Drive – Site Plan
Address:	41015 Concept Drive
Zoning:	IND, Industrial District
Action Requested:	Planner Amey presented the report for PC# 2480. The applicant previously submitted site plans but lapsed due to inactivity. Planner Ashley also recommended the applicant revise and resubmit the site plan to address previous conditions including the physical layout of the site, truck access and easements, adequate landscaping, and parking dimensions as the applicant requested both preliminary and final approval. Tentative site plan approval recommended is with conditions. The Township Planning and Engineering recommends approval of the applicant's ability to meet the criteria for the project. No sidewalks will be acceptable with payment in lieu.
Motions:	Motion to approve by Commission Barberena. Supported by Commissioner Boyd. All Ayes. Motion Passed.



MCKENNA

May 30, 2023

Planning Commission
Charter Township of Plymouth
9955 N. Haggerty Road
Plymouth, Michigan 48170

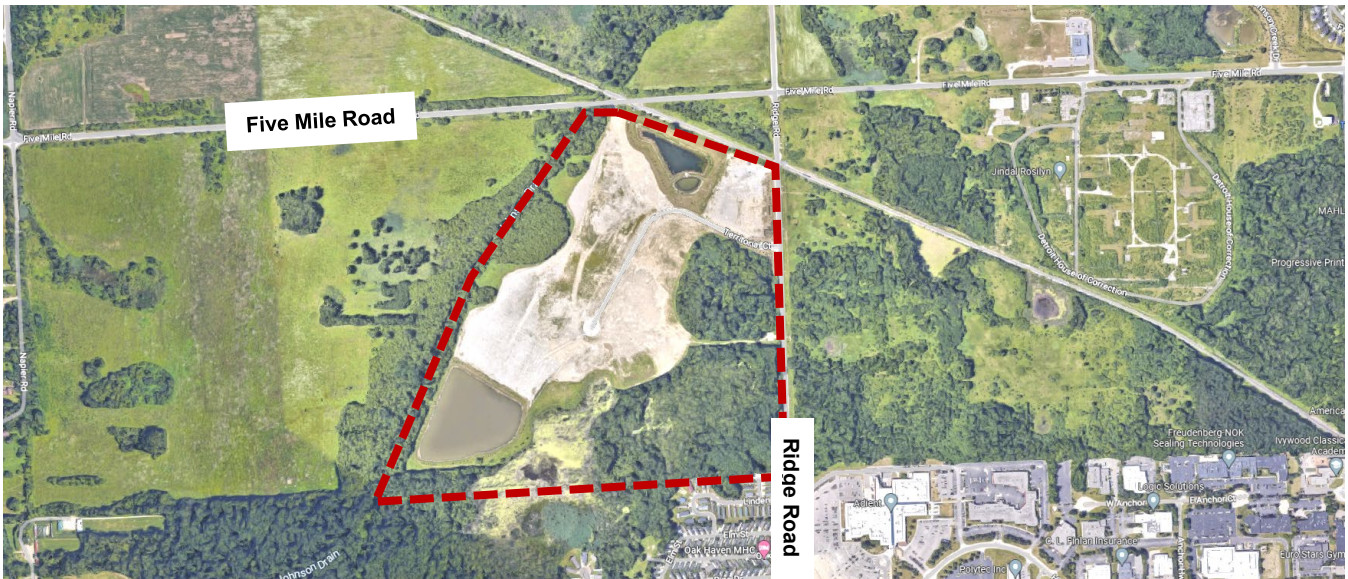
Subject: #2478 - Northville Downs of Plymouth: Planned Unit Development (PUD) Site Development Plan - Review #2

Parcel IDs: R-78-001-99-0001-704, R-78-001-01-0001-000, R-78-001-01-0002-000, R-78-001-01-0003-000, R-78-001-01-0004-000, R-78-001-01-0005-000, R-78-001-01-0006-000, R-78-001-01-0007-000, and R-78-001-01-0008-000

Dear Planning Commissioners,

We have reviewed the Planned Unit Development (PUD) Site Development Plan submitted by PEA Group Engineering and Northville Downs (the current property owner, "Applicant"). The proposed Project is for a new horseracing track facility and involves the relocation of the current Northville Downs racetrack (in the City of Northville) to the Plymouth community.

The proposed development ("Project") is located at the southwest corner of the Ridge Road and Five Mile Road intersection on approximately 125 acres (see Google aerial below) and is bordered to the north by the Chesapeake and Ohio Railroad (CSX) and to the west by the Johnson Drain. Previously, an industrial park called the Ridge 5 Corporate Park was planned for the site and the site was partially cleared, as shown below in the aerial – this project has since been withdrawn. The site is also part of the Michigan International Technology Center (MITC), which is a joint effort between Plymouth and Northville Townships (<https://www.mitc-usa.org/>).



HEADQUARTERS
235 East Main Street
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Northville, Michigan 48167

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Project Background and the PUD Process

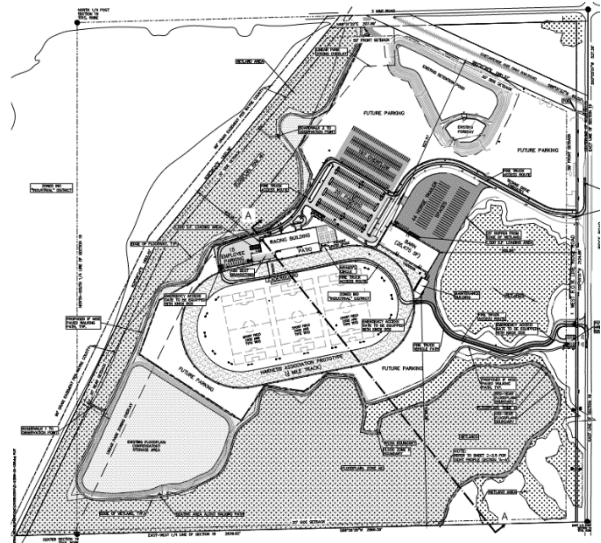
PROJECT HISTORY

The Carlo family (the Developer) has operated the current Northville Downs racetrack in the City of Northville since 1944, and now intends to relocate the racetrack to the Plymouth community and construct a new facility. In January of 2023, the Northville Downs of Plymouth Planned Unit Development (PUD) proposal was submitted to the Township for review.

PROJECT SUMMARY

The proposed Project includes the construction of a:

- ½ mile harness racetrack
- ±4,900 sq. ft. grandstand (±480 seats)
- ±23,000 sq. ft. racing building
- ±35,500 sq. ft. horse barn
- ±3,200 sq. ft. maintenance building
- parking and loading areas
- public walking path along Johnson Creek (with access from Ridge Road)



PUD PROCESS

Step #1: Planning Commission Consideration and Public Hearing

The first step for any proposed PUD is to apply for the PUD Option – in essence, the developer is asking the Township for the option to have a PUD on a given site. The PUD Option process precedes any formal site plan application and is an essential step in determining if a site is the appropriate location for a given PUD.

On February 15, 2023, the Planning Commission held a public hearing to discuss the proposal and hear public comment from residents and stakeholders. Following the public hearing on February 15, the Commission made a recommendation to the Board of Trustees for approval of the PUD Option, with conditions.

Step #2: Board of Trustees Consideration

The PUD Option was then considered by the Board of Trustees on February 28, 2023, after which the Board approved resolution #2023-02-28-14 to approve, with conditions, the PUD Option.

Approval of the PUD Option allowed the Developer 1-year to submit for site development plan approval. The site plan (aka “Development Plan”) has since been reviewed by Township staff. The Developer has also submitted a proposed PUD Contract, which is a document that sets forth any special conditions, restrictions, and agreements regarding the property. The PUD Contract is also reviewed by Township staff, including the Township attorney.



Step #3: Planning Commission Consideration for the Development Plan – Current Step

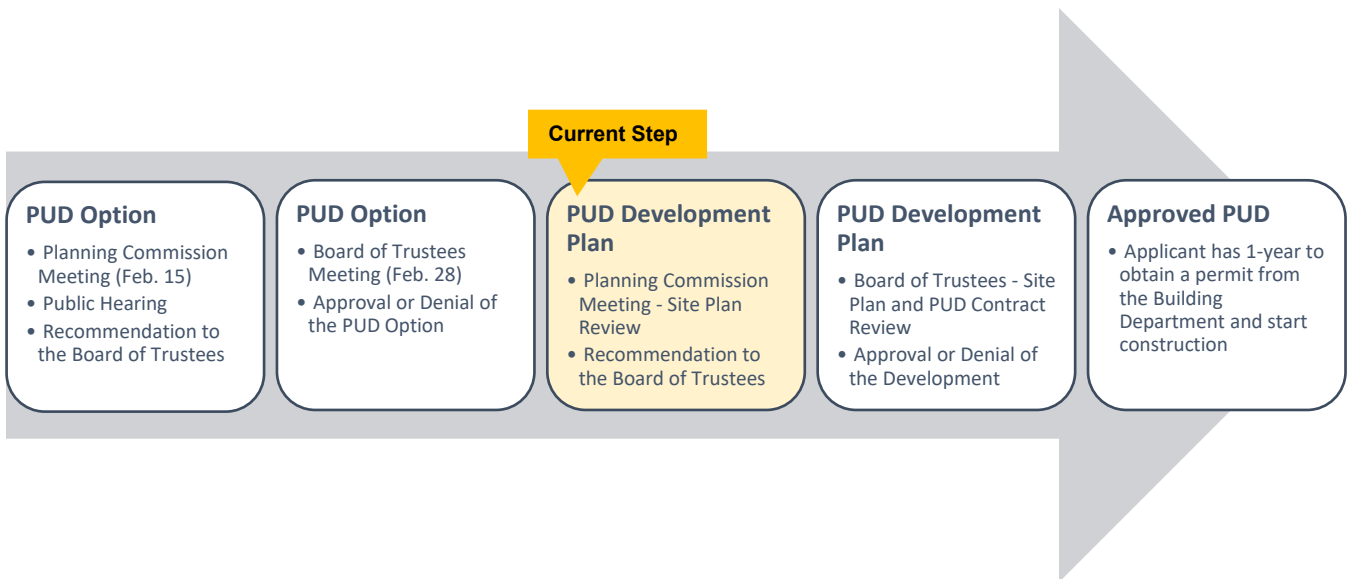
The revised Development Plan will be presented to the Planning Commission on June 1, 2023, for consideration. At that time, the Planning Commission may recommend either approval, approval with conditions, or denial to the Board of Trustees.

Step #4: Board of Trustees Consideration for the Final Development Plan and PUD Contract – TBD

Once the Planning Commission makes a recommendation, the final Development Plan and PUD Contract will be presented to the Board of Trustees. The Trustees would then vote to approve, approve with conditions, or deny the Development Plan and PUD Contract as submitted.

SUMMARY OF THE ENTIRE PUD PROCESS

The flow chart below provides a summary of the key steps in the PUD process; this project is currently at the third stage in the review process:





PUD Development Plan

The Development Plan (the proposed site plan) must meet the requirements for site plan approval (as set forth in section 29.8.2), as well as the specific standards of the Planned Unit Development (PUD) ordinance (section 23.9), which are outlined below:

SITE DESIGN (ZONING & USE)

The siting of all structures and all elements of the site design shall be harmoniously and efficiently organized in relation to topography, parcel configuration, adjacent properties, traffic operations, adjacent streets and driveways, pedestrian access, and the type and size of buildings. The site design shall ensure that adequate light and air are preserved so as not to be detrimental to the orderly and harmonious development of the Township.

Findings: Per the [Zoning Map](#), the subject site is zoned the Industrial (IND) District with a PUD overlay. A PUD is an alternative method of development that may be permitted only after a public hearing, review and recommendation by the Planning Commission, and approval by the Board of Trustees. The PUD Option was granted by the Board of Trustees in February of 2023 for the proposed horse racetrack facility.

The proposed project is entirely composed of recreational, sport, and entertainment uses, and does not include an industrial component. The location, height, bulk, and character of the proposed Project are generally in line with the Master Plan are not expected to disrupt the orderly development and functioning of adjacent properties. Further, the proposed use of the property is not expected to disrupt neighboring industrial developments in the MITC.

SITE APPEARANCE & COORDINATION

Site elements and the relationship between the various uses on the site shall be designed and located so that the proposed development is aesthetically pleasing and harmonious with adjacent existing and prospective development of contiguous properties and the general planning area. All site features, including vehicle and pedestrian circulation, building orientation, landscaping, lighting, utilities, recreation facilities, and open space shall be designed to coordinate with adjacent properties and uses.

Findings: The proposed footprint of the use fits within the existing land area that was improved (already graded and cleared) for development during the previously approved Ridge 5 Business Park. Under a PUD, the following dimensional standards apply and the project is in compliance with these dimensional standards:

Dimensional Measurement	Required	Proposed	Comments
Min. Lot Area	None	±125 acres	n/a
Max. Lot Coverage	None	Total Impervious Area: 9.93 acres (7.9%) 1.53 acres (1.21%) building coverage 8.40 acres (6.69%) paved surfaces	n/a
Min. Distance Between Buildings	10-feet, plus +4-feet per story after 2-stories	>10-feet	In compliance.



Dimensional Measurement	Required	Proposed	Comments
Max. Building Height	9-stories	Grandstand Building: 3-stories (46-feet) Barn: 1-story (±22 feet) Maintenance Building: 1-story (±20 feet)	In compliance.
Min. Perimeter Yard Setbacks	25-feet	Front (North): ±927 Front (south): ±705 Side (east): ±412 Side (south): ±1,196	In compliance.
Min. Open Space	20% of total land area	Wetlands occupy 52.23 acres, 41.73% of the total site	In compliance.

PRESERVATION OF SITE FEATURES

The site design shall, to the extent feasible, conserve natural, cultural, historical, and architectural site features, including but not limited to architecturally or historically significant buildings, archeological sites, wetlands, topography and wooded areas.

Findings: The PUD Option gives the Developer greater flexibility in conserving open space through sound site planning and reducing impervious surface area. The Project contains numerous protected wetlands and conservation of these natural features to the highest degree possible is desired.

The proposed Project dedicates ±52 acres (41.7%) of the total site to wetlands and woodlands. This is a greater quantity than is required under the Industrial (IND) zoning district, which has no maximum lot coverage percentage. The woodland/wetland area will be open to the public via the walking trail with parking located off Ridge Road, which represents an increase in the amount of recreation land and opportunities in the Township. Additionally, all future parking areas are proposed to be within the already-graded portions of the site. As such, no additional tree removals would occur at the time of construction.

The Project does not contain any manmade features that are historically, culturally, or otherwise significant. Please see additional comments under the Landscaping section.

IMPACT ON PUBLIC SERVICES

Utility services, including sanitary, water and storm runoff, shall not exceed the existing or planned capacity of such services, and shall be developed in the best interest of the public health, safety and welfare of the community. The proposed development shall be designed and located so that public services, including streets and sidewalks, police and fire protection, and public schools have sufficient capacity to properly serve the development, and so that such services will not be adversely affected by the proposed development.

Findings: The site is served by existing utilities from Ridge Road and already has existing underground infrastructure along Techne Drive. Approval of this standard is subject to the Township Fire Chief and Township Engineer.



VEHICULAR ACCESS & CIRCULATION

The vehicular circulation system planned for the proposed development shall be in the best interest of the public health, safety, and welfare in regard to on site circulation, onsite parking, the overall circulation of the neighborhood and community, egress/ingress to the site, vehicular turning movements related to parking areas, loading areas, street intersections, street gradient, site distance and potential hazards to the normal flow of traffic both on and off site.

Findings: The existing Techne Drive boulevard entrance, which is adequate in width to provide truck access to the site, will be maintained as the primary access to Ridge Road and the site. Overall, the circulation proposed under the Project site plan conforms to the Master Plan objective to “Reduce the potential for vehicular conflicts by keeping the number of curb cuts along major thoroughfares and collector roads to a minimum and encourage the use of shared access points.” A secondary entrance off Ridge Road is proposed for emergency access, as well as public access to the trailhead parking lot.

PEDESTRIAN ACCESS & CIRCULATION

The pedestrian circulation system planned for the proposed development shall be in the best interest of the public health, safety and welfare in regards to on site circulation and the overall pedestrian circulation of the neighborhood and community.

Findings: The Project includes sidewalks along the perimeter of the racing building, maintenance building, and barn. As a previous condition of approval, a sidewalk from the main entrance on Ridge Road is now provided to the main entrance of the facility. Sheets C-4.4 and C-4.5 show an 8-foot sidewalk along Ridge Road, which was a condition of approval by the PUD Option.

The proposed walking path through the site’s wetlands is a critical part of the pedestrian network in the northwest area of the Township. To make the path fully accessible to all users, both the parking lot and the path will now be paved (or a boardwalk, for approximately 100-feet of the trailway) and the path will be 8-feet in width. An ADA-accessible parking space has also been added to the parking lot. Three spurs to scenic areas of the Johnson Drain, and community signage for the parking lot and path, will also be provided.

EMERGENCY ACCESS & VULNERABILITY TO HAZARDS

All sites and buildings shall be designed to allow convenient and direct emergency access, and the emergency response needs of the proposed use(s) shall not exceed the Township’s emergency response capabilities.

Findings: This item is subject to approval by the Township Fire Chief and Township Engineer.

LANDSCAPING, SCREENING & BUFFERING

Proposed landscaping, screening and buffer areas shall be appropriate and of such size, location, height and quantity to ensure that the proposed development will not be objectionable to nearby development or properties by reason of noise, fumes, flash of lights from automobiles or other lighting, interference with an adequate supply of light and air, an increase in the danger of fire, or other public safety hazard. Screening shall be provided in a manner that adequately buffers adjacent land uses and screens off-street parking, mechanical appurtenances, loading and unloading areas and storage areas from adjacent residential areas and public rights-of-way.



Findings: As a condition of the PUD Option, additional landscaping, beyond what is required by Ordinance must be provided. Specific recommendations are listed below:

Detention Basin Landscaping

The selected permanent plants for the emergent wetland seed mix and the stormwater seed mix are all native species appropriate for the soil type of the selected environments (respectively). A minimum 25-foot buffer has been provided around both detention ponds.

Right-of-Way Landscaping

The right-of-way landscaping is absent along the gravel access drive. Given that people will be walking adjacent to this right-of-way as they use the multi-use path, shade trees should be provided at regular intervals.

No trees are proposed along the length of Ridge Road. Deciduous trees should be provided at regular intervals along the lawn extension fronting Ridge Road (with the understanding that Wayne County's review may affect tree placement and number). Under conventional zoning, trees must be planted along the entire length of the site frontage, in an amount equal to a minimum of one street tree per 40-feet of site frontage, as measured at the street setback line.

Parking Lot Landscaping

The overflow parking area does not include any landscaped islands, trees, swales, or curbing on the east and west sides. These features should be included given that this is a permanent parking lot. The northern edge of the parking area is appropriate to leave un-curbed, given that future lot expansion may warrant connecting this edge to future parking (if constructed due to increased visitor demand).

The horse trailer parking area should include curbing and the establishment of a swale (or intermittent swales, separated by curb) along the western edge, which would capture runoff from the trailer area and infiltrate it before reaching the wetland.

Additional infiltration opportunities should be explored for the general parking areas – curb cuts leading into strategically placed swales along the parking lot perimeters swales could help further infiltrate stormwater. Although this would not eliminate the need for the detention basin, it would help improve overall water quality by limiting the distance rainwater travels across the land's surface (during which time it collects particles and pollutants). Further, the USGS Soil Survey indicates the site is predominately loamy soil, which typically has good or very good drainage. More engineering study would be required to determine where swales or other interventions would be feasible, and we highly encourage that this be examined.

The dimensions of the parking lot islands are missing and must be included. This is necessary to determine the number of trees that should be provided per island – under conventional zoning, a minimum of one deciduous shade tree shall be provided for each 80 square feet of planting area within the island.

