

## Executive Summary

Exploring the banks of Chelsea Creek today, one might not be aware of the area's rich history as an agricultural resource for Native Americans and European settlers, the site of the first naval engagement of the Revolutionary War, or the location of thriving shipbuilding businesses. Nevertheless, the oil tanks and parking lots that now dominate the Chelsea side of the Creek continue the area's legacy of contributing to the regional economy and culture.

For some, the proximity to deep-water shipping channels, Logan Airport, and the City of Boston makes Chelsea an ideal place to continue to develop industrial uses. For others, the current uses, poorly maintained drainage, sidewalks, crossings, and waterfront paths, limited public space, and legacy contamination are barriers to public access to and enjoyment of the Creek.



Recognizing the challenges and opportunities along the Creek, the City of Chelsea and the Commonwealth initiated the development of a Municipal Harbor Plan and Designated Port Area (DPA) Master Plan in June 2018 (see Appendix J for the Notice to Proceed). Building on previous public visioning processes, including the 2016 initiative facilitated by the Metropolitan Area Planning Council (MAPC) and several meetings with landowners, city and state officials, residents, businesses, and other stakeholders, this plan is the culmination of years of research and public engagement regarding the uses of, access to, and opportunities along Chelsea Creek.

This plan encompasses only the Chelsea portion of the Chelsea Creek Designated Port Area—a state-level designation intended to protect shorelines for water-dependent industrial uses—as well as a small number of parcels recently removed from the DPA. It also considers the impact upon the DPA of adjacent upland parcels that contribute to the industrial character of the study area. A Municipal Harbor Plan is not an opportunity for the community to envision a future waterfront without industrial uses. Rather, it is a pragmatic plan to build upon existing conditions; leverage prior state, federal, and private investments in the port; and maximize public benefits within the existing regulatory framework.

Part of the value of this plan is that it documents existing conditions on topics including:

- public access,
- land use,
- environmental conditions,
- natural resources,
- dredging,
- transportation,
- the state of shore-side infrastructure,
- regulatory conditions,
- predicted impacts of anthropogenic climate change, and
- economic opportunities.

As such, as the plan is implemented, this document will serve as a benchmark for measuring progress and impacts.

The process of preparing this long-term, comprehensive, municipally driven plan involved the participation and cooperation of residents, businesses, property owners, and city, state, regional, and federal government officials. This multi-stakeholder engagement process resulted in a Municipal Harbor Plan that balances the multiple objectives of public access, economic development, job growth, improved quality of life, climate change resilience, and environmental protection for the waterfront through a series of strategies intended to advance the following policies covering eight key topics:

- **Public Access:** Create and maintain robust physical and visual public access that promotes recreation, relaxation, engagement with the waterfront, and enhances economic development.
- **Public Programming:** Develop, support, and maintain public programming that creates economic and cultural opportunities for the community and expands the locations where this programming can occur along the waterfront.
- **Economic Development:** Encourage uses in the harbor planning area that will create living-wage, local jobs, support the local economy, and contribute to regional growth.
- **City Zoning:** Ensure that the city's land use regulations effectively promote the policies of this plan and align with the relevant policies of MGL Chapter 91, the Public Waterfront Act.
- **Transportation:** Increase opportunities for users of all modes and all abilities for improved transportation to, from, and through the Chelsea Creek waterfront while balancing the legitimate needs of both maritime and land-based users.
- **Infrastructure Improvements:** Ensure that waterfront infrastructure is safe and adequate to accommodate existing and anticipated uses, and ensure that infrastructure improvements address predicted sea-level rise and storm-surge scenarios and eliminate inundation pathways, based upon the best available science.
- **Climate Change:** Minimize economic, social, and environmental impacts of anthropogenic climate-change-related flooding and encourage site and infrastructure improvements that mitigate and adapt to projected flooding and sea-level rise.
- **Pollution:** Encourage waterfront uses in a manner consistent with all state and federal environmental regulations, promote the remediation of contaminated sites, and expand progress in realizing the promise of the Clean Water Act of swimmable and fishable waters in Chelsea Creek and its headwaters.

As a state-approved Municipal Harbor Plan and DPA Master Plan, this document is not only a guide for decision making by the city; it also creates policy for state agency actions—permitting, planning, and

## Chelsea Creek 2022 Proposed Municipal Harbor Plan and DPA Master Plan

programmatic—in the planning area. In this way, the plan offers several benefits to the city, its residents, businesses, existing and potential landowners, and others. These benefits include:

- *Improving predictability in decision making* by modifying certain numerical standards and dimensional requirements of the state's Waterways Regulations at 310 CMR 9.00 to meet local planning objectives. Specifically, Chelsea's plan provides for needed flexibility in locating and developing commercial and industrial Supporting DPA Uses in the Designated Port Area and ensuring the long-term resiliency of development within the planning area.
- *Helping to realize economic benefits* by creating clear guidelines on land use standards, policies, and trends which may lead to increased investments and job density along the waterfront.
- *Creating social benefits* by providing a framework for securing increased public access to the waterfront and funds to support public investments in waterfront improvements. The plan proposes to allow for the placement of public access structures over the watersheet where it will not impact maritime activity.