General Landscaping

The proposed Rain Garden plantings are all native species of acceptable size and quantity.

There is a distinct lack of shrubs and ornamental plantings throughout the site interior. The lawn areas surrounding the parking lot, roadways, and front entrance should be enhanced with flowering shrubs, grasses, and other ornamentals. In particular, a mix of perennials, annuals, and evergreen should be provided to ensure that landscaping is present year-round. Further, species should be drought-resistant in the non-irrigated lawn areas.



The plant materials are all uniform calipers – the Township typically requires a mix of tree heights and sizes to establish visual interest throughout a site.

There are two large lawn areas to the south of the racetrack that are not visible to the public – these areas should be plated with a drought-resistant native groundcover mix, rather than lawn, to ensure they are resilient and low-maintenance, but still accessible by emergency crews. The grass species for the sod lawn and seed lawn, respectively, must be provided.

BUILDING DESIGN & ARCHITECTURE

Building design and architecture shall relate to and be harmonious with the surrounding neighborhood in terms of texture, scale, mass, proportion, materials, and color.

Findings: The proposed racing building and grandstand is designed using smooth-finish metal panels, brick, and split-face block. The proposed barn and maintenance building are designed using vertical ribbed metal siding and split-face block. The Applicant proposes a modernist architectural design for the racing building and a traditional design for the barn and maintenance building. As a PUD, the proposed building elevations must be found acceptable by the Planning Commission.

Both the barn and maintenance building are single-story structures and no greater than 25-feet in height, which is shorter in height than a typical industrial building. The main grandstand building is proposed at 45-feet in height, which is similar to other industrial buildings and does not exceed the maximum allowable height of the PUD Option (9-stories).

All proposed signs must comply with the requirements of Article 25: Sign Regulations and be submitted under separate cover.

EXTERIOR LIGHTING

All exterior lighting fixtures shall be designed, arranged, and shielded to minimize glare and light pollution, prevent night blindness, and vision impairments, and maximize security.

Findings: The proposed lighting levels for the race track, while brighter than allowed under the standard zoning ordinance, are similar in height and brightness to what the Township has installed in Township Park for the ballfields, and we do not have an objection to the proposed lighting plan. The proposed lighting within the general parking lot area does comply with the standard zoning ordinance minimums.

PUD CONTRACT

A PUD Contract is required, which complies with the requirements of section 23.8.

Findings: The draft PUD Contract must be found acceptable by the Township Attorney, it is our understanding that modifications will be required and sent to the Board of Trustees accordingly for their final review.



Recommendation

Based on the revised PUD Development Plan submitted, and provided that the Planning Commission finds the building elevations acceptable, it is recommended that the Planning Commission recommend approval of the PUD Development Plan to the Township Board of Trustees for consideration, contingent that: (a) the outstanding items in this Planning report are addressed; (b) the outstanding items in the Engineer's report are addressed; and (c) a revised PUD Contract is submitted to the Township Attorney (which is determined by the Attorney to be acceptable for the Board's consideration).

Please do not hesitate to contact us with any questions, thank you.

Respectfully submitted,

McKENNA

Laura E. Haw, AICP, NCI
Senior Principal Planner

CC: Township Clerk: Jerry Vorva, 9955 N. Haggerty Rd, Plymouth, MI 48170 (jvorva@plymouthtp.org)

May 30, 2023

The Planning Commission
Plymouth Charter Township
9955 North Haggerty Road
Plymouth, Michigan 48170

Re: Northville Downs – PUD Development Plan - Review #2
Application No. 2478-0423
SDA Review No. PL23-104

Dear Planning Commission:

We have received the site plan submittal for the above referenced project prepared by PEA Group dated May 19, 2023 and received by our office on May 19, 2023. The plans were reviewed in accordance with Plymouth Township Engineering Standards and the following comments are our observations.

A. General

The site is located on the southwest corner of 5 Mile Road and Ridge Road. The site is 125.16 acres total. The site is currently occupied by an existing 60' wide private road, Techne Drive, and the remaining of the site is vacant. The proposed project includes the removal of a part of the private road and construction of a racing building, maintenance building, barn, and half mile harness racing track with parking areas and horse trailer spaces along with drives connecting the site.

The proposed parcel legal description is within Parcel, Tax ID. 78-01-99-0001-704. This parcel was split/combined on 01/22/2021. A land combination for the existing Ridge 5 Corporate Park Condominium will be required prior to final site plan approval.

1. The existing site is located within floodplain and wetlands areas. The current plans indicate that the wetland areas will be impacted and disturbed. EGLE permits shall be obtained and provided for all work impacting wetlands.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. Provide cost estimate with unit cost for construction of all the underground utilities and paving and grading to be installed with this project. The engineering review and construction inspection fees that we will compute based on the said estimate must be submitted to the Township prior to engineering plan review and approval.
2. The condominium master deed was vacated at the time of closing on the property. A new master deed shall be provided for the proposed development, including new legal parcel descriptions and stormwater and sanitary sewer maintenance.

B. Water Main

The plans show an existing 12" diameter water main located on the south side along Techne Drive that loop around the existing wetland to the south and connects to the existing water main along

Ridge Road in two locations. The proposed watermain connects to existing 12” watermain at two locations by the proposed racetrack, and loops around the proposed racing building and it is captured within a proposed 12-foot-wide easement.

Based on this water main layout, we have the following site review comments:

1. Revise plans to remove references to existing water main easement and label proposed 12-foot-wide easement in the demolition and utility sheets.
2. An EGLE permit for construction will be required for the proposed public watermain.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. The Plymouth Fire Marshall shall review and approve the hydrant coverage for the site.

C. Sanitary Sewer

The plans show an existing 8” sanitary sewer located along the north side of Techne Drive and drains into a private pump station located approximately 500 feet west of the Ridge Road Right-of-Way and along the northern right-of-way of Techne Drive. There are two proposed leads connecting to the existing 8” sanitary sewer serving the proposed barn and racing building. There is a proposed 20-foot wide public sanitary easement for the existing 8” sanitary sewer along Ridge Road.

Based on this sanitary sewer layout, we have the following site review comment:

1. The existing sanitary sewer is to remain private, and a sanitary sewer and pump station maintenance schedule and escrow shall be provided in the new master deed.

D. Storm Drainage/Grading

Storm water runoff is to be captured via catch basins along the proposed parking areas and Techne Drive and drain to the existing detention facility on the north side of the site with outlet to the Johnson Drain. Records and storm water management calculations provided indicate that the proposed site is accounted for in the Ridge Road Industrial Park detention basin calculations.

Based on this storm drainage and grading layout, we have the following site review comments:

1. While the plans indicate that the pond and forebay exceed the current Wayne County Department of Public Services requirements, the county must confirm that no additional detention capacity and stormwater pre-treatment will be required by them. Review and approval will be required from the County.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. Provide slope grades along the proposed driveways, drive approach and sidewalk ramps.

E. Paving

The site is accessed by two driveways off Ridge Road, an existing 60' wide private road, Techne Drive, and a proposed emergency access. The proposed plans include a racing building, maintenance building, barn, and half mile harness racing track, 251 parking areas, 197 overflow parking spaces, 15 employee parking spaces and 44 horse trailer spaces along with drives connecting the site. Sidewalk is proposed along the frontage of the site on the west side of Ridge Road and a proposed 8' paved bike path is proposed around the site with a wooden boardwalk overlooking the drain from Five Mile Road along the drain and looping around the site to the proposed parking area along Ridge Road.

Based on this proposed work, we have the following site review comments:

1. Coordination with the Township will be required regarding the maintenance of the proposed asphalt walking path. The Township will have the authority to maintain the pathway in the event the owner does not maintain it, the appropriate easements shall be provided.
2. Secondary Fire Access Road will require ELECTRIC knoxbox accessible gates. The use of the racetrack as a second access will require higher standard on gates. The proposed layout shall be reviewed and approved by the Plymouth Fire Marshall.

F. Traffic

Per the attached traffic review memorandum, the racetrack falls below the land uses that have been previously considered for this location. The proposed development will not have a significant impact on the peak traffic conditions on Ridge Road and Five Mile Road.

Permits Required

Based on those improvements depicted on the plans, the following permits may be required and will need to be provided to the Township once available. Any changes to the approved site plan from the following agencies that impact the design may require reapproval.

Plymouth Township:

1. All necessary easements including water main easement. Easements must be on Plymouth Township Standard Easement document and include a sketch. A current title policy for ownership verification shall be provided with all executed easement submittals.
2. Storm Water Agreement (for the stormwater system improvement on the site).
3. Maintenance bond and insurance for the water main to be dedicated to the township.

Wayne County:

1. Copy of Wayne County Department of Public Services approval and permit.
2. Copy of Soil Erosion and Sedimentation permit from Wayne County Department of Public Services, Land Resource Management Division.
3. Wayne County Permit for any work within the Ridge Road ROW, if applicable.

Michigan Department of Environment, Great Lakes, and Energy (EGLE):

1. NPDES Notice of Coverage Documentation.
2. EGLE Permit for all water main installation.
3. EGLE Permit for all proposed work within the state-regulated wetlands.

Please be aware that additional comments may arise with the submittal of the requested revisions and/or additional information.

RECOMMENDATION

We recommend approval of the PUD Development Plan, conditional upon all of the above comments being addressed to the satisfaction of the Planning Commission. Final engineering approval is not recommended at this time due to the number and nature of the comments.

The comments are not to be constructed as approvals and are not necessarily conclusive. The final engineering plans for this development are to be prepared in accordance with the Plymouth Township Engineering Design Standards and 2021 Plymouth Township Standard Details. Sanitary sewer and water benefit fees may be applicable for this project.

If you have any questions regarding this matter, please contact our office at your convenience.

Sincerely,

SPALDING DEDECKER



Luisa Amici
Municipal Engineer



Adam Chludzinski
Project Engineer

cc: Patrick Fellrath, Director of Public Utilities, Charter Township of Plymouth (via Email)
Carol Martin, Office Manager, Charter Township of Plymouth (via Email)

Encl: Traffic Review Memo

MEMORANDUM

DATE: 5/30/2023

TO: The Planning Commission

ORGANIZATION NAME: Plymouth Charter Township

FROM: Spalding DeDecker

RE: Northville Downs at Plymouth Township Traffic Review

JOB NO.: PL23104

A horse racetrack is proposed in Plymouth Township located at the southwest quadrant of Five Mile Road and Ridge Road. A traffic study comparing the trip generation of the horse racetrack to a previously proposed land use for an industrial park and manufacturing facility. Additionally, a 2021 traffic study performed by OHM for a research & development land use.

It is assumed that timing for events at the horse racetrack will not coincide with the standard 4:00pm to 6:00pm weekday commuter peak hour with most trips generated during non-peak hour times. Given the limited data available for the ITE horse racetrack land use (land use code 452), with only one point of data available, it is also assumed that the trip generation numbers calculated for the proposed 480 seat development follows a direct linear correlation to the trip generation patterns characteristic of the single data point. From this assumption it was provided that the total trips generated from the proposed horse racetrack is calculated to be 11% of the total number of seats provided, which equated to 53 total trips. The number of available seats is the independent variable used for this ITE land use code. This is a reasonable assumption to predict trips generated for this development type.

The traffic study does not provide a comparison of morning trips generated due to the lack of data available for horse racetracks during AM peak hours. It can be reasonably assumed based on the nature of the land use that operations at the proposed horse racetrack will generate little to no trips during the morning peak hour.

The information that has been provided with the traffic study demonstrate, with reasonable assumptions and analysis, that the impact on traffic from the proposed horse racetrack fall below the land uses that have been previously considered for this location. It can be concluded that the proposed development will not have a significant impact on current traffic conditions on Ridge Road and Five Mile Road.



Sincerely,

SPALDING DEDECKER

Kyle Basset, P.E
Project Manager

Attachments:

None



At

Plymouth Township

TRAFFIC MANAGEMENT PLAN

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Purpose

Northville Downs experiences different traffic levels depending on the type of event. This plan describes the various loading scenarios, and how each is handled.

Standard Daily Traffic

On non-live racing days, the facility operates as a simulcast venue, where customers will mostly be inside the Racing Building. Patrons enter and exit the site from Techne Drive, and park in the paved parking area adjacent to the racing building. Traffic loads are typically lightest on these days.

Live Race Day Traffic

On live racing days, activities are concentrated around the outdoor track. Customers and racing teams will both enter and exit from Techne Drive. Customers will park in the paved parking area and in the overflow lot as needed. Racing teams will unload and park in the gravel lot in front of the barn.

Passenger Vehicle Drop Off

Customer drop-off and pick-up are available under the awing in front of the main entrance.

Bus Service

Groups can arrange for bus parking at the venue. Buses enter and exit via Techne Drive, pulling around behind the Racing building to turn around and then dropping off passengers just outside the main entrance canopy. Parking for up to 4 buses can be accommodated in the exit lane on Techne Drive outside the barn. Temporary signage is implemented as needed to direct passenger vehicles around the bus loading and parking areas on Techne Drive.

Large Events

During large events, additional parking control measures may be employed. Special temporary parking in lawn areas can be defined using temporary signage and traffic cones. Staff will be deployed as necessary around the site to direct customers to overflow parking areas, and to direct traffic towards the exit during mass egress after large events.

NDAPT coordinates with Plymouth Township Police for traffic direction on the public roads. Police handle any necessary temporary controls emplaced on the adjacent roadways, while NDAPT staff handle onsite traffic direction.

For very large events, Techne Drive is temporarily converted to exit only for Northbound

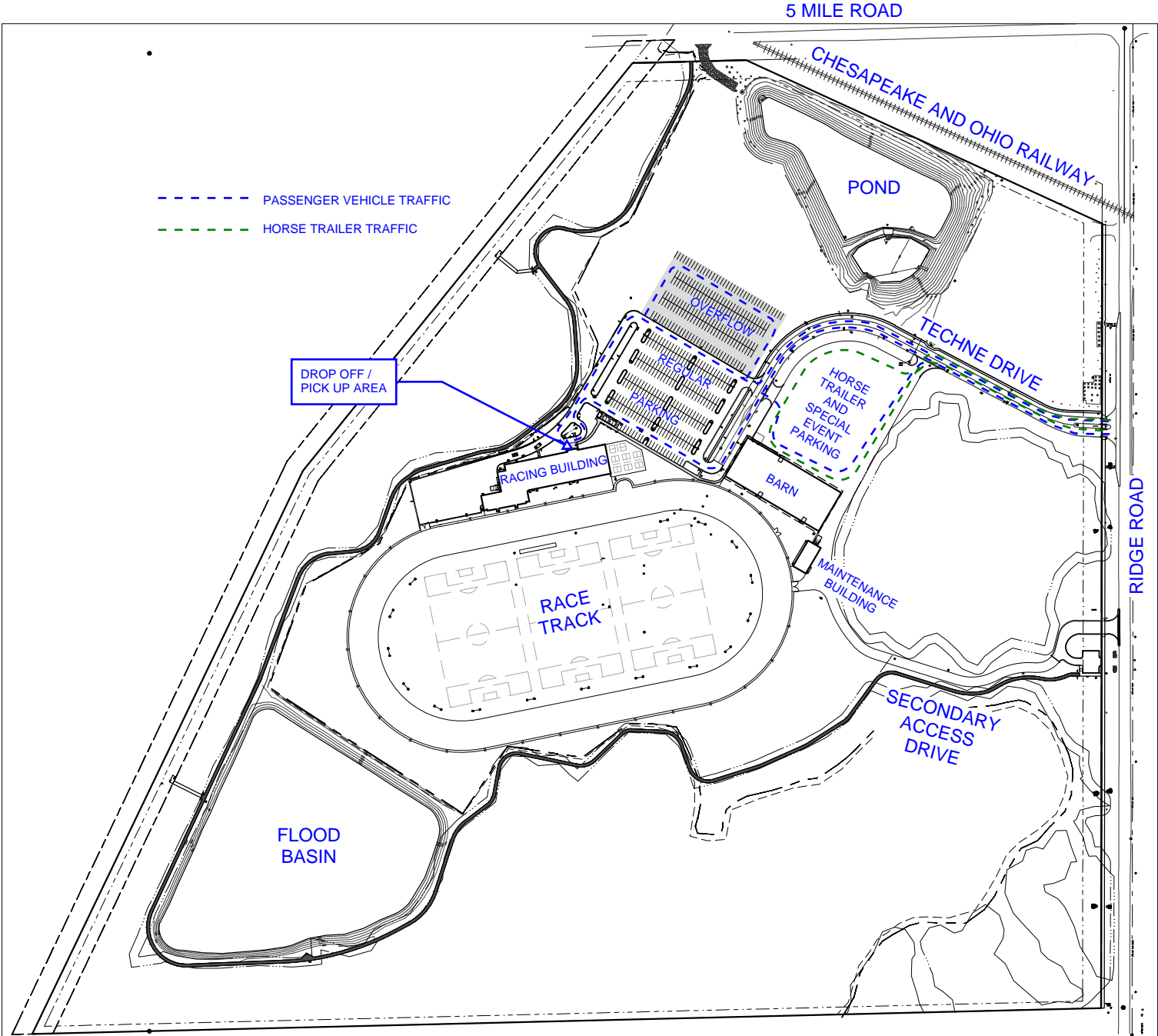
traffic, and the secondary entrance will serve as exit only for southbound traffic.

Emergency Access Management

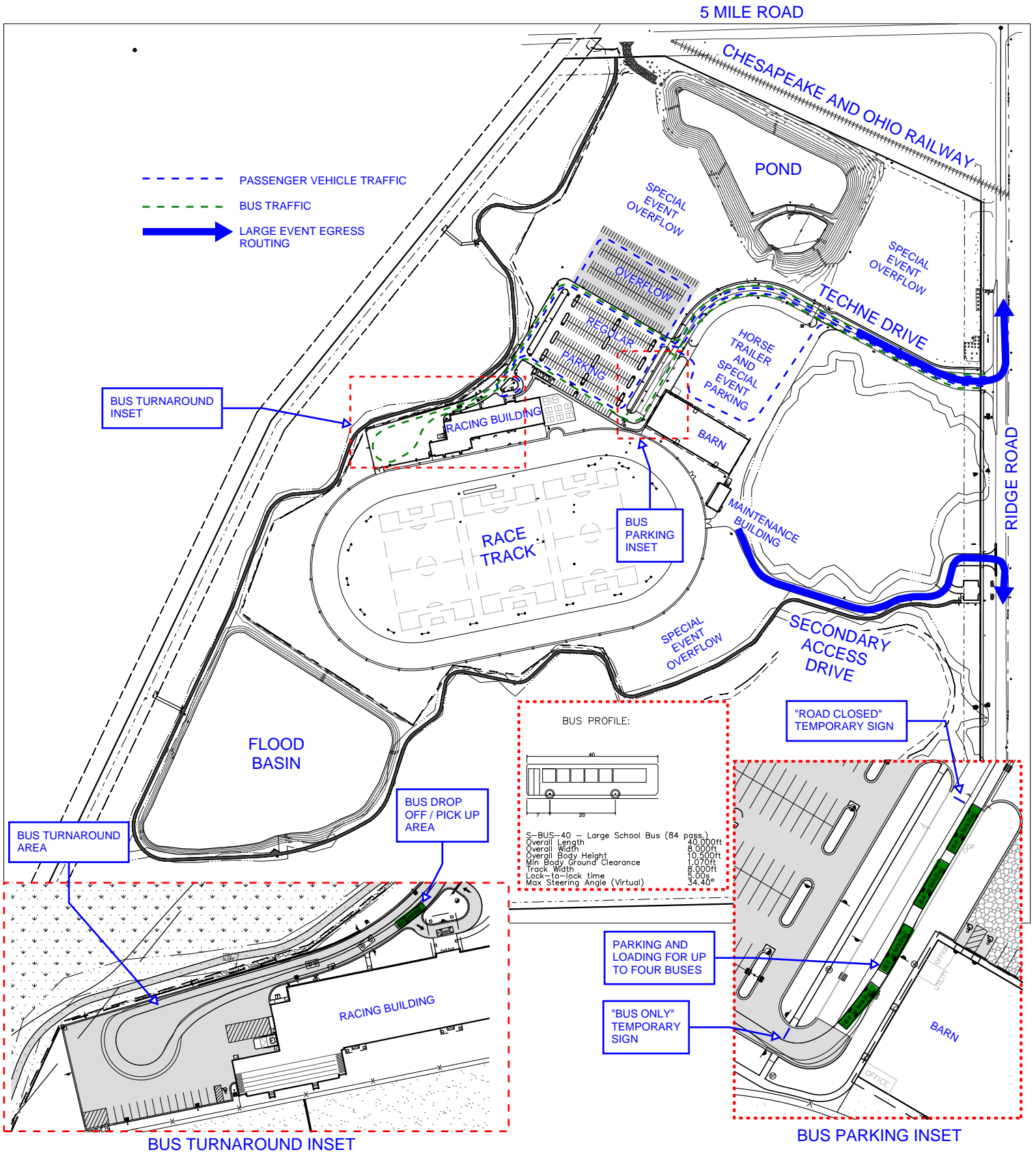
When an emergency occurs requiring fire trucks or other emergency response vehicles to be able to quickly access the site, staff will be informed, and will immediately open the appropriate emergency management gates to provide access. Emergency vehicles will be able to access all areas of the site by entering via Techne drive, then passing around the racing building and through an emergency access gate onto the harness racing track. They can proceed around the track to the access gate at the southeast corner of the track and exit through the secondary entrance.

During an evacuation event, staff will immediately open all emergency management gates across the site and ensure they are locked in the open position. Staff will then assist directing customer vehicles to exit the venue quickly and safely.

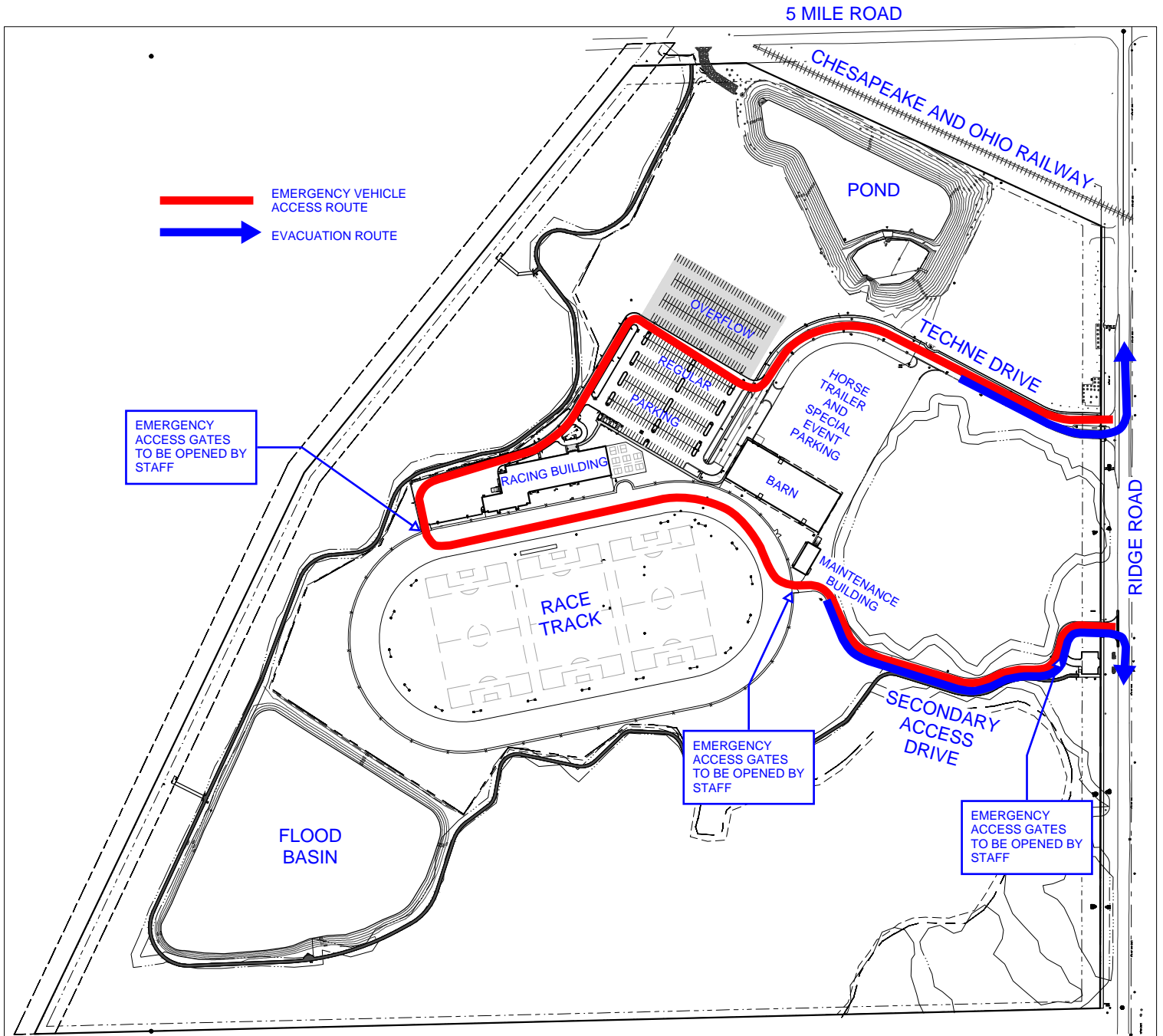
STANDARD OPERATION AND RACE DAY TRAFFIC PATTERNS



SPECIAL EVENT TRAFFIC PATTERNS



EMERGENCY MANAGEMENT ACCESS AND EVACUATION PATTERNS



FIRE TRUCK PROFILE:

Pumper Fire Truck	40.000ft
Overall Length	8.167ft
Overall Width	7.745ft
Overall Body Height	0.656ft
Min. Body ground Clearance	8.167ft
Track Width	5.000ft
Lock-to-lock time	45.00°
Max Wheel Angle	



At

Plymouth Township

WASTE MANAGEMENT PLAN

Draft Print

05/18/2023 2:36:23 PM

Purpose

Northville Downs generates solid and liquid waste as part of normal daily facility operations. A determination is conducted on all waste to identify the proper disposal routes for the protection of the environment and compliance with Federal, State, and local regulation. All regulated waste is disposed of by an authorized service provider.

Scope

This Waste Disposal Management Plan (WDMP) addresses the disposal of regulated and non-regulated waste generated and disposed of by Northville Downs. The plan provides procedures and practices for universal waste, used oil, and animal waste. The plan also provides a training outline for employees in waste handling. The WDMP applies to race day, non-race day, and special event operations, and is intended to serve as general guidance on the minimum requirements for waste disposal.

General Waste Streams

Liquid waste – Great Lakes Water Authority (GLWA) is the Publicly Owned Treatment Works (POTW) for Plymouth and has restrictions for what can and what cannot go down the drain (refer to GLWA Rules Chapter 4). The disposal of products down sinks and toilets must comply with the guidelines set forth in the GLWA ordinance. Normal biological waste from bathrooms and food preparation wastewater can go down the drain (sanitary sewer).

Solid trash – Non-hazardous solid waste such as food scraps, contaminated or waxed cardboard, cellophane or plastic wrap or plastic bags, glass, lumber, incandescent lamps, plastics, and dried (hardened) water-based paint materials can be discarded as regular solid waste for disposal in landfill. Containers with small amounts (<3% by volume) of residual oil-based paint can also be hardened and discarded as regular solid waste for disposal in landfill.

NOTE: Use trash receptacles in and around on-site buildings or the waste dumpsters, located to the rear of the main building, and adjacent to the maintenance building for this type of non-regulated solid waste.

The trash dumpster is emptied on a weekly basis during normal operation. Additional removals are ordered as necessary for large events.

Special Waste

Northville Downs generates a classification of waste referred to as “Special Waste”. This waste is any waste that does not fall under any of the previous categories but requires special handling and disposal because of its quantity, concentration, physical or chemical characteristics, or biological properties.

Kitchen Grease Tank

Northville Downs utilizes a 200-gal grease tank to store kitchen grease. The tank is double walled with an appropriate interstitial area to serve as secondary containment. The tank is serviced as needed when reaching capacity by an authorized service provider.

Animal Waste

Due to the presence of horses in and around the barn, paddock, and racetrack areas on live race days, a certain amount of animal waste in the form of horse manure is generated on site, which requires special collection, storage and disposal requirements. Most animals evacuate their systems within the barn stalls either before or after a race, however smaller amounts get deposited in the paddock and racetrack areas. Small amounts may also be deposited in the gravel parking lot in front of the barn during loading and unloading operations, as well. Horses are restricted to these areas only, so no deposits occur anywhere else on the site.

All horse manure generated during a racing day both within and without the barn is collected and stored in lidded containers within 24 hours after each event. These containers are emptied into a dumpster located next to the maintenance shed. The dumpster is fitted with a cover to limit flies and pests, as well as prevent buildup of rainwater within the container that might result in leachate leaking out and seeping into the ground. Manure dumpsters are emptied on a weekly basis during the race season by a licensed hauler.

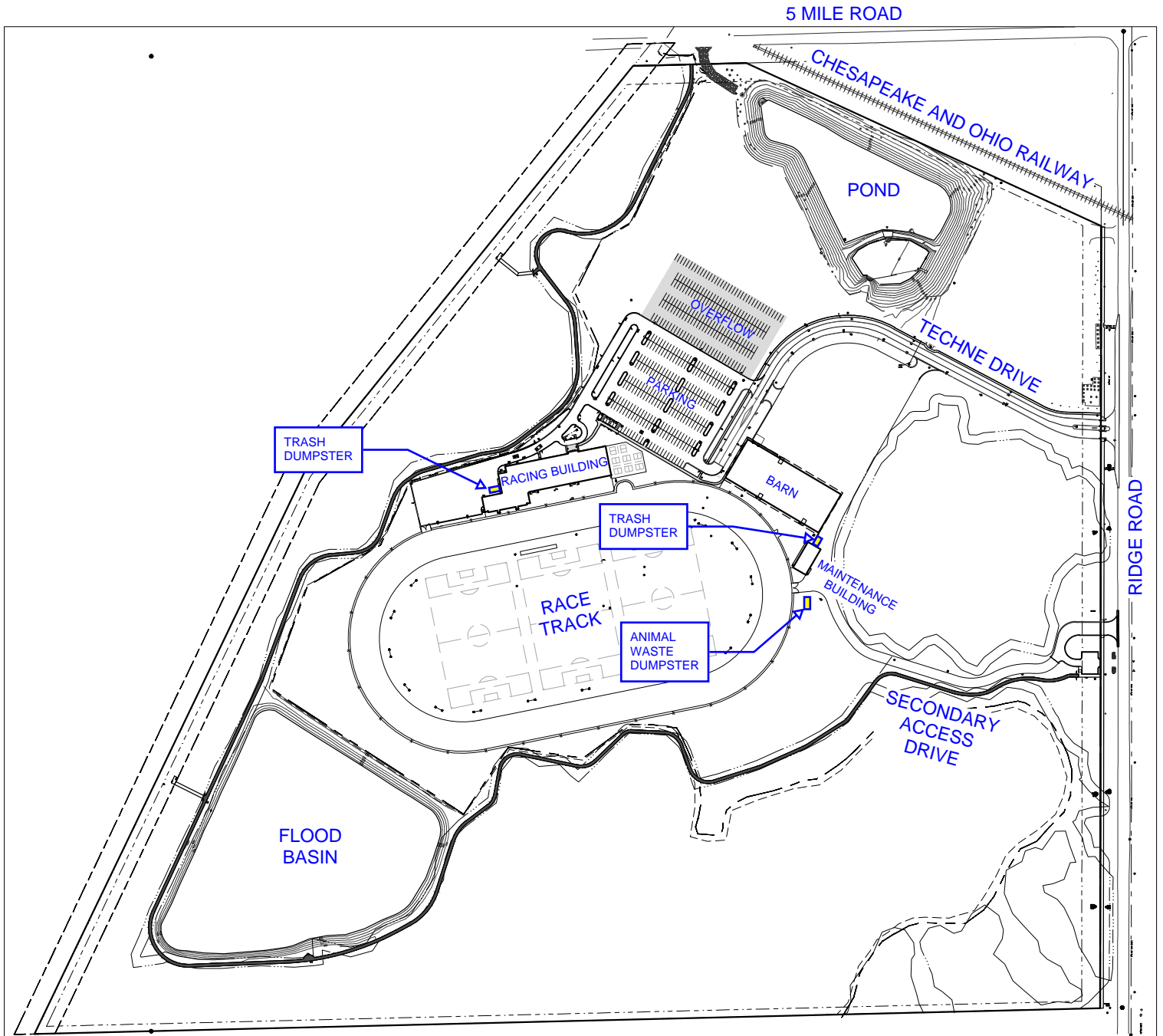
All horse stalls are mucked out and hosed down after each race event. The wash water is greywater pumped in from the detention pond (no potable water is used for washdown), and each stall is equipped with a floor drain that tie into the site sanitary piping network.

The small residual amounts of manure and urine which seep into the ground in the areas around the barn, paddock, and racetrack seep into the aggregate and subbase, where they are broken down by naturally occurring bacteria and treated as part of the natural hydrologic cycle.

Hazardous waste

All medical waste generated during equine care at Northville Downs is the responsibility of the attending veterinarians for removal and proper disposal. In no case should Northville Downs staff handle or dispose of medical waste.

WASTE MANAGEMENT PLAN



Memo

TO: Bill Hibbard – Militello Property Group

FROM: Brandon Hayes, PE, P.Eng., PTOE

DATE: February 28, 2023 **PROJECT NO.:** 23XXXX

RE: Northville Downs at Plymouth Township Traffic Review

Dear Bill:

Pursuant to your request, Fishbeck has completed a Trip Generation Analysis and Traffic Data Review Letter for a proposed horse racetrack development, generally located in the southwest quadrant of Five Mile Road and Ridge Road in Plymouth Township (Township), MI. This review and analysis are intended to give you, Northville Downs, Plymouth Township, and the Wayne County Department of Public Services (WCDPS) information regarding the difference in trip generation when comparing your proposed development with the trip generation potential of a previously-proposed industrial park development, and to provide the above stakeholders with relevant historical traffic data available at and/or near the proposed development. The analysis and review will also summarize the traffic engineering and transportation planning information provided by the Township in the OHM report titled “5 Mile Road Corridor Study”.

The information provided for use in this analysis indicates the following land use types and development magnitudes:

- Proposed Racetrack Grandstand – 27,932 square feet (SF).
- Proposed Racetrack Racing Barn – 35,477 SF.
- Proposed Racetrack Maintenance Building – 3,200 SF.
- Total Building Area – 66,609 SF.
- Proposed Racetrack Patron Seats – 480 seats.
- Proposed Racetrack Parking Spaces – 227 spaces (plus 200 special event overflow spaces).

Additional information provided for use in this analysis indicates that the following detailed land use and development magnitudes had previously been proposed for the site:

- Proposed Industrial Park / Manufacturing facilities – 296,323 SF and 200,946 SF totaling 497,269 SF.

Historical Traffic Data

Fishbeck reviewed several sources of historical traffic data to assess growth trends on area roadways:

- OHM report “5 Mile Road Corridor Study”, dated July 2021.
- Michigan Department of Transportation (MDOT) Transportation Data Management System (TDMS).
- Southeast Michigan Council of Governments (SEMCOG) Traffic Count Database System (TCDS).

The following historical traffic data was available within these sources:

Source	Data Type	Location	Time Domain	Beginning Date
OHM	Intersection Turning Movement Count (TMC)	5 Mile Road and Ridge Road	24 Consecutive Hours	Tuesday, March 3, 2020
MDOT	Corridor	5 Mile Road West of Ridge Road	24 Consecutive Hours	Tuesday, May 2, 2017
SEMCOG	<i>Available Data Greater than 15 Years Old</i>			

The available sources of historical data are attached to this letter. The intersection of 5 Mile Road and Ridge Road is a four-way stop-controlled intersection and generally processes low traffic volumes during the roadway peak hours, as evidenced in the OHM report. The report identified some moderate existing delays on the eastbound approach at this unsignalized intersection (34 seconds of delay graded at LOS D). Based on the area-wide traffic projections shown in the report, this intersection will eventually require traffic control improvements by the 2040 horizon analysis year. Both the installation of a traffic control signal and the construction of a roundabout were indicated to be acceptable mitigation methods. In addition, a widened three-lane Class A roadway cross-section along 5 Mile Road from Napier Road to Beck Road was recommended in the report. These improvements will increase the capacity of the area road network to facilitate future traffic demands.

Trip Generation Analysis

To assess the impacts of the proposed development density as compared to the previously-proposed manufacturing use, Fishbeck utilized the information published in the Trip Generation 11th Edition (latest edition), published by the Institute of Transportation Engineers (ITE) and calculated the trip forecasts indicated in the table below for comparison. It should be noted that ITE Land Use Code (LUC) 452: Horse Racetrack is based on only a single study and caution/judgement should be applied when using it. Nevertheless, it is provided in the table below for comparison purposes. It should also be noted that no published data is available for the AM peak hour at a horse racetrack facility; therefore, no AM peak hour comparison can be completed at this time. In addition, the PM peak hour of the vehicle traffic generator facility is available for LUC 452; this may provide a better projection of late-evening event traffic (outside of the typical PM adjacent street traffic peak between 4:00 p.m. and 6:00 p.m.).

ITE Land Use	Land Use Code	Units	Peak of Adjacent Street			Peak of Generator			Weekday			
			AM Peak Hour			PM Peak Hour						
			In	Out	Total	In	Out	Total				
Proposed Development												
Horse Racetrack	452	480 Seats	<i>Data Not Available</i>			19	10	29	48	5	53	288
Previously-Proposed Development												
Manufacturing	140	497,269 SF	238	75	313	129	286	415	153	211	364	2,077
Difference			-	-	-	+110	+276	+386	+105	+206	+311	+1789

When comparing the two uses, LUC 452: Horse Racetrack is expected to generate significantly less vehicle trips during each of the three analysis periods (PM Peak Hour of Adjacent Street, PM Peak Hour of Traffic Generator, and Total Weekday) when compared against the previously-proposed manufacturing use (LUC 140: Manufacturing). As indicated by the table above, the manufacturing use would be expected to generate 386 additional PM Peak Hour (Adjacent Street) vehicle trips (110 inbound and 276 outbound), 311 additional PM Peak Hour (Traffic Generator) vehicle trips (105 inbound and 206 outbound), and 1,789 additional total weekday vehicle trips.

In addition, the “5 Mile Road Corridor Study” identifies the site of the proposed Northville Downs at Plymouth Township as *Parcel 11* in the Trip Generation and Distribution section of the report. The following vehicle trip-generating characteristics were assumed for the proposed Northville Downs site based on that report:

ITE Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<i>Trip Generation Analysis from "5 Mile Road Corridor Study"</i>								
Research & Development	760	291,000 SF	92	30	122	21	122	143

The above analyses are based on the best data available to Fishbeck at this time. The analyses herein have used this data with traffic engineering best practices and standard vehicle trip generation methodology to compare the anticipated vehicle trip generation potential of the proposed Northville Downs at Plymouth Township development against the previously-proposed manufacturing site and the assumed Research & Development use from the "5 Mile Road Corridor Study". Based on the results of this comparison, it is anticipated that the proposed Northville Downs at Plymouth Township racetrack site will generate fewer vehicle trips than either of the other two former assumed uses.