In order to implement this plan, the city has modified its zoning ordinances to explicitly allow for maritime industrial uses within the planning area and to protect the industrial character of the Marginal Street and Eastern Avenue corridors.

As a ten-year planning document, this Municipal Harbor Plan and Designated Port Area Master Plan will improve the ways in which the Creek and its waterfront serve the community, the local economy, and the Commonwealth in the years to come.



## Chapter 8: DPA Master Plan

This chapter of the Chelsea Creek Municipal Harbor Plan is prepared as the Master Plan for the city's portion of the Chelsea Creek Designated Port Area (DPA) (Figure 29).

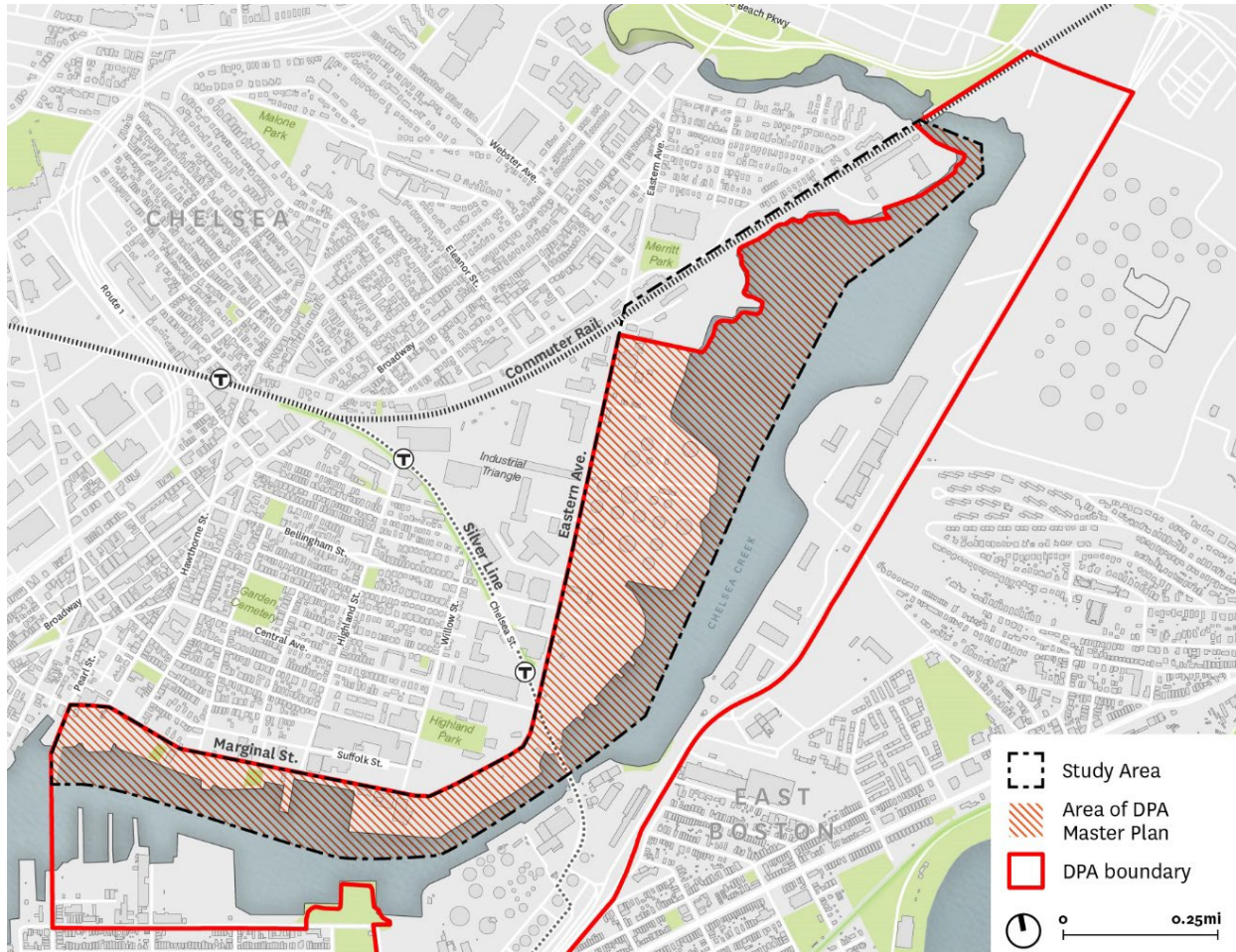


Figure 1: Designated Port Area Master Plan planning area

The Chelsea Creek DPA covers the entire watershed within the city's jurisdiction in the river, including flowed tidelands, and most of the adjacent land area and piers from the Andrew P. McArdle Bridge upstream to the MBTA rail crossing of Mill Creek. The upland portions of several parcels at the northern end of the DPA, the Forbes parcel (18 acres) and the parcels on which Glyptal and Atlas Glen-More companies are located (22 acres), were removed from the original DPA boundary on April 6, 2016, following a formal boundary review process by the Massachusetts Office of Coastal Zone Management.

The Chelsea Municipal Harbor Plan and DPA Master Plan set forth the city's vision and the implementing mechanisms for guiding public and private decision-making over the use of the land and water within the planning area. Upon approval of the plan by the state, projects seeking a Chapter 91 license must be in conformance with the plan.

## 8.1 Goals and “Vision”

This plan fully endorses water-dependent industrial uses on an extensive amount of the DPA land area in close proximity to the water, provides guidance for improving community access to the waterfront in ways compatible with industrial uses, and presents a strategy for accommodating commercial and industrial Supporting DPA Uses and related adjacent development in ways that maximize the waterfront's economic development potential and job creation.

The city's goals for the Chelsea Creek DPA are to:

1. Maintain and support existing water-dependent industrial uses and encourage new and expanded uses in suitable locations.
2. Provide flexibility in permitting and licensing of commercial and industrial Supporting DPA Uses to encourage their siting in areas where they will not introduce incompatibilities in areas of predominantly marine industrial use.
3. Encourage and manage, through the city's Zoning Ordinance, the use of DPA land area outside of Chapter 91 jurisdictional land (flowed and filled tidelands) for commercial and industrial development for purposes of expanding the city's economy, tax base, and job opportunities.
4. Promote increased public access to Chelsea Creek by:
  - a) Incorporating requirements into the permitting and licensing of all development and redevelopment in the DPA to contribute to increasing or improving public access.
  - b) Designing and locating perpendicular and point access to the waterfront to serve Chelsea neighborhoods. Where appropriate, perpendicular access will be along the public right-of-way or the shorefront and point access will be along property lines.
  - c) Improving publicly owned property to enhance access from city neighborhoods to the waterfront.

The Chelsea Creek Municipal Harbor Plan and DPA Master Plan both support the following on property in the DPA:

- Water-dependent industrial uses and accessory uses thereto on filled tidelands, pile-supported structures, and upland areas
- Non-water-dependent commercial and industrial uses as Supporting DPA Uses on filled tidelands in an amount not to exceed 25 percent of the area of filled tidelands within the DPA. Appendix L includes a list of allowable Supporting DPA Uses.
- Commercial and industrial uses on portions of properties outside of Chapter 91 jurisdiction within the DPA, sited and designed so as not to conflict with, preempt, or discourage water-dependent industrial activity or public use and enjoyment of the water-dependent use zone where appropriate.

In support of these objectives, the City of Chelsea updated its zoning ordinance to align with this plan in March 2021.

## 8.2 Strategies

The DPA Master Plan proposes a regulatory framework and detailed implementation measures to ensure that extensive areas of the DPA within Chapter 91 jurisdiction are reserved for water-dependent

industrial uses, and puts forward limits on commercial uses to prevent incompatibility with marine industry while continuing to provide flexibility in the density and location of allowable Supporting DPA Uses. The Chelsea Creek DPA Master Plan does this by:

- Promoting, preserving, and ensuring the active use of the shorefront of each property. The shorefront shall either be accessible to water-dependent industrial users or to the public by point access points or walkways, as appropriate.
- Working with owners of existing water-dependent industrial businesses to expand their investments, jobs, and operations and to attract new maritime uses to the waterfront.
- Encouraging Supporting DPA Uses and related commercial uses that strengthen the economic viability of waterfront property and its ability to maintain important shore-side and water-side infrastructure.
- Providing flexibility in the amount, distribution, and locations of commercial Supporting DPA Uses to encourage reinvestment in waterfront property and in both public and private infrastructure.
- Promoting active public access in specific areas to enable community members improved access to the waterfront in ways that will build community support for and neither limit nor interfere with water-dependent industrial operations.
- Recommending revisions to both the city zoning ordinance and specific substitutions and amplifications to codify the plan's recommendations under Chapter 91. The city's zoning ordinance was revised in March 2021. The proposed substitutions and amplification to certain numerical standards and dimensional requirements set out in the Waterways Regulations at 310 CMR 9.00 are included in Chapter 8.6.

As part of the implementation of this plan, the city will establish a Waterfront Improvement Fund ("WIF") to support water-dependent industrial use within the DPA. The WIF will serve as a means by which an allowable commercial or industrial use can provide direct economic support to water-dependent industrial users in order to qualify as a Supporting DPA Use for Chapter 91 licensing purposes. Supporting DPA Uses are not required to contribute to the WIF if they provide an alternative form of direct economic or operational support to water-dependent industrial use within the DPA. However, the WIF is an acceptable form of economic support that Supporting DPA Uses can utilize to meet regulatory requirements. Contribution amounts are to be determined on a case-by-case basis during the Chapter 91 licensing process.