If you have any questions or require additional information, please contact me at 734.888.2853 or bhayes@fishbeck.com.

Sincerely,



Brandon Hayes, PE, P.Eng., PTOE
 Senior Traffic Engineer/Project Manager
 Attachments
 By email

Land Use: 140

Manufacturing

Description

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions. General light industrial (Land Use 110) and industrial park (Land Use 130) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Minnesota, Missouri, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Vermont, Washington, and West Virginia.

Source Numbers

177, 179, 184, 241, 357, 384, 418, 443, 583, 598, 611, 728, 747, 875, 879, 940, 969, 1067, 1068, 1082

Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 53

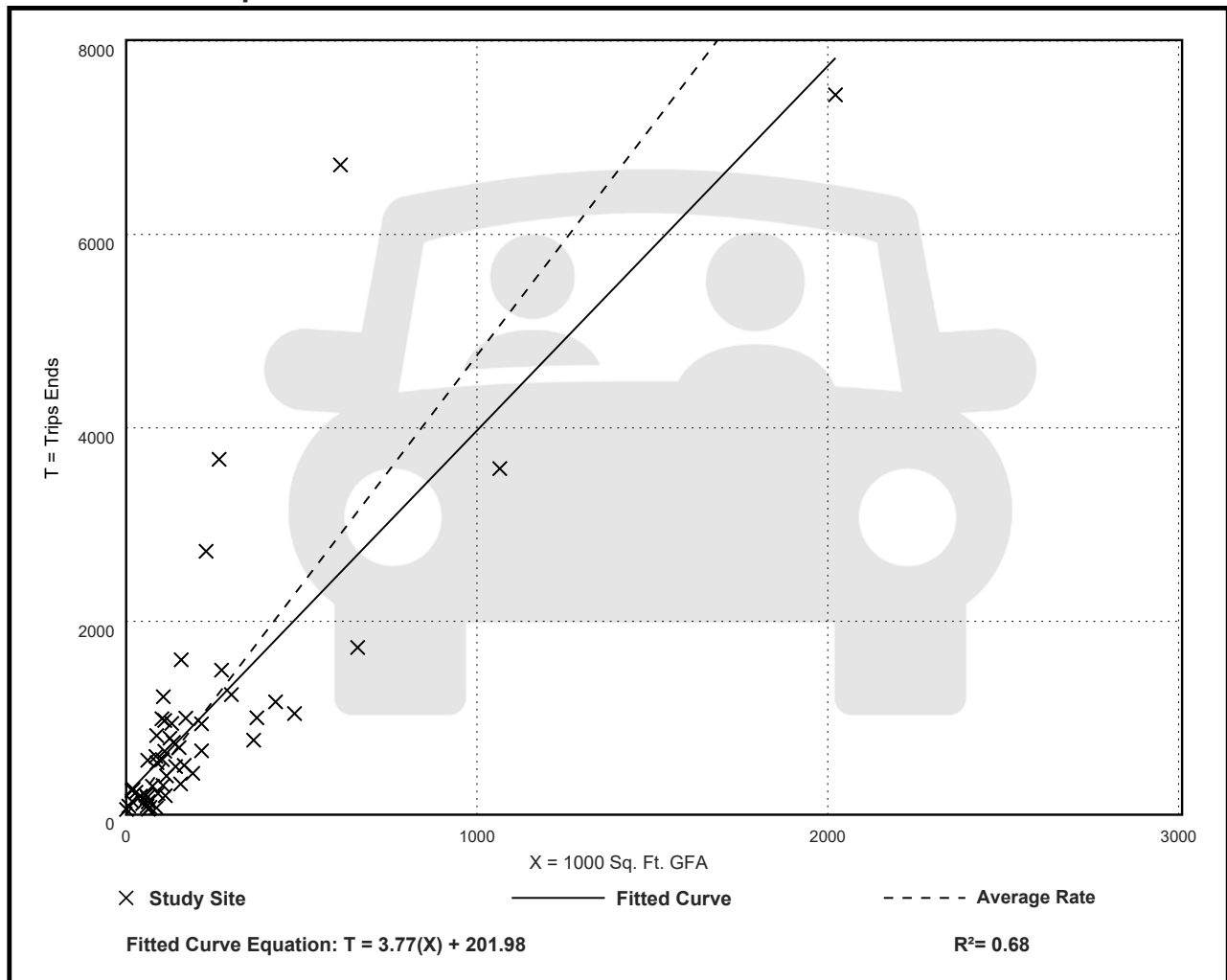
Avg. 1000 Sq. Ft. GFA: 208

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.75	0.83 - 49.50	3.20

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 48

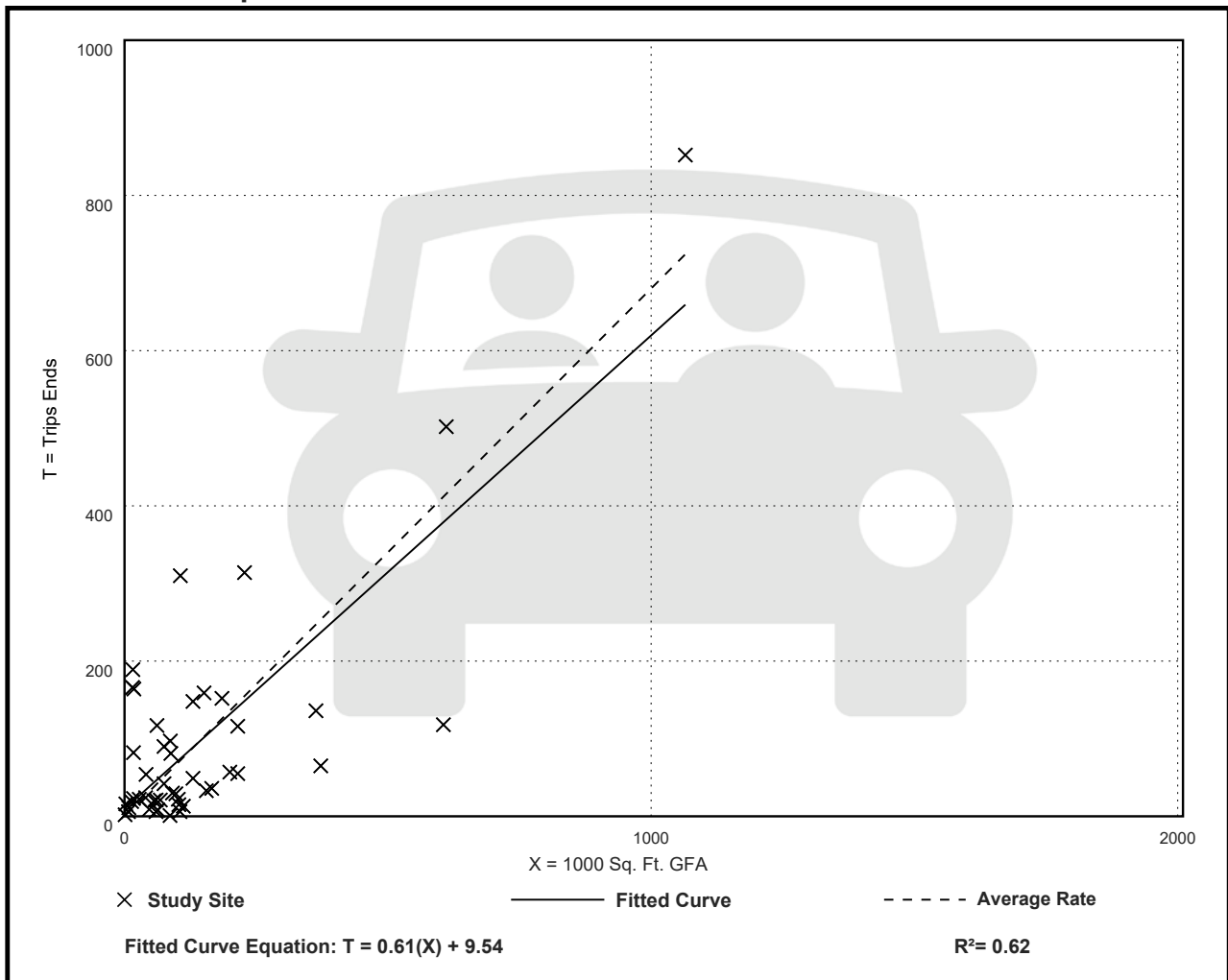
Avg. 1000 Sq. Ft. GFA: 138

Directional Distribution: 76% entering, 24% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.68	0.01 - 11.93	1.03

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 55

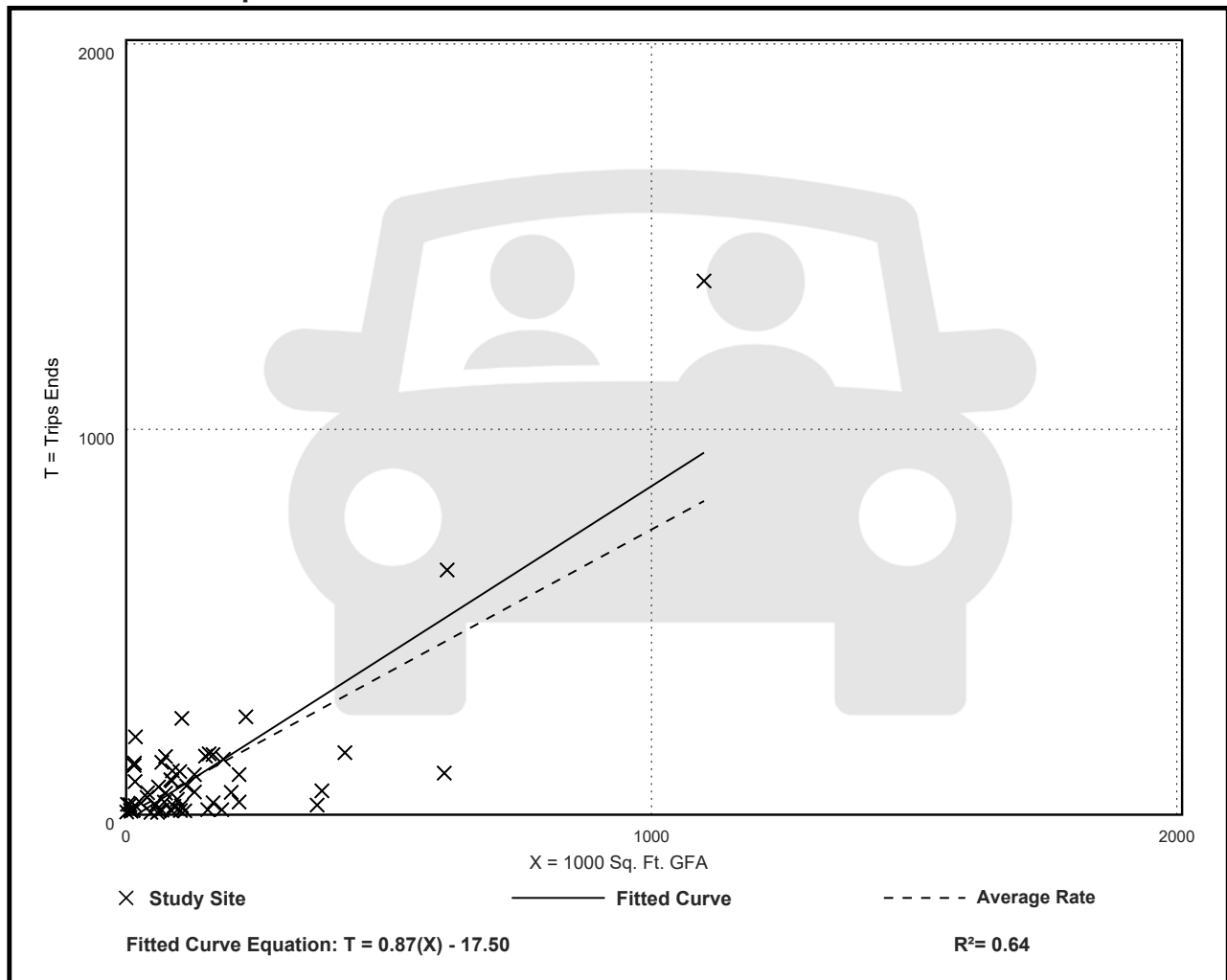
Avg. 1000 Sq. Ft. GFA: 142

Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.07 - 11.37	0.93

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 62

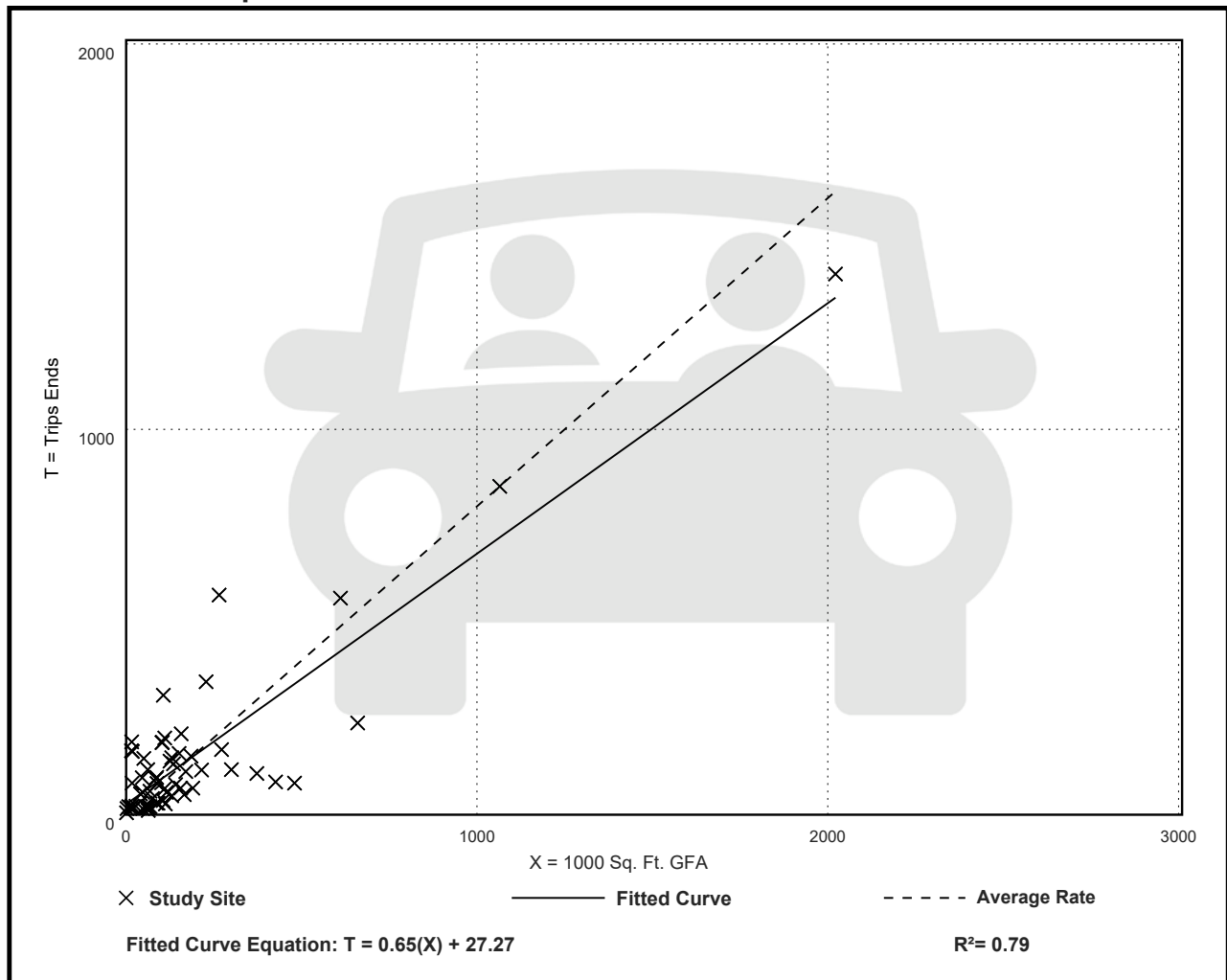
Avg. 1000 Sq. Ft. GFA: 178

Directional Distribution: 73% entering, 27% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.80	0.17 - 11.93	0.87

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

**On a: Weekday,
PM Peak Hour of Generator**

Setting/Location: General Urban/Suburban

Number of Studies: 62

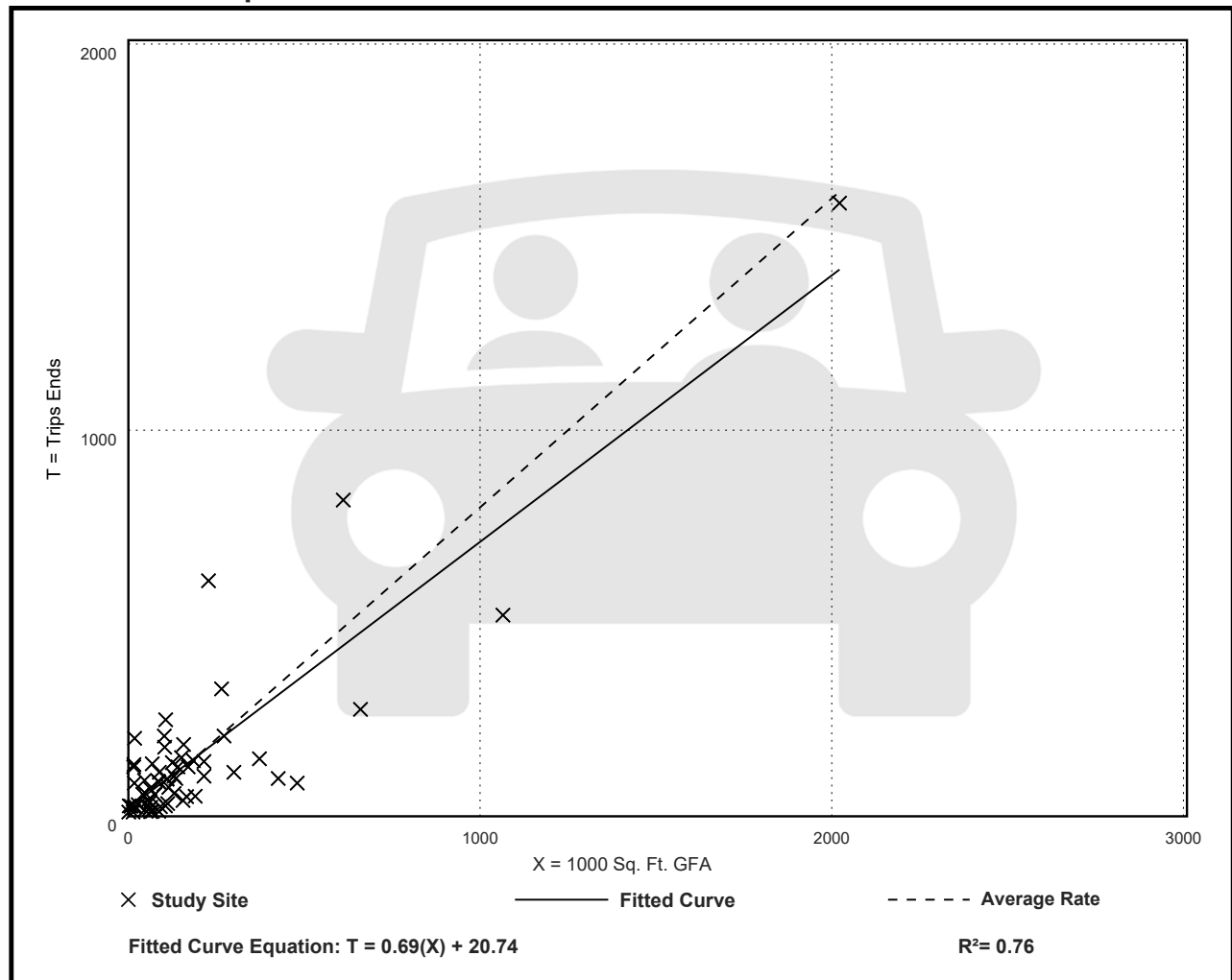
Avg. 1000 Sq. Ft. GFA: 180

Directional Distribution: 42% entering, 58% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.80	0.15 - 11.37	0.82