This WIF will be a segregated account used exclusively to fund projects that support water-dependent industrial use within the DPA in consultation with DEP and as may be prescribed in the Chapter 91 license conditions. WIF-funded projects could include projects within the harbor that improve navigation, address inundation pathways, mitigate flooding, reduce industrial conflicts, and promote activities consistent with a working waterfront. Specific examples of projects that could be funded include: bulkhead improvements; fender maintenance; stormwater management; tide-gates; dredging; lighting; signage; and improved traffic management. No funds will be used to support any dredging where spoils will be disposed of in Chelsea Creek or the Mystic River.

### 8.3 DPA Land Use Context and Calculations

The Chelsea Creek DPA consists of: flowed tidelands, including present submerged lands and tidal flats and the area of pile-supported piers; filled tidelands, which are subject to Chapter 91 jurisdiction; and upland areas that have always been landward of normal tidal action and are not within the jurisdiction of Chapter 91.

*Table 1: Area of the Chelsea Creek DPA Within and Outside of Chapter 91 Jurisdiction (not including flowed tidelands)*

|   | <b>Acres</b> | <b>Percent</b> |
|---|--------------|----------------|
| Total area of filled tidelands and pile-supported piers | 39.12        | 43.6%          |
| Total area outside of jurisdiction                      | 50.42        | 56.3%          |
| Total land area within the DPA                          | 89.54        | 100%           |

One of the DPA Master Plan approval standards (301 CMR 23.05(e)(1)) is that the plan shall ensure that an extensive amount of the total DPA land area in close proximity to the water will be reserved for water-dependent industrial uses and, further, that commercial uses and any accessory uses thereto will not, as a general rule, occupy more than 25 percent of the total DPA land area covered by the Master Plan. To ensure that supporting commercial uses and any accessory uses thereto will not, in the aggregate, occupy more than 25 percent of the total DPA land area covered by the Master Plan, the director of the City of Chelsea Housing and Community Development Department shall maintain an accounting of the supporting commercial uses permitted and licensed within the Chelsea Creek DPA Master Plan planning area and provide this information to MassDEP and CZM upon the filing of any application for a Waterways license for a commercial Supporting DPA Use in the Chelsea Creek DPA.

### 8.4 Water-Dependent Industrial Uses, Accessory Uses, and Temporary Uses

DPA Master Plans must ensure that an extensive amount of the total DPA land area covered by the Master Plan is occupied by and/or reserved for water-dependent industrial uses. Water-dependent industrial uses are defined in the state's Waterways Regulations (310 CMR 9.12(2)(b)). Generally, these are industrial uses that require direct access to or location in tidal waters and therefore cannot be located away from such waters, such as marine terminals, storage for materials and goods transported in waterborne commerce, commercial passenger vessel operations, commercial fishing, boatyards, facilities for vessels engaged in ports operations, etc.

Included as water-dependent industrial uses are accessory uses, i.e., those uses that are customarily associated with, integral in function to, commensurate in scale with the water-dependent industrial use, operate at similar hours, and do not require significant additional investment in infrastructure (see 310 CMR 9.12(3)(a) and (b)).

Temporary Uses include warehousing, trucking, parking, and other industrial and transportation uses that occupy vacant space or facilities in a Designated Port Area, for a maximum term of ten years and without significant structural alteration of such space or facilities (310 CMR 9.02). Temporary uses may be licensed only if marketing efforts have failed to identify any prospective water-dependent industrial

tenant, and if the license is conditioned to require further solicitation of such tenancy upon expiration of the license term.

## 8.5 Supporting DPA Uses

Many industrial or commercial uses, other than those posing a conflict with port operations, are eligible for licensing as Supporting DPA Uses. A list of potentially allowable Supporting DPA Uses in the Chelsea Creek DPA is included in Appendix L. The Chapter 91 regulations (310 CMR 9.02) categorically exclude from eligibility as a Supporting DPA Use hotels/motels, nursing homes, hospitals, recreational boating facilities, entertainment facilities, and new buildings devoted predominantly to office use.

Within the Chelsea Creek DPA, the combined area of filled tidelands and pile-supported piers is 39.12 acres. To ensure that no more than 25 percent of the DPA Master Plan area is occupied by supporting commercial uses, 75 percent, or 29.34 acres must be used or reserved for water-dependent industrial uses, or industrial Supporting DPA uses.

*Table 2: Properties that are Currently and Will Likely Remain as Water-Dependent Industrial Uses*

| Address  | Use  | Total Acres above MHW | Acres within Jurisdiction |
|--|--|-----------------------|---------------------------|
| 701 Chelsea Street   | City of Boston bridge footing                            | 0                     | 0                         |
| Eastern Avenue, Marginal Street, and Chelsea Street and McArdle Bridge to the city line in Chelsea Creek | ROW  | 12.26                 | 1.07                      |
| 123 and 281 Eastern Avenue   | Gulf Oil   | 32.36                 | 10.22                     |
| 13 Marginal Street   | Eastern Minerals salt storage                            | 4.19                  | 3.91                      |
| 59 Marginal Street   | Eastern Minerals salt storage                            | 0.60                  | 0.53                      |
| 69 Marginal Street   | Eastern Minerals salt storage                            | 0.57                  | 0.50                      |
| 71 Marginal Street   | Eastern Minerals salt storage                            | 0.46                  | 0.39                      |
| 91 Marginal Street   | Commonwealth of Mass.                                    | 0.45                  | 0.38                      |
| 99 Marginal Street   | Eastern Minerals salt storage                            | 4.53                  | 4.21                      |
| 239 Marginal Street  | Enterprise parking                                       | 3.10                  | 3.10                      |
| 245 Marginal Street  | Eastern Minerals, currently permitted as a temporary use | 0.98                  | 0.98                      |
| 249 Marginal Street  | Eastern Minerals, currently permitted as a temporary use | 1.03                  | 1.03                      |
| 257 Marginal Street  | Eastern Minerals, currently permitted as a temporary use | 3.36                  | 3.18                      |
| <b>TOTAL</b>   |  | <b>63.89</b>          | <b>29.50</b>              |

The parcels above, prioritized for water-dependent industrial uses are, with the exception of one long-term water-dependent industrial user (Gulf Oil at 123 and 281 Eastern Avenue), those properties with the highest percentage (at or close to 100 percent) of filled tidelands.



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*Table 3: Properties Likely to Not Consist Entirely of Water-Dependent Industrial Uses and Temporary Uses that Are Permitted But May Change During the Term of this Plan.*

| <b>Address</b>                  | <b>Current use</b>  | <b>Total Acres above MHW</b> | <b>Acres within Jurisdiction</b> |
|---------------------------------|---|------------------------------|----------------------------------|
| 0 Eastern Avenue                | Former bridge ROW   | 0.13                         | 0.13                             |
| 15 Eastern Avenue               | Commonwealth of Mass, vacant  | 0.52                         | 0.45                             |
| 29 Eastern Avenue               | Commonwealth of Mass, vacant  | 0.13                         | 0.02                             |
| 43 Eastern Avenue (Parcel 15-3) | MassDOT, former railroad ROW, state laydown area                              | 0.35                         | 0.12                             |
| 111 Eastern Avenue              | Surface parking (temporary license)   | 19.26                        | 5.84                             |
| 291 Eastern Avenue              | Warehouse and manufacturing   | 1.60                         | 0.01                             |
| 11 Marginal Street              | Auto repair shop  | 0.15                         | 0.06                             |
| 201, 197 Marginal Street        | Pile supported pier and floating docks, storage building, and surface parking | 0.87                         | 0.87                             |
| 227 Marginal Street             | Office space  | 0.31                         | 0.19                             |
| 229 Marginal Street             | Commercial supply warehouse and showroom                                      | 1.06                         | 0.75                             |
| 235 Marginal Street             | Storage of vehicles for hire  | 1.27                         | 1.18                             |
| <b>TOTAL</b>                    |   | <b>25.65</b>                 | <b>9.62</b>                      |

The total acreage of the parcels in Table 8 that could be available for licensing as supporting DPA uses will be less than the total of 9.62 acres shown because portions of these properties will be within the water-dependent use zone and subject to the open space requirements of the Waterways Regulations and dimensional requirements of the Chelsea Zoning Ordinance.

The properties in Table 8, on which this plan anticipates the continuation or future siting of commercial or industrial supporting uses are, for the most part, those with either smaller percentages of area within jurisdiction or those that are not located directly on the waterfront. These characteristics contribute to ensuring that siting of supporting uses will not conflict with, preempt, or discourage water-dependent industrial uses on filled tidelands. In general, the city's goal for siting supporting uses in the DPA is to allow only the amount necessary to optimize site development in furtherance of the city's economic development objectives and the goals of this plan.

The area total for parcels in Table 7 reveals that 29.5 acres are currently used for and/or protected by this plan for water-dependent industrial use. This complies with the DPA Master Plan approval standards which require an "extensive amount of the total DPA land area in close proximity to the water will be reserved for water-dependent industrial uses".