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 5

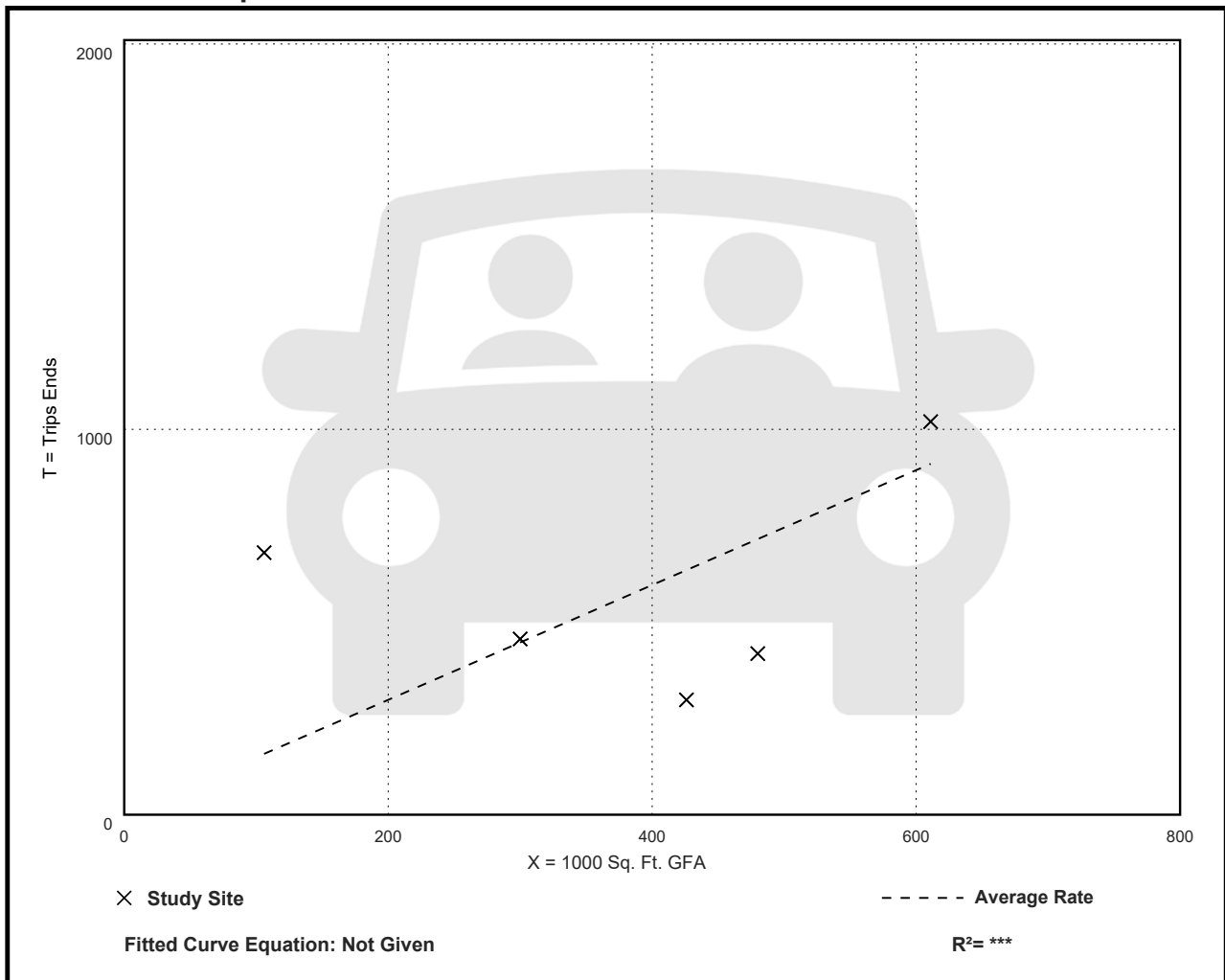
Avg. 1000 Sq. Ft. GFA: 385

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.49	0.70 - 6.42	1.41

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 5

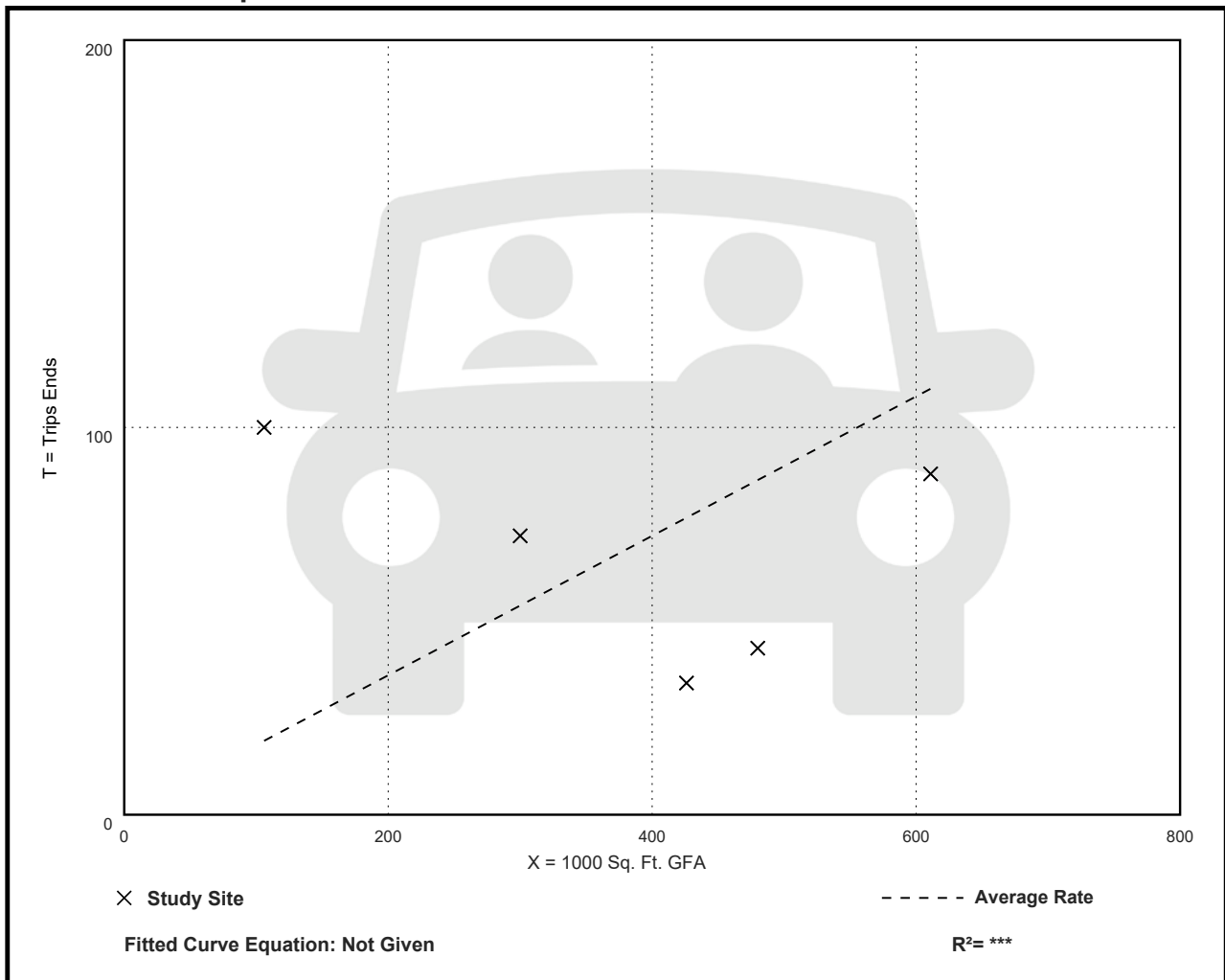
Avg. 1000 Sq. Ft. GFA: 385

Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.08 - 0.94	0.22

Data Plot and Equation



Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 5

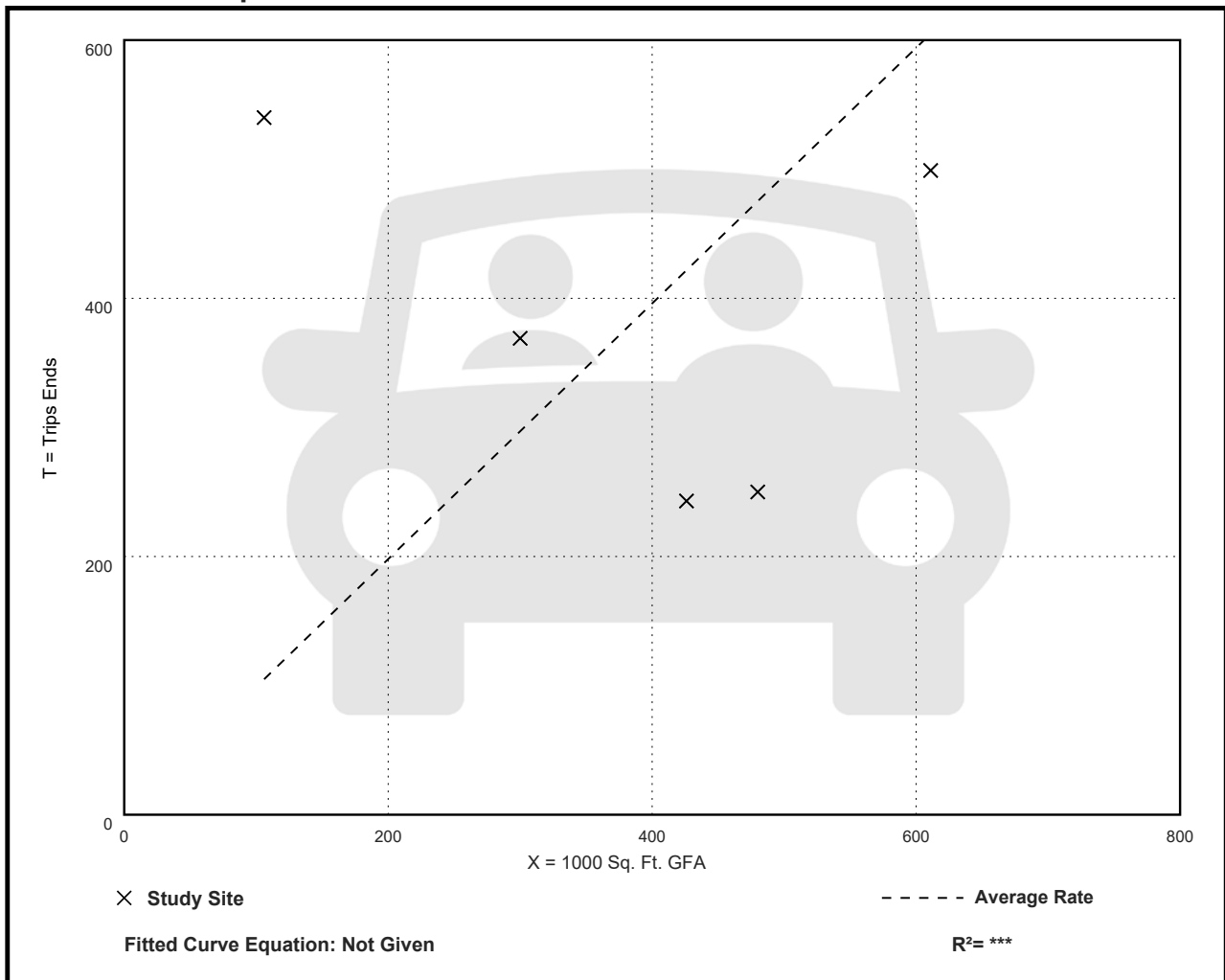
Avg. 1000 Sq. Ft. GFA: 385

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.99	0.52 - 5.09	1.14

Data Plot and Equation



Land Use: 452 Horse Racetrack

Description

A horse racetrack is a facility that is built for the racing of horses. It includes a long broad track, typically between rails and with marked starting and finishing points. The facility includes spectator seating, an area for food and refreshments, horse stables, and sometimes housing for workers.

Additional Data

The sites were surveyed in the 1990s in Maryland.

Source Number

529

Horse Racetrack (452)

Vehicle Trip Ends vs: Seats
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Seats: 3000

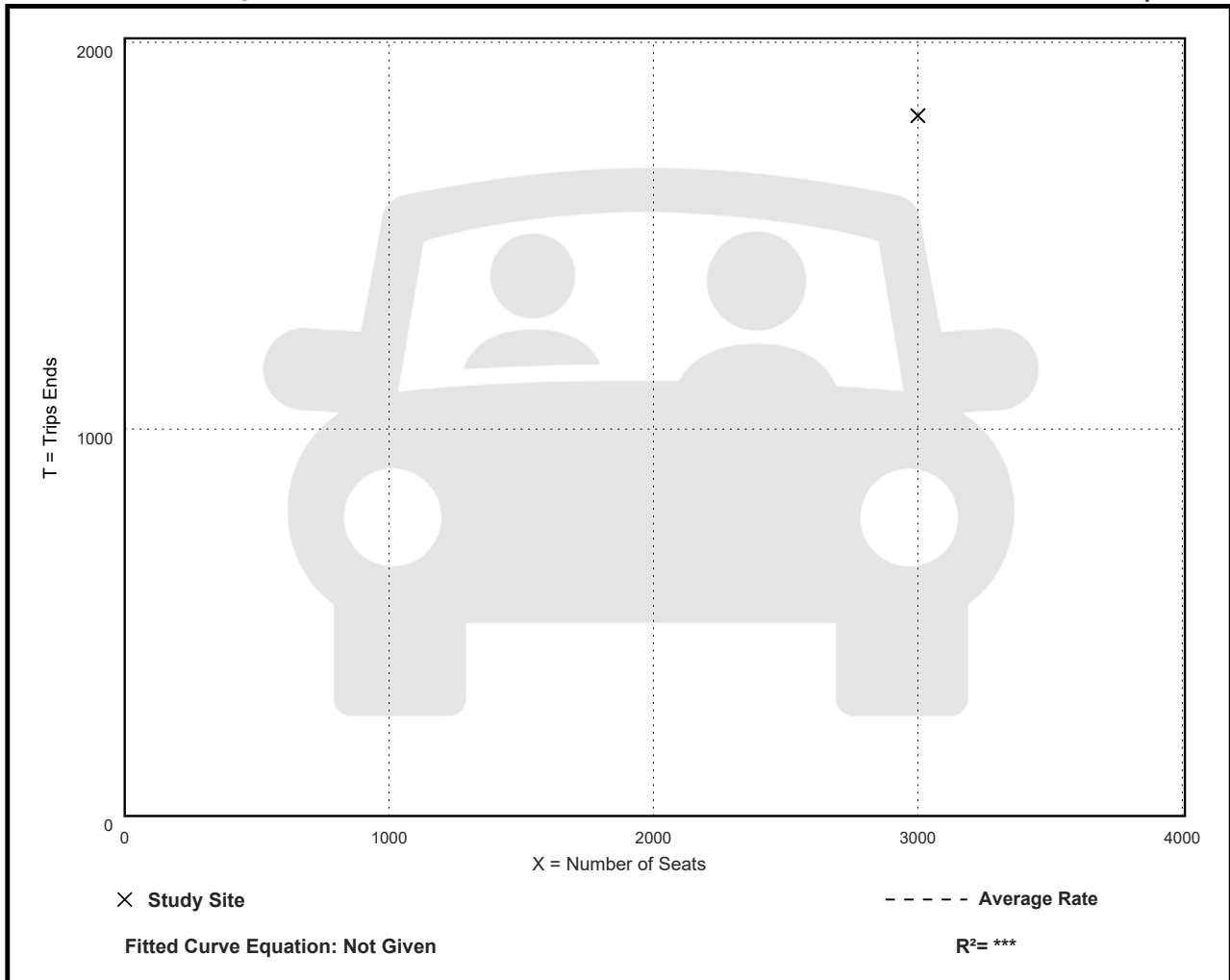
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.60	0.60 - 0.60	***

Data Plot and Equation

Caution – Small Sample Size



Horse Racetrack (452)

Vehicle Trip Ends vs: Seats

On a: **Weekday,**

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Seats: 3000

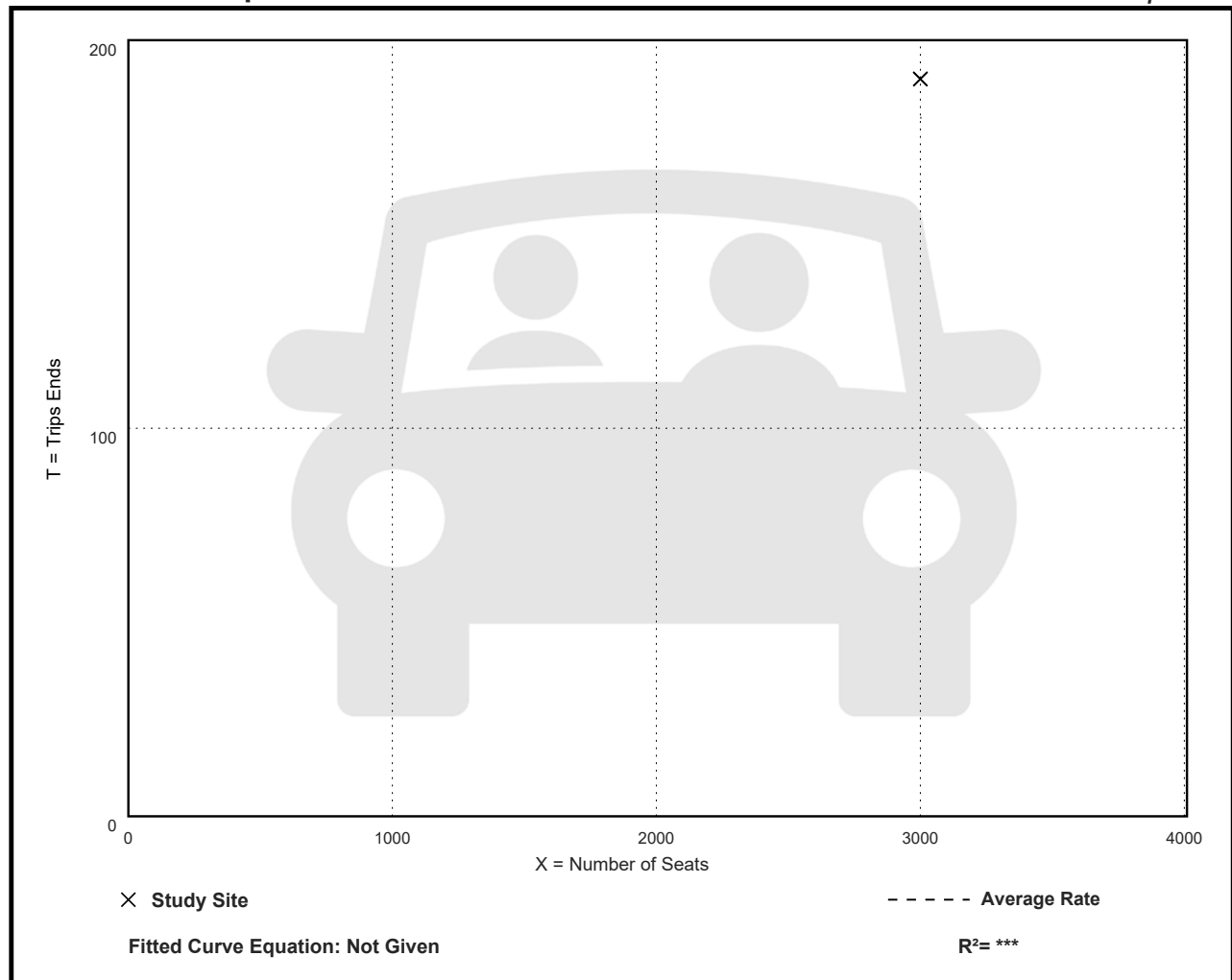
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.06	0.06 - 0.06	***