Table 4: Summary of Uses of Filled Tidelands Within the Chelsea Creek DPA.

| Chelsea Creek DPA   | Acres | Percent |
|---|-------|---------|
| Acres within Chapter 91 jurisdiction  | 39.12 | 100%    |
| Area of parcels committed to water-dependent industrial uses and temporary uses (Table 7) | 29.50 | 75.4%   |
| Maximum area that may accommodate supporting commercial uses (25% of total)               | 9.78  | 25%     |
| Area used or available for supporting commercial or industrial uses (Table 8)             | 9.62  | 24.6%   |

## 8.6 Guidance to DEP

The Plan proposes guidance that will have a direct bearing on DEP licensing decisions within the harbor planning and DPA Master Plan area. Included in this proposed guidance are:

- Provisions for substitution of certain specific minimum numerical standards in the regulations;
- Provisions that amplify certain discretionary requirements of the Waterways Regulations; and
- Recently adopted revisions to the city's Zoning Ordinance. These revisions:
  - Establish a new Port zoning district that limits uses to water-dependent industrial, general industrial uses, commercial uses, and accessory uses on properties within the DPA.
  - Establish a new Waterfront Upland district on the upland side of Marginal Street consisting of land that was previously in the Waterfront zone that creates a commercial and light industrial buffer between the DPA and adjacent residential neighborhoods.

These zoning designations address the MHP approvability standard of 301 CMR 23.05(2)(e)(4)(c), which states that the plan set forth a strategy that commits to maintaining "...a surrounding land development pattern that provides an appropriate buffer between industrial uses in the DPA and community uses that require separation therefrom in order to avoid significant operational conflict.

- Precludes the use of planned development as a vehicle for residential development in the Marginal Street and Eastern Avenue waterfront and upland parcels.
- Establishes additional standards for site plan review of new or expanded uses in the Port district to ensure consistency with this plan's goals, the standards for Municipal Harbor Plan approval, and with Chapter 91 licensing requirements.
- Modifies the definition of Land Area to include only the portion of a parcel that is above mean higher high water.

These additional criteria help to ensure that no more than 25 percent of the total area within the DPA will be used for commercial supporting uses and accessory uses thereto. The plan does anticipate and enables flexibility in the amount of commercial supporting uses, as long as the total across all DPA area covered by the Master Plan does not exceed 25 percent.

## Substitutions

Through an approved DPA Master Plan, a municipality has the ability to "substitute" local standards for certain dimensional requirements of the state Waterways Regulations, such as for the water-dependent use zone, building height, and setbacks for non-water-dependent uses. This plan proposes substitutions for three numerical standards within the Waterways Regulations, described in Table 10.

*Table 5: Proposed Substitutions of Minimum Use Limitations or Numerical Standards of 310 CMR 9.00.*

| Regulatory Provision                        | Chapter 91 Standard  | Substitution   | Offsetting Measure  |
|---|--|--|---|
| SUPPORTING DPA USES:<br>310 CMR 9.32(1)(b)5 | The Department shall waive the numerical standard for Supporting DPA Uses as defined at 310 CMR 9.02, if the project conforms to a DPA Master Plan or Marine Industrial Park Master Plan which specifies alternative site coverage ratios and other requirements which ensure that:<br>a. said Supporting Uses are relatively condensed in footprint and compatible with existing water-dependent industrial uses on said pier;<br>b. said Supporting Use locations shall preserve and maintain the site's utility for existing and prospective water-dependent industrial uses;<br>c. parking associated with a Supporting Use is limited to the footprint of existing licensed fill and is not located within a Water-dependent Use Zone; and<br>d. The use of tidelands for this purpose in a DPA shall | For 111 Eastern Avenue, up to 35% of filled tidelands are allowed for Supporting DPA Uses outside of the water-dependent use zone. | This provision would allow additional Supporting DPA (SDPA) Use pursuant to 310 CMR 9.02 on this particular site in compliance with 310 CMR 9.32(b)(5)a-d. As an offsetting measure, for any area of SDPA use in excess of 25% of the Project Site within c.91 jurisdiction, economic support shall be provided at a rate to be determined during the Chapter 91 licensing process. Economic support payments may be made to the Waterfront Improvement Fund to directly support water-dependent industrial use in the DPA. |

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|  | also be governed by the provisions of 310 CMR 9.15(1)(d)1. and 310 CMR 9.36(5).  |   |   |
| WATER<br>DEPENDENT USE<br>ZONE:<br>310 CMR<br>9.51(3)(c) | New or expanded buildings for nonwater-dependent use, and parking facilities at or above grade for any use, shall not be located within a water-dependent use zone; except as provided below, the width of said zone shall be determined as follows:<br>1. along portions of a project shoreline other than the edges of piers and wharves, the zone extends for the lesser of 100 feet or 25% of the weighted average distance from the present high water mark to the landward lot line of the property, but no less than 25 feet; and<br>2. along the ends of piers and wharves, the zone extends for the lesser of 100 feet or 25% of the distance from the edges in question to the base of the pier or wharf, but no less than 25 feet; and<br>3. along all sides of piers and wharves, the zone extends for the lesser of 50 feet or 15% of the distance from the edges in question to the edges immediately opposite, but no less than ten feet. | The required WDUZ dimensions may be modified on any project site as long as a minimum width of 25 feet is maintained along the project shoreline and as long as the modification results in no net loss of WDUZ area within jurisdiction. | Substitution provision will be applied to those project sites where the resultant reconfiguration achieves greater effectiveness in the use of the water's edge for water-dependent industrial use.<br>The reconfigured zone must be adjacent to the waterfront and within Chapter 91 jurisdiction. In no case will a reconfigured WDUZ result in an area separated from the waterfront or in a net loss of WDUZ. The displaced area of WDUZ would be added on-site in Chapter 91 jurisdiction in an area of greater utility and value. |
| HEIGHT LIMITS:<br>310 CMR<br>9.51(3)(e)                  | New or expanded buildings for non-water-dependent use shall not exceed 55 feet in height   | At 111 Eastern Avenue: allow new or expanded buildings for nonwater-  | This substitution proposes a uniform maximum building height of 80 feet,  |