Data Plot and Equation

Caution – Small Sample Size



Horse Racetrack (452)

Vehicle Trip Ends vs: Seats

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Seats: 3000

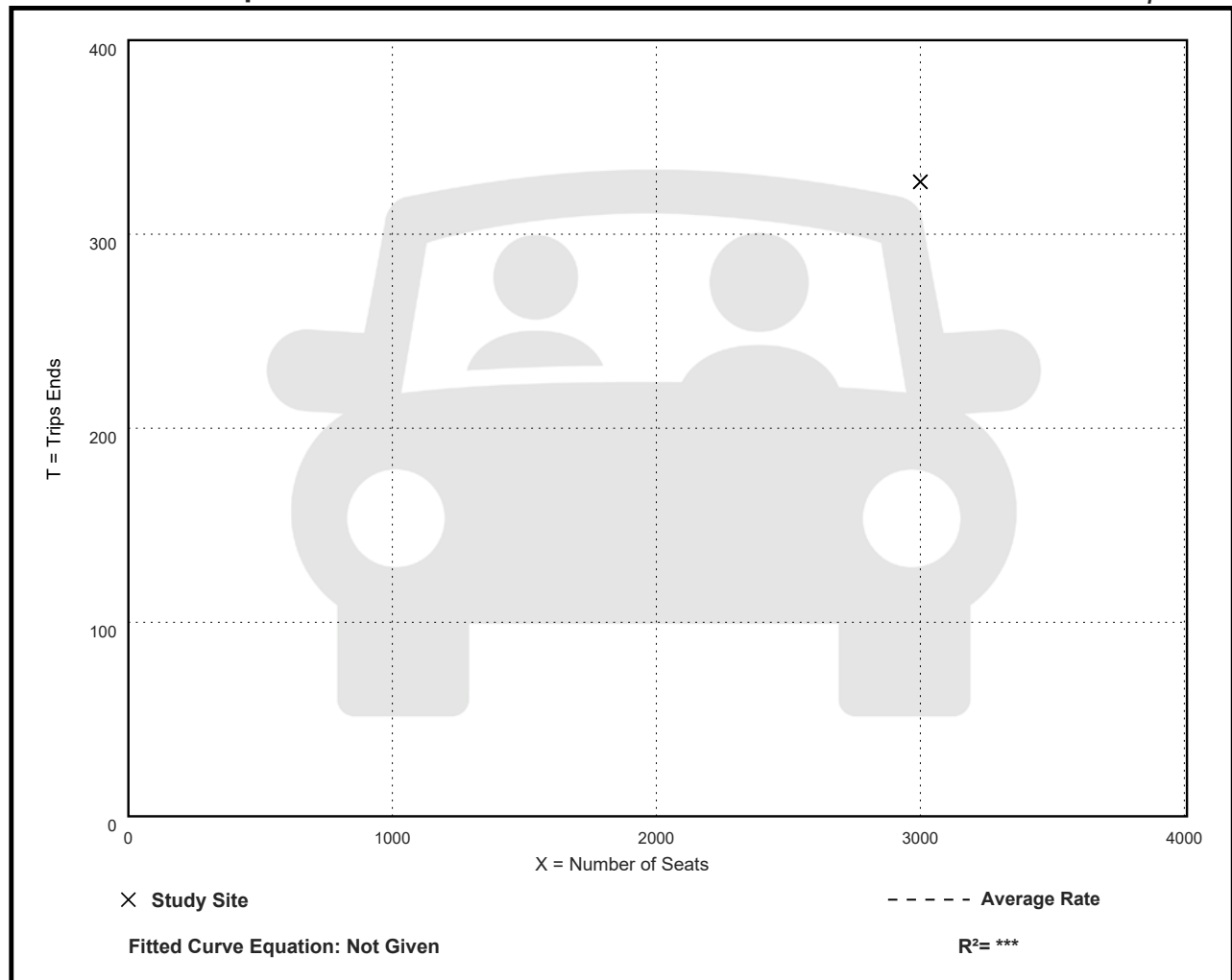
Directional Distribution: 91% entering, 9% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.11	0.11 - 0.11	***

Data Plot and Equation

Caution – Small Sample Size



Horse Racetrack (452)

Vehicle Trip Ends vs: Attendees
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Attendees: 1515

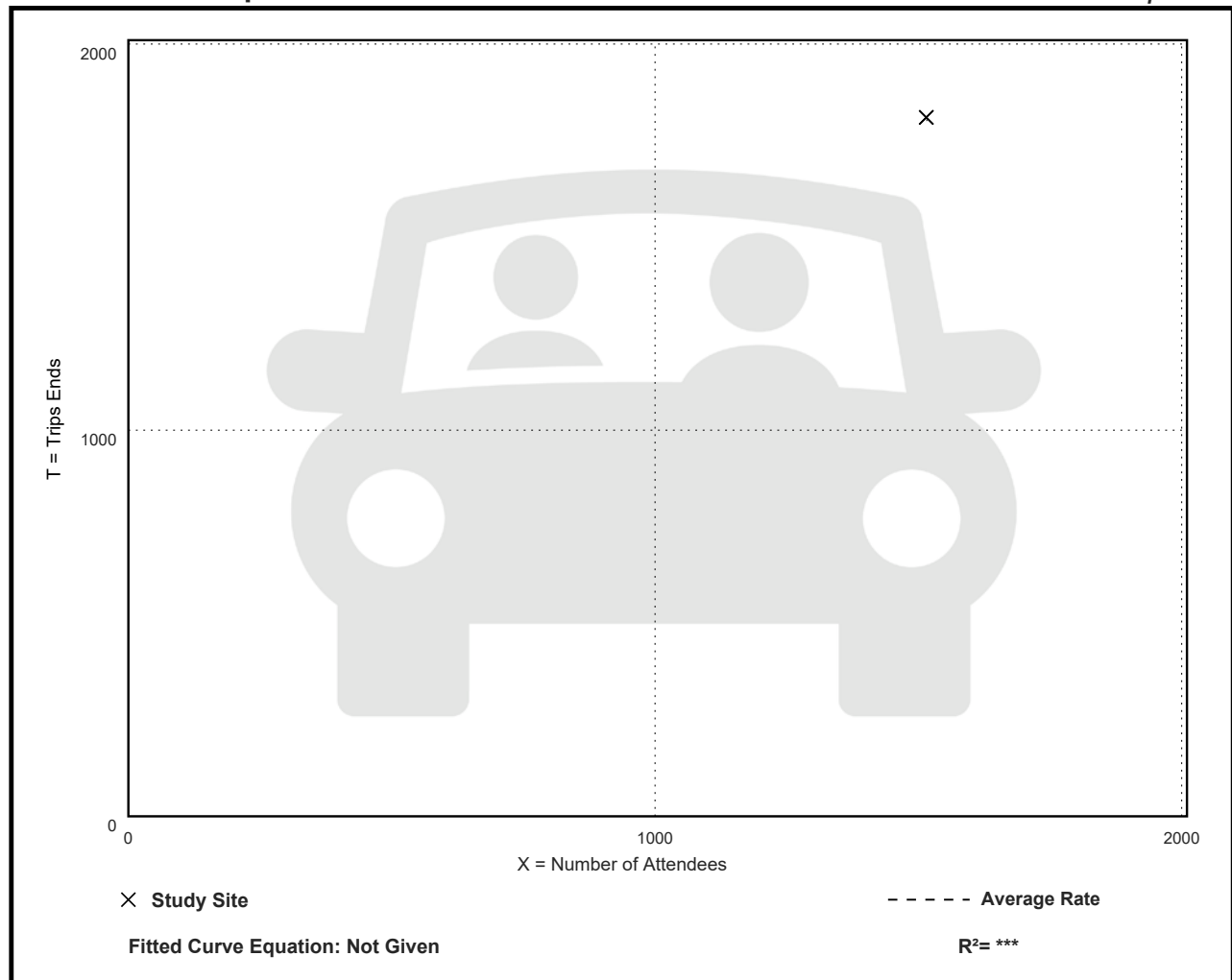
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Attendee

Average Rate	Range of Rates	Standard Deviation
1.19	1.19 - 1.19	***

Data Plot and Equation

Caution – Small Sample Size



Horse Racetrack (452)

Vehicle Trip Ends vs: Attendees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Attendees: 1515

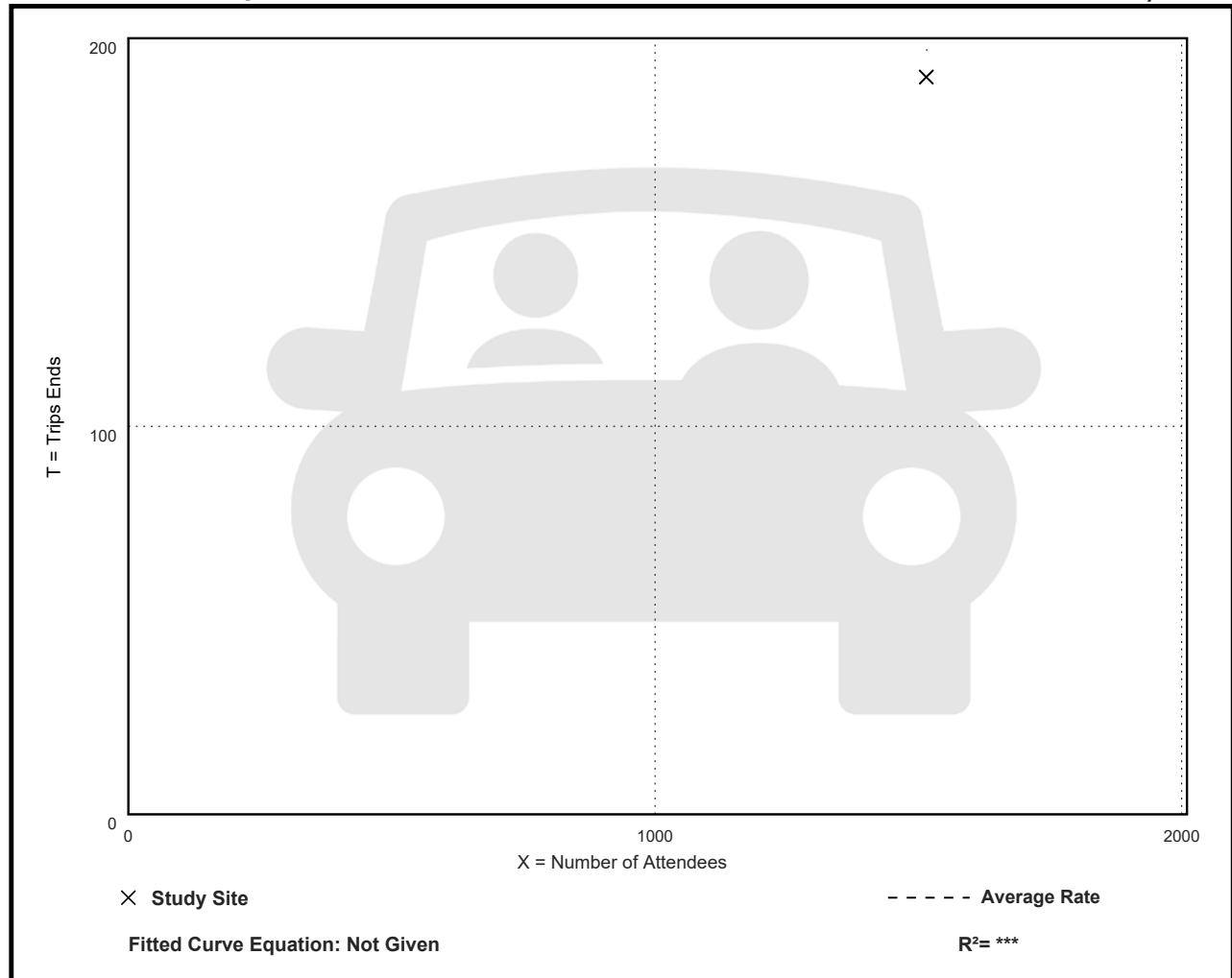
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per Attendee

Average Rate	Range of Rates	Standard Deviation
0.13	0.13 - 0.13	***

Data Plot and Equation

Caution – Small Sample Size



Horse Racetrack (452)

Vehicle Trip Ends vs: Attendees

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Attendees: 1515

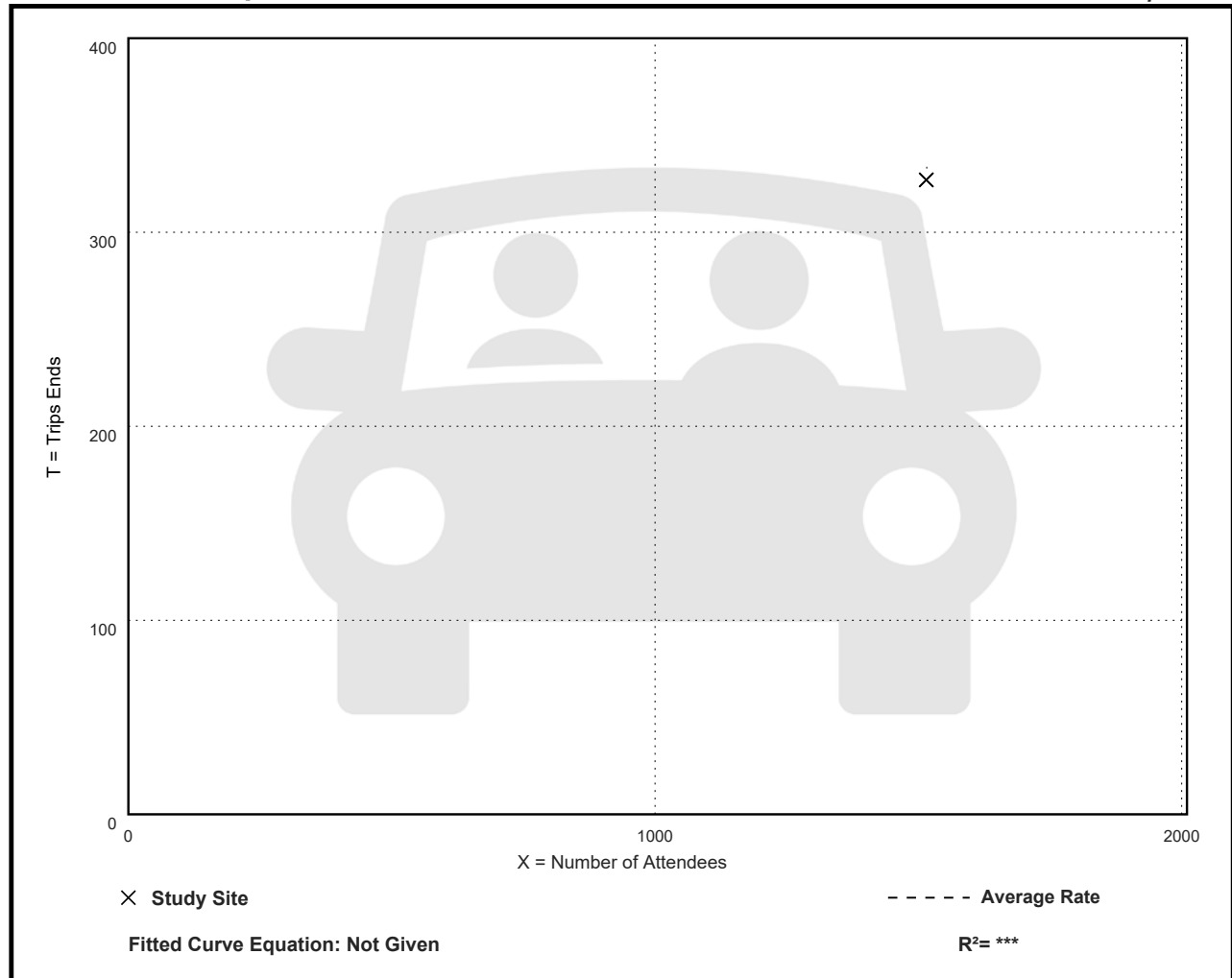
Directional Distribution: 91% entering, 9% exiting

Vehicle Trip Generation per Attendee

Average Rate	Range of Rates	Standard Deviation
0.22	0.22 - 0.22	***

Data Plot and Equation

Caution – Small Sample Size





Transportation Data Management System

Disclaimer: The Michigan Department of Transportation (MDOT) works with individual agencies (cities/villages, counties, metropolitan planning organizations (MPOs), regional planning organizations (RPOs), and other areas of MDOT) to identify existing traffic count programs and/or traffic data. [... more](#)

List View All DIRs Report Center

Record	1	of 1	Goto Record	go
Location ID	82-1100	MPO ID	49069	
Type	SPOT	HPMS ID		
On NHS	No	On HPMS	No	
LRS ID	1708705	LRS Loc Pt.	1.01	
SF Group	Urban Non State	Route Type		
AF Group	NoFactor	Route		
GF Group	Urban Non State	Active	Yes	
Class Dist Grp	NTL_5	Category	Primary	
Seas Clss Grp				
WIM Group				
QC Group	Default			
Funct'l Class	(5) Major Collector	Milepost		
Located On	5 MILE RD			
Loc On Alias	Five Mile			
WEST OF	Ridge Rd			
More Detail				
STATION DATA				

Directions: 2-WAY EB WB ?

AADT ?

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2021	7,013 ³		10	76	6,585 (94%)	428 (6%)	Grown from 2020
2020	6,155 ³		10	76	5,725 (93%)	430 (7%)	Grown from 2019
2019	7,207 ³		10	76	6,919 (96%)	288 (4%)	Grown from 2018
2018	7,243 ³		10	76	7,055 (97%)	188 (3%)	Grown from 2017
2017	7,243	753	10	76	7,069 (98%)	174 (2%)	

1-5 of 6

VOLUME COUNT			
	Date	Int	Total
	Tue 5/2/2017	15	7,636
	Mon 5/1/2017	15	6,849

VOLUME TREND ?

Year	Annual Growth
2021	14%
2020	-15%
2019	0%
2018	0%
2017	1%

CLASSIFICATION			
	Date	Int	Total
No Data			

NOTES/FILES			
	Note	Date	



Transportation Data Management System

Volume Count Report

LOCATION INFO	
Location ID	82-1100
Type	SPOT
Funct'l Class	5
Located On	5 MILE RD
Loc On Alias	Five Mile
WEST OF	Ridge Rd
Direction	2-WAY
County	Wayne
Community	Northville Twp - Wayne
MPO ID	49069
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Tue 5/2/2017
End Date	Wed 5/3/2017
Start Time	6:00:00 AM
End Time	6:00:00 AM
Direction	2-WAY
Notes	
Station	4585
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	
Latitude,Longitude	

INTERVAL:15-MIN						
Time	15-min Interval				Hourly Count	
	1st	2nd	3rd	4th		
0:00-1:00	5	3	2	4	14	
1:00-2:00	1	6	4	1	12	
2:00-3:00	1	1	1	0	3	
3:00-4:00	2	4	0	1	7	
4:00-5:00	2	5	8	12	27	
5:00-6:00	23	17	37	56	133	
6:00-7:00	65	66	96	145	372	
7:00-8:00	119	176	199	221	715	
8:00-9:00	165	165	189	157	676	
9:00-10:00	112	112	109	116	449	
10:00-11:00	96	121	152	117	486	
11:00-12:00	101	126	120	101	448	
12:00-13:00	147	142	147	99	535	
13:00-14:00	151	123	118	131	523	
14:00-15:00	146	143	110	147	546	
15:00-16:00	145	102	158	129	534	
16:00-17:00	161	185	201	206	753	
17:00-18:00	230	182	180	151	743	
18:00-19:00	121	92	67	47	327	
19:00-20:00	47	38	37	28	150	
20:00-21:00	22	17	28	14	81	
21:00-22:00	18	11	12	13	54	
22:00-23:00	11	10	3	7	31	
23:00-24:00	6	3	6	2	17	
Total					7,636	
AADT					7,636	
AM Peak					07:15-08:15 761	
PM Peak					16:15-17:15 822	

Project: Traffic Counts for
 City of Northville - MITC
 Redevelopment Authority
 Corridor: 5 Mile Road
 Weather: Pt. Sunny /
 Cloudy, Dry Temp. 40
 Degree's
 Video VCU ID#: SCU8EY
 NE



Traffic Data Collection, LLC
 7504 Sawgrass Drive
 www.tdccounts.com
 Washington, Michigan, United States 48094
 Ph. (586) 786-5407
 Reliable Traffic Data

Count Name: TMC_2 Ridge
 Road & 5 Mile Road (24
 Hr.)
 Site Code: TMC_2
 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 1

Turning Movement Data

Start Time	Ridge Road (Gravel) Southbound				5 Mile Road Westbound				Ridge Road Northbound				5 Mile Road Eastbound				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total		
12:00 AM	0	0	0	0	0	2	5	7	0	0	1	1	1	3	0	0	4	12
12:15 AM	0	0	0	0	0	2	1	3	2	0	1	3	0	0	0	0	0	6
12:30 AM	0	0	0	0	1	0	1	2	0	1	0	1	0	0	0	0	0	3
12:45 AM	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	0	0	0	1	4	11	16	2	1	2	5	1	3	0	4	25	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2	
1:15 AM	0	0	0	0	0	1	1	2	0	2	0	2	0	0	0	0	4	
1:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	
1:45 AM	0	0	0	0	1	0	2	3	1	0	0	1	0	0	0	0	4	
Hourly Total	0	0	0	0	1	2	3	6	1	2	0	3	1	1	0	2	11	
2:00 AM	0	0	0	0	0	2	0	2	2	0	0	2	0	1	0	1	5	
2:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2	
2:30 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3	
2:45 AM	0	0	0	0	0	1	1	2	1	1	0	2	0	2	0	2	6	
Hourly Total	0	1	0	1	0	4	1	5	3	1	1	5	0	5	0	5	16	
3:00 AM	0	0	0	0	0	0	1	1	0	0	1	1	0	1	0	1	3	
3:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2	
3:30 AM	0	0	0	0	0	1	1	2	1	0	0	1	0	0	0	0	3	
3:45 AM	0	0	0	0	0	2	1	3	2	0	1	3	2	2	0	4	10	
Hourly Total	0	0	0	0	0	4	3	7	3	0	2	5	3	3	0	6	18	
4:00 AM	0	2	0	2	0	6	1	7	3	0	1	4	0	5	0	5	18	
4:15 AM	0	0	0	0	0	1	2	3	4	0	0	4	1	3	0	4	11	
4:30 AM	0	1	0	1	0	4	1	5	1	0	0	1	1	1	0	2	9	
4:45 AM	0	1	0	1	1	1	0	2	3	3	1	7	0	1	0	1	11	
Hourly Total	0	4	0	4	1	12	4	17	11	3	2	16	2	10	0	12	49	
5:00 AM	0	0	0	0	0	4	2	6	8	1	1	10	1	9	0	10	26	
5:15 AM	0	0	2	2	0	2	2	4	7	0	0	7	1	12	0	13	26	
5:30 AM	0	2	2	4	0	7	0	7	8	0	3	11	2	14	0	16	38	
5:45 AM	0	3	4	7	0	19	3	22	6	1	3	10	5	6	0	11	50	
Hourly Total	0	5	8	13	0	32	7	39	29	2	7	38	9	41	0	50	140	
6:00 AM	0	2	1	3	2	7	1	10	21	1	1	23	3	16	0	19	55	
6:15 AM	0	6	2	8	0	22	6	28	20	1	5	26	8	29	0	37	99	
6:30 AM	0	5	5	10	1	21	9	31	25	2	7	34	15	32	0	47	122	
6:45 AM	0	14	7	21	0	17	10	27	28	5	8	41	17	34	0	51	140	
Hourly Total	0	27	15	42	3	67	26	96	94	9	21	124	43	111	0	154	416	
7:00 AM	0	17	14	31	1	11	16	28	37	5	7	49	35	33	0	68	176	
7:15 AM	0	31	6	37	1	16	33	50	41	9	7	57	37	42	0	79	223	
7:30 AM	1	32	8	41	0	18	32	50	38	4	2	44	47	54	2	103	238	
7:45 AM	1	34	11	46	3	20	29	52	50	10	5	65	69	61	0	130	293	
Hourly Total	2	114	39	155	5	65	110	180	166	28	21	215	188	190	2	380	930	
8:00 AM	0	31	10	41	3	12	29	44	57	12	6	75	57	52	0	109	269	
8:15 AM	0	15	7	22	1	14	25	40	38	21	6	65	41	38	0	79	206	
8:30 AM	0	28	3	31	1	19	25	45	42	5	8	55	36	41	0	77	208	
8:45 AM	0	22	7	29	3	15	20	38	29	8	6	43	40	42	0	82	192	
Hourly Total	0	96	27	123	8	60	99	167	166	46	26	238	174	173	0	347	875	
9:00 AM	0	11	6	17	1	16	14	31	16	2	3	21	19	32	0	51	120	
9:15 AM	0	6	8	14	2	19	18	39	14	7	7	28	11	26	0	37	118	
9:30 AM	1	14	4	19	1	17	9	27	20	4	4	28	6	28	2	36	110	
9:45 AM	1	3	4	8	3	18	10	31	18	0	3	21	2	20	0	22	82	
Hourly Total	2	34	22	58	7	70	51	128	68	13	17	98	38	106	2	146	430	
10:00 AM	0	0	4	4	4	16	11	31	16	3	2	21	3	24	1	28	84	
10:15 AM	1	6	0	7	1	21	8	30	15	3	1	19	8	22	0	30	86	
10:30 AM	0	5	5	10	2	21	10	33	20	2	1	23	3	25	0	28	94	
10:45 AM	0	4	2	6	2	17	11	30	12	2	0	14	6	14	0	20	70	
Hourly Total	1	15	11	27	9	75	40	124	63	10	4	77	20	85	1	106	334	
11:00 AM	0	2	8	10	5	26	13	44	15	5	1	21	8	20	0	28	103	
11:15 AM	0	8	1	9	4	25	7	36	17	3	8	28	2	23	0	25	98	

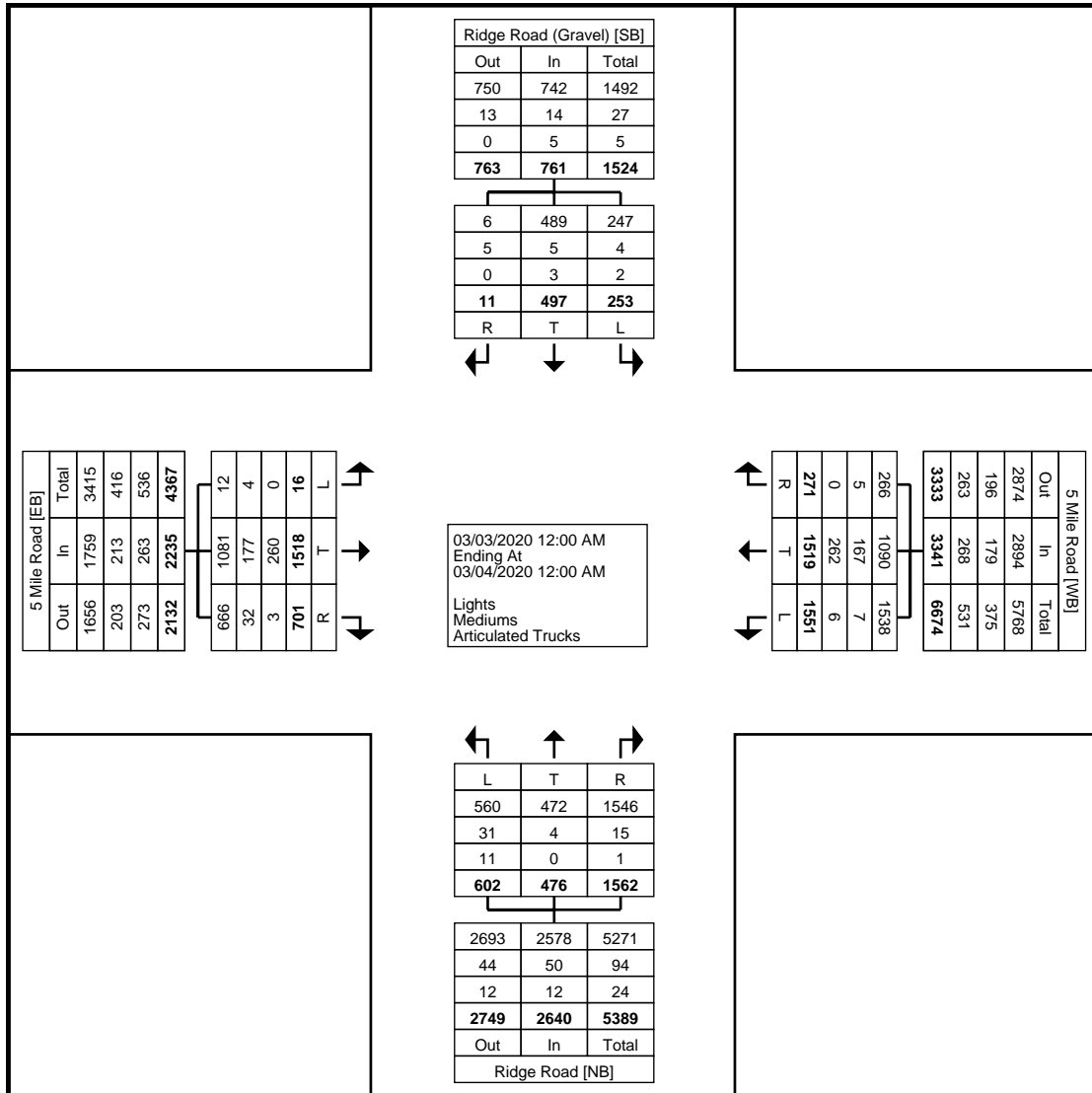
11:30 AM	0	3	5	8	1	34	16	51	27	7	4	38	2	31	0	33	130
11:45 AM	0	4	3	7	6	19	24	49	29	5	3	37	2	26	0	28	121
Hourly Total	0	17	17	34	16	104	60	180	88	20	16	124	14	100	0	114	452
12:00 PM	0	3	4	7	2	16	25	43	41	7	1	49	2	29	0	31	130
12:15 PM	0	2	3	5	2	27	25	54	22	6	3	31	2	22	0	24	114
12:30 PM	1	1	5	7	2	23	25	50	24	4	3	31	4	22	0	26	114
12:45 PM	0	11	6	17	8	24	26	58	16	1	5	22	7	25	0	32	129
Hourly Total	1	17	18	36	14	90	101	205	103	18	12	133	15	98	0	113	487
1:00 PM	0	5	1	6	4	22	24	50	23	2	1	26	3	20	1	24	106
1:15 PM	0	2	6	8	2	14	33	49	17	4	6	27	2	29	0	31	115
1:30 PM	1	6	1	8	5	18	14	37	21	10	3	34	2	23	0	25	104
1:45 PM	0	2	2	4	3	38	20	61	14	3	6	23	6	25	0	31	119
Hourly Total	1	15	10	26	14	92	91	197	75	19	16	110	13	97	1	111	444
2:00 PM	0	7	0	7	3	24	18	45	13	3	5	21	4	14	0	18	91
2:15 PM	1	4	0	5	2	25	19	46	19	6	9	34	5	13	0	18	103
2:30 PM	0	3	1	4	4	27	27	58	16	3	8	27	5	29	1	35	124
2:45 PM	1	8	3	12	1	30	30	61	24	4	4	32	5	16	1	22	127
Hourly Total	2	22	4	28	10	106	94	210	72	16	26	114	19	72	2	93	445
3:00 PM	0	6	1	7	7	33	23	63	16	3	5	24	12	35	0	47	141
3:15 PM	0	4	7	11	1	23	38	62	29	15	16	60	13	27	0	40	173
3:30 PM	0	7	0	7	11	30	37	78	29	16	26	71	6	18	0	24	180
3:45 PM	0	6	2	8	4	33	28	65	38	20	23	81	8	28	0	36	190
Hourly Total	0	23	10	33	23	119	126	268	112	54	70	236	39	108	0	147	684
4:00 PM	0	5	5	10	6	53	45	104	37	13	26	76	7	24	0	31	221
4:15 PM	1	5	2	8	6	53	39	98	24	12	28	64	11	25	1	37	207
4:30 PM	0	5	6	11	1	48	44	93	29	15	39	83	10	32	1	43	230
4:45 PM	0	3	4	7	6	39	47	92	34	21	33	88	9	23	1	33	220
Hourly Total	1	18	17	36	19	193	175	387	124	61	126	311	37	104	3	144	878
5:00 PM	1	7	4	12	11	57	36	104	37	19	53	109	14	25	1	40	265
5:15 PM	0	14	6	20	10	45	51	106	33	27	43	103	10	18	0	28	257
5:30 PM	0	5	1	6	11	46	37	94	48	27	28	103	9	13	0	22	225
5:45 PM	0	8	4	12	8	34	49	91	38	17	29	84	13	12	0	25	212
Hourly Total	1	34	15	50	40	182	173	395	156	90	153	399	46	68	1	115	959
6:00 PM	0	9	1	10	14	37	32	83	30	10	13	53	7	25	1	33	179
6:15 PM	0	11	5	16	5	20	47	72	17	19	18	54	3	12	0	15	157
6:30 PM	0	6	4	10	4	21	35	60	31	14	11	56	5	22	2	29	155
6:45 PM	0	4	3	7	6	26	36	68	13	11	5	29	3	7	0	10	114
Hourly Total	0	30	13	43	29	104	150	283	91	54	47	192	18	66	3	87	605
7:00 PM	0	2	3	5	11	13	17	41	14	3	4	21	2	8	0	10	77
7:15 PM	0	5	0	5	5	16	27	48	19	3	9	31	2	12	0	14	98
7:30 PM	0	2	2	4	7	6	26	39	11	0	1	12	2	5	0	7	62
7:45 PM	0	1	5	6	10	13	15	38	7	3	1	11	4	4	0	8	63
Hourly Total	0	10	10	20	33	48	85	166	51	9	15	75	10	29	0	39	300
8:00 PM	0	2	3	5	3	10	16	29	9	0	4	13	0	4	0	4	51
8:15 PM	0	3	2	5	2	8	11	21	15	4	1	20	4	2	0	6	52
8:30 PM	0	1	4	5	8	12	15	35	9	2	0	11	3	5	0	8	59
8:45 PM	0	0	2	2	7	11	14	32	11	4	1	16	0	4	0	4	54
Hourly Total	0	6	11	17	20	41	56	117	44	10	6	60	7	15	0	22	216
9:00 PM	0	0	1	1	3	5	10	18	5	2	0	7	1	5	0	6	32
9:15 PM	0	0	0	0	3	6	10	19	4	2	2	8	0	4	0	4	31
9:30 PM	0	3	0	3	2	4	9	15	3	0	2	5	0	5	0	5	28
9:45 PM	0	0	3	3	4	4	11	19	3	1	2	6	1	2	0	3	31
Hourly Total	0	3	4	7	12	19	40	71	15	5	6	26	2	16	0	18	122
10:00 PM	0	1	0	1	1	2	15	18	5	1	2	8	0	6	0	6	33
10:15 PM	0	1	1	2	2	5	7	14	5	1	1	7	0	3	0	3	26
10:30 PM	0	0	0	0	0	5	8	13	5	1	1	7	0	1	1	2	22
10:45 PM	0	2	1	3	2	6	4	12	1	1	0	2	0	3	0	3	20
Hourly Total	0	4	2	6	5	18	34	57	16	4	4	24	0	13	1	14	101
11:00 PM	0	0	0	0	0	1	6	7	3	0	1	4	0	2	0	2	13
11:15 PM	0	1	0	1	1	1	1	3	2	1	0	3	1	1	0	2	9
11:30 PM	0	1	0	1	0	5	1	6	1	0	0	1	0	1	0	1	9
11:45 PM	0	0	0	0	0	1	3	4	3	0	1	4	1	0	0	1	9
Hourly Total	0	2	0	2	1	8	11	20	9	1	2	12	2	4	0	6	40
Grand Total	11	497	253	761	271	1519	1551	3341	1562	476	602	2640	701	1518	16	2235	8977
Approach %	1.4	65.3	33.2	-	8.1	45.5	46.4	-	59.2	18.0	22.8	-	31.4	67.9	0.7	-	-
Total %	0.1	5.5	2.8	8.5	3.0	16.9	17.3	37.2	17.4	5.3	6.7	29.4	7.8	16.9	0.2	24.9	-
Lights	6	489	247	742	266	1090	1538	2894	1546	472	560	2578	666	1081	12	1759	7973
% Lights	54.5	98.4	97.6	97.5	98.2	71.8	99.2	86.6	99.0	99.2	93.0	97.7	95.0	71.2	75.0	78.7	88.8
Mediums	5	5	4	14	5	167	7	179	15	4	31	50	32	177	4	213	456
% Mediums	45.5	1.0	1.6	1.8	1.8	11.0	0.5	5.4	1.0	0.8	5.1	1.9	4.6	11.7	25.0	9.5	5.1
Articulated Trucks	0	3	2	5	0	262	6	268	1	0	11	12	3	260	0	263	548
% Articulated Trucks	0.0	0.6	0.8	0.7	0.0	17.2	0.4	8.0	0.1	0.0	1.8	0.5	0.4	17.1	0.0	11.8	6.1

Project: Traffic Counts for
 City of Northville - MITC
 Redevelopment Authority
 Corridor: 5 Mile Road
 Weather: Pt. Sunny /
 Cloudy, Dry Temp. 40
 Degree's
 Video VCU ID#: SCU8EY
 NE



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 Reliable Traffic Data

Count Name: TMC_2 Ridge
 Road & 5 Mile Road (24
 Hr.)
 Site Code: TMC_2
 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 3



Project: Traffic Counts for
 City of Northville - MITC
 Redevelopment Authority
 Corridor: 5 Mile Road
 Weather: Pt. Sunny /
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 Road & 5 Mile Road (24
 Hr.)
 Site Code: TMC_2
 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 4

Turning Movement Peak Hour Data (7:15 AM)