|  |  |  |  |
|--|--|--|--|
|  | if located over the water or within 100 feet of the high water mark; for every foot beyond 100 feet from the high water mark, the height of the building can increase by 0.5 feet. | dependent use to exceed the 55-foot limit and be constructed up to 80 feet high, and set a uniform maximum building height of 80 feet within filled tidelands on the project site. | resulting in a structure with significantly less total mass than allowed under Chapter 91. Any applicant for a Chapter 91 license may be required to provide a shadow study, an pedestrian level wind impact analysis, and an evaluation of other conditions of the ground-level environment that may affect water-dependent industrial users as deemed appropriate by DEP to facilitate their determination of whether additional offsetting measures are required. |
|--|--|--|--|

#### Supporting Uses

In accordance with the authorization in the regulations for Review and Approval of Municipal Harbor Plans (301 CMR 23.00), and as consistent with the definitions in 310 CMR 9.02, the Chelsea Municipal Harbor Plan and DPA Master Plan endorses as Supporting DPA Uses those non-water-dependent industrial and commercial uses not precluded by state regulations and allowed in the city's zoning code. A list of potentially allowable Supporting DPA Uses in the planning area is included as Appendix L.

Chapter 91 licenses issued for properties within the DPA may include supporting commercial and industrial uses. Permitted uses may satisfy the requirement to provide water-dependent industrial use in the DPA with direct economic support by contributing to the city's Waterfront Improvement Fund. The value of such contributions will be determined during the licensing process, but must "adequately compensate for the reduced amount of tidelands on the project site that will be available for water-dependent industrial use during the term of the license."

To ensure that supporting commercial uses and any accessory uses thereto will not, in the aggregate, occupy more than 25 percent of the total DPA land area covered by the Master Plan, the director of the City of Chelsea Housing and Community Development Department shall maintain an accounting of the supporting commercial uses permitted and licensed within the Chelsea Creek DPA Master Plan planning area and provide this information upon request by MassDEP and CZM in connection with the filing of any application for a Waterways license involving supporting commercial uses in the Chelsea Creek DPA.

## Building Height

Standard Chapter 91 building heights for 111 Eastern Avenue range from 55 feet close to the water to 255 feet close to Eastern Avenue. This MHP proposes a uniform maximum building height of 80 feet, consistent with the City of Chelsea Port District zoning, resulting in a structure with less total mass than allowed under Chapter 91. Building height will be calculated in accordance with the City of Chelsea zoning ordinance. In this circumstance, an 80-foot-high building is appropriate because it would not adversely impact the ground level environment for water-dependent activity and public access associated therewith.

The differential impact of the substitution on building massing will result in an allowable building mass reduction of approximately 40 percent, making the ground level environment more conducive to water-dependent activity and public access.

The net new shadow cast by an 80-foot-high structure compared to the shadow cast by a structure compliant with Chapter 91 height limits totals 265 square feet. A shadow study comparing the shadow impacts of a structure compliant with Chapter 91 height limits compared to an 80-foot-high structure is included in Appendix M. These additional shadow impacts are limited to a small portion of land within Chapter 91 jurisdiction and primarily impact an abutting oil tank farm. Such impacts would not foreseeably affect the operation of the adjacent water-dependent industrial use, the Gulf Oil tank farm. Additionally, the increased building height closer to the high water mark would not result in any changes to other conditions of the ground level environment on the parcel. Given the water-dependent industrial nature of the DPA, it is expected that the 80-foot building height would indiscernibly impact the conditions of the ground level environment.

## **Amplifications**

In addition to substituting local standards for certain dimensional requirements of the state Waterways Regulations, a municipality can also “amplify” certain state requirements. This plan proposes one amplification to increase the resiliency of the DPA in the face of sea level rise and increased flooding events.