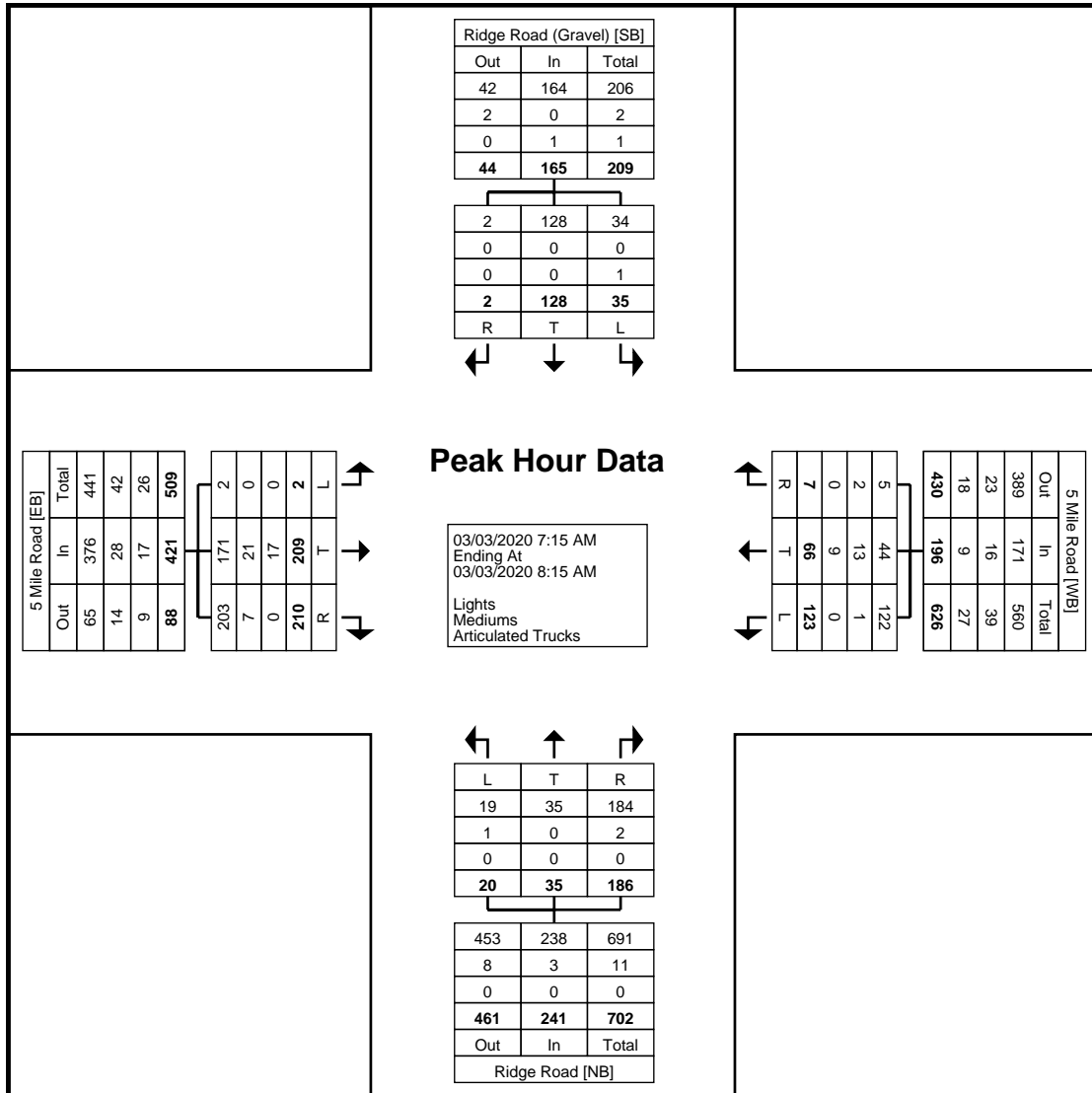
Start Time	Ridge Road (Gravel) Southbound				5 Mile Road Westbound				Ridge Road Northbound				5 Mile Road Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
7:15 AM	0	31	6	37	1	16	33	50	41	9	7	57	37	42	0	79	223
7:30 AM	1	32	8	41	0	18	32	50	38	4	2	44	47	54	2	103	238
7:45 AM	1	34	11	46	3	20	29	52	50	10	5	65	69	61	0	130	293
8:00 AM	0	31	10	41	3	12	29	44	57	12	6	75	57	52	0	109	269
Total	2	128	35	165	7	66	123	196	186	35	20	241	210	209	2	421	1023
Approach %	1.2	77.6	21.2	-	3.6	33.7	62.8	-	77.2	14.5	8.3	-	49.9	49.6	0.5	-	-
Total %	0.2	12.5	3.4	16.1	0.7	6.5	12.0	19.2	18.2	3.4	2.0	23.6	20.5	20.4	0.2	41.2	-
PHF	0.500	0.941	0.795	0.897	0.583	0.825	0.932	0.942	0.816	0.729	0.714	0.803	0.761	0.857	0.250	0.810	0.873
Lights	2	128	34	164	5	44	122	171	184	35	19	238	203	171	2	376	949
% Lights	100.0	100.0	97.1	99.4	71.4	66.7	99.2	87.2	98.9	100.0	95.0	98.8	96.7	81.8	100.0	89.3	92.8
Mediums	0	0	0	0	2	13	1	16	2	0	1	3	7	21	0	28	47
% Mediums	0.0	0.0	0.0	0.0	28.6	19.7	0.8	8.2	1.1	0.0	5.0	1.2	3.3	10.0	0.0	6.7	4.6
Articulated Trucks	0	0	1	1	0	9	0	9	0	0	0	0	0	17	0	17	27
% Articulated Trucks	0.0	0.0	2.9	0.6	0.0	13.6	0.0	4.6	0.0	0.0	0.0	0.0	0.0	8.1	0.0	4.0	2.6

Project: Traffic Counts for
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 Redevelopment Authority
 Corridor: 5 Mile Road
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 Site Code: TMC_2
 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 5



Turning Movement Peak Hour Data Plot (7:15 AM)

Project: Traffic Counts for
 City of Northville - MITC
 Redevelopment Authority
 Corridor: 5 Mile Road
 Weather: Pt. Sunny /
 Cloudy, Dry Temp. 40
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 Hr.)
 Site Code: TMC_2
 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 6

Turning Movement Peak Hour Data (11:30 AM)

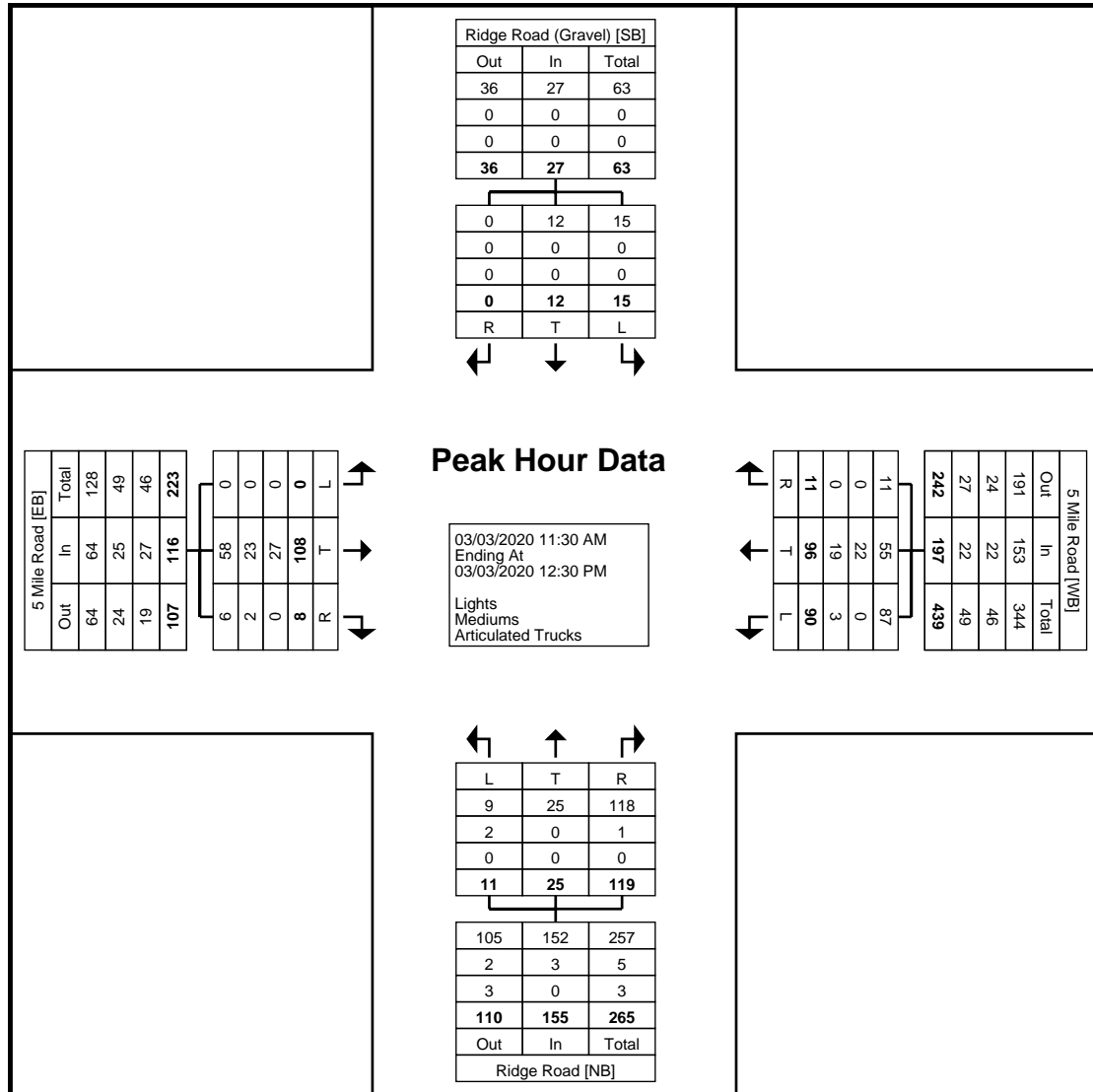
Start Time	Ridge Road (Gravel) Southbound				5 Mile Road Westbound				Ridge Road Northbound				5 Mile Road Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:30 AM	0	3	5	8	1	34	16	51	27	7	4	38	2	31	0	33	130
11:45 AM	0	4	3	7	6	19	24	49	29	5	3	37	2	26	0	28	121
12:00 PM	0	3	4	7	2	16	25	43	41	7	1	49	2	29	0	31	130
12:15 PM	0	2	3	5	2	27	25	54	22	6	3	31	2	22	0	24	114
Total	0	12	15	27	11	96	90	197	119	25	11	155	8	108	0	116	495
Approach %	0.0	44.4	55.6	-	5.6	48.7	45.7	-	76.8	16.1	7.1	-	6.9	93.1	0.0	-	-
Total %	0.0	2.4	3.0	5.5	2.2	19.4	18.2	39.8	24.0	5.1	2.2	31.3	1.6	21.8	0.0	23.4	-
PHF	0.000	0.750	0.750	0.844	0.458	0.706	0.900	0.912	0.726	0.893	0.688	0.791	1.000	0.871	0.000	0.879	0.952
Lights	0	12	15	27	11	55	87	153	118	25	9	152	6	58	0	64	396
% Lights	-	100.0	100.0	100.0	100.0	57.3	96.7	77.7	99.2	100.0	81.8	98.1	75.0	53.7	-	55.2	80.0
Mediums	0	0	0	0	0	22	0	22	1	0	2	3	2	23	0	25	50
% Mediums	-	0.0	0.0	0.0	0.0	22.9	0.0	11.2	0.8	0.0	18.2	1.9	25.0	21.3	-	21.6	10.1
Articulated Trucks	0	0	0	0	0	19	3	22	0	0	0	0	0	27	0	27	49
% Articulated Trucks	-	0.0	0.0	0.0	0.0	19.8	3.3	11.2	0.0	0.0	0.0	0.0	0.0	25.0	-	23.3	9.9

Project: Traffic Counts for
 City of Northville - MITC
 Redevelopment Authority
 Corridor: 5 Mile Road
 Weather: Pt. Sunny /
 Cloudy, Dry Temp. 40
 Degree's
 Video VCU ID#: SCU8EY
 NE



Traffic Data Collection, LLC
 7504 Sawgrass Drive
 www.tdccounts.com
 Washington, Michigan, United States 48094
 Ph. (586) 786-5407
 Reliable Traffic Data

Count Name: TMC_2 Ridge
 Road & 5 Mile Road (24
 Hr.)
 Site Code: TMC_2
 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 7



Turning Movement Peak Hour Data Plot (11:30 AM)

Project: Traffic Counts for
 City of Northville - MITC
 Redevelopment Authority
 Corridor: 5 Mile Road
 Weather: Pt. Sunny /
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 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 8

Turning Movement Peak Hour Data (4:30 PM)

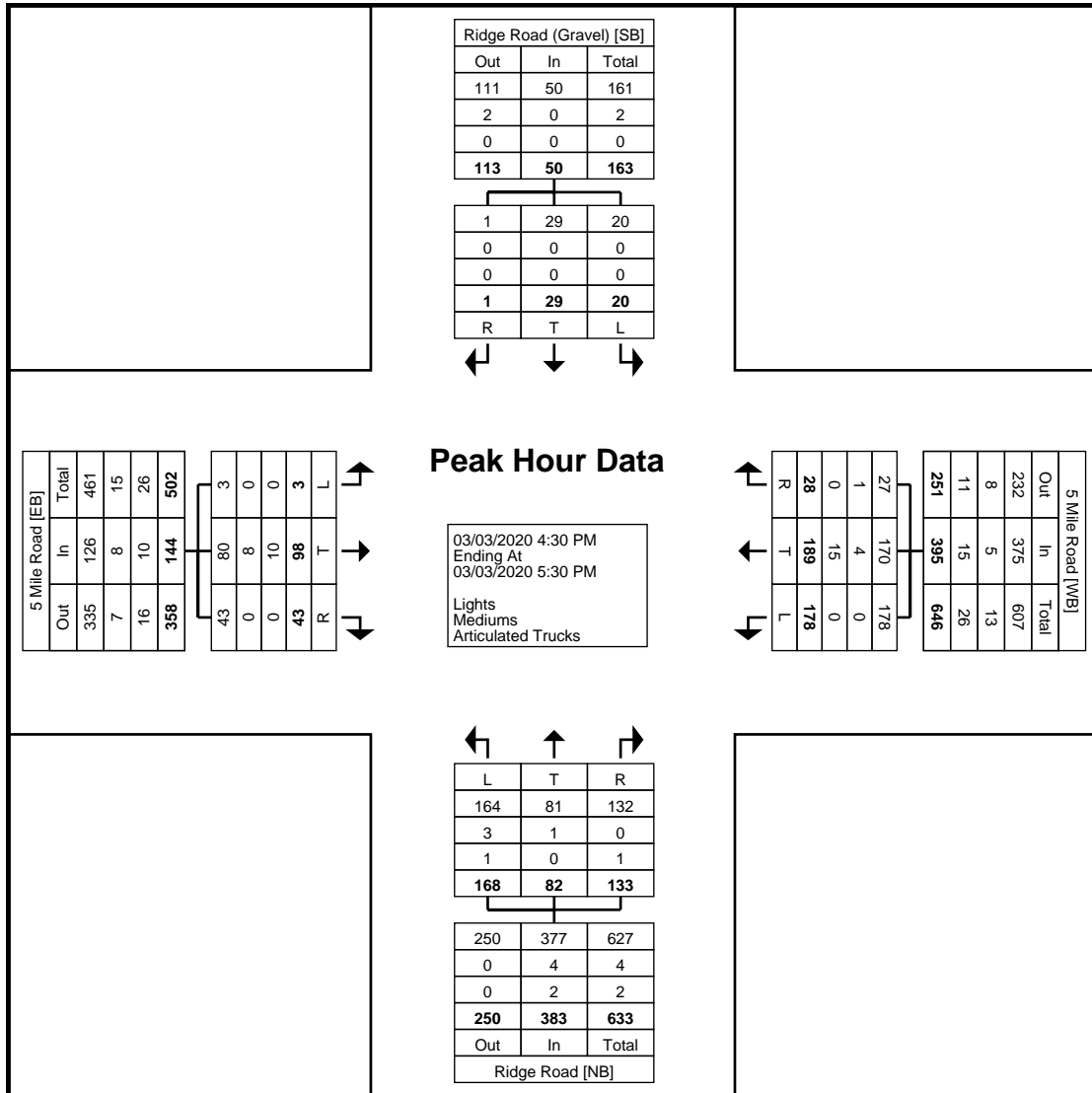
Start Time	Ridge Road (Gravel) Southbound				5 Mile Road Westbound				Ridge Road Northbound				5 Mile Road Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
4:30 PM	0	5	6	11	1	48	44	93	29	15	39	83	10	32	1	43	230
4:45 PM	0	3	4	7	6	39	47	92	34	21	33	88	9	23	1	33	220
5:00 PM	1	7	4	12	11	57	36	104	37	19	53	109	14	25	1	40	265
5:15 PM	0	14	6	20	10	45	51	106	33	27	43	103	10	18	0	28	257
Total	1	29	20	50	28	189	178	395	133	82	168	383	43	98	3	144	972
Approach %	2.0	58.0	40.0	-	7.1	47.8	45.1	-	34.7	21.4	43.9	-	29.9	68.1	2.1	-	-
Total %	0.1	3.0	2.1	5.1	2.9	19.4	18.3	40.6	13.7	8.4	17.3	39.4	4.4	10.1	0.3	14.8	-
PHF	0.250	0.518	0.833	0.625	0.636	0.829	0.873	0.932	0.899	0.759	0.792	0.878	0.768	0.766	0.750	0.837	0.917
Lights	1	29	20	50	27	170	178	375	132	81	164	377	43	80	3	126	928
% Lights	100.0	100.0	100.0	100.0	96.4	89.9	100.0	94.9	99.2	98.8	97.6	98.4	100.0	81.6	100.0	87.5	95.5
Mediums	0	0	0	0	1	4	0	5	0	1	3	4	0	8	0	8	17
% Mediums	0.0	0.0	0.0	0.0	3.6	2.1	0.0	1.3	0.0	1.2	1.8	1.0	0.0	8.2	0.0	5.6	1.7
Articulated Trucks	0	0	0	0	0	15	0	15	1	0	1	2	0	10	0	10	27
% Articulated Trucks	0.0	0.0	0.0	0.0	0.0	7.9	0.0	3.8	0.8	0.0	0.6	0.5	0.0	10.2	0.0	6.9	2.8

Project: Traffic Counts for
 City of Northville - MITC
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 Hr.)
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 Traffic Data Collection,
 LLC
 Start Date: 03/03/2020
 Page No: 9



Turning Movement Peak Hour Data Plot (4:30 PM)

Project: Traffic Counts for
City of Northville - MITC
Redevelopment Authority
Corridor: 5 Mile Road
Weather: Pt. Sunny /
Cloudy, Dry Temp. 40
Degree's
Video VCU ID#: SCU8EY
NE



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Count Name: TMC_2 Ridge
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Hr.)
Site Code: TMC_2
Traffic Data Collection,
LLC
Start Date: 03/03/2020
Page No: 10

TDC Traffic Comments: 24 hour video intersection study includes vehicle classification turning movement count conducted during typical weekday (Tuesday) from 12:00 AM – 12:00 PM, while school was in session. Peak hour reports provided for morning, mid-day & afternoon peak hour study periods.

TMC was performed with Miovision video VCU scout recording cameras for MITC Redevelopment Authority Traffic Study, Wayne County, Michigan for OHM Advisors.

Non-signalized, all-way stop controlled intersection. Video VCU camera was located within NE intersection quadrant. All intersection shared video files have been uploaded to Miovision DataLink cloud platform.

Classification Summary Details & Percentages: Four (4) Groupings:

- 1)Lights Includes: FHWA Classes 1-3 (Motorcycles, Passenger Cars, Light Goods Vehicles,***
- 2)Single-Unit Trucks Includes: FHWA Classes 4-7 (2-4 Axle SU Medium Truck Buses Includes: FHWA Class 4 (School Buses & Regional Transportation Metro Buses)***
- 3)Articulated Trucks Includes: FHWA Classes 8-12 (Heavy Trucks W/Single & Multi Unit Trailers)***
- 4)Pedestrians Includes: All pedestrians using crosswalk***