*Table 11: Proposed Amplification of Minimum Use Limitations or Numerical Standards of 310 CMR 9.00.*

|   |   |   |
|---|---|---|
| SHORE PROTECTION STRUCTURES: 310 CMR 9.12(2)(a)11 and 12; and 310 CMR 9.12(2)(b)7 | 11. shore protection structures, such as seawalls, bulkheads, revetments, dikes, breakwaters, and any associated fill which are necessary either to protect an existing structure from natural erosion or accretion, or to protect, construct, or expand a water-dependent use; | This harbor plan seeks to amplify that resilient shore protection structures under 310 CMR 9.12(2)(a)11 and flood, water level, or tidal control facilities under 310 CMR 9.12(2)(a)12 which may be categorized as water-dependent industrial uses under 310 CMR 9.12(2)(b)7 are designed to address future sea level rise projections for the life of the structures on site. The upland portion of the DPA, including Marginal Street and Eastern Avenue, will be subject to increasing flood events due to sea level rise. This harbor plan seeks to reduce such flooding by protecting vital truck routes and water-dependent industrial uses. To this end, the |
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|  |   |   |
|--|---|---|
|  | <p>12. flood, water level, or tidal control facilities;</p> <p>(b)7. any water-dependent use listed in 310 CMR 9.12(2)(a)9. through 14., provided the Department determines such use to be associated with the operation of a Designated Port Area;</p> | <p>City of Chelsea zoning ordinance requires projects to take measures in project siting and design to avoid, eliminate, minimize, or mitigate any adverse impacts from future sea level rise. Applicants for Chapter 91 licenses shall submit documentation to MassDEP that any proposed shore protection structures and flood, water level, or tidal control facilities are designed to accommodate future sea level rise for the design life of any structures on the property in accordance with the City's standards, and shall not affect the capacity of the DPA to support other water-dependent industrial uses.</p> |
|--|---|---|

## Additional Guidance

### Public Pedestrian Access

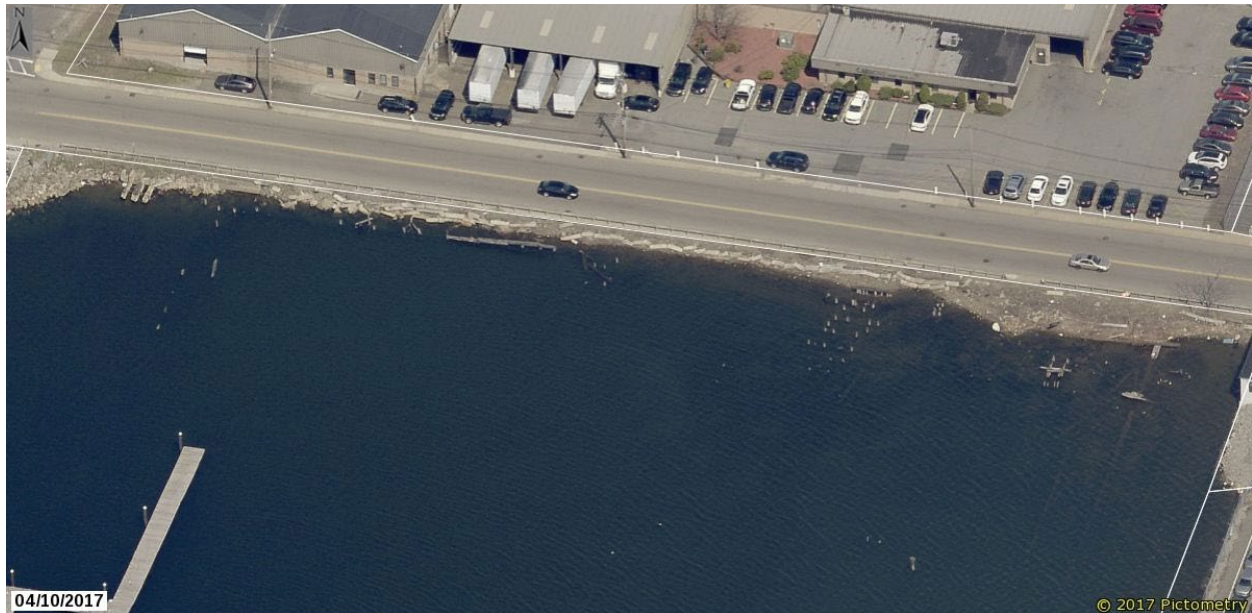
Improving public access to the waterfront is identified as the community's number one priority for this plan. As described in section 4.5 of this plan, the city is pursuing several initiatives to improve movement and safety for all users of Marginal Street and Eastern Avenue. Both roadways are key freight distribution corridors for industrial uses in this region and also carry large numbers of passenger vehicles daily. Proposed near-term activities include new pavement markings and, eventually, potential improvements to the right-of-way to better accommodate pedestrians and cyclists along with the vehicular traffic, in accordance with the city's adopted Complete Streets Policy. To safely and adequately accommodate the requirements of these multiple users consistent with state and city design standards, it may be beneficial to expand the right-of-way wherever feasible. In the longer term, the city and this plan contemplate mitigating inundation pathways within the planning area. Wherever possible, these efforts will be combined with enhanced visual and physical access by the public. Public access designed in accordance with the guidance in this plan may be included where determined to be appropriate by DEP during the licensing process.

### *The area at 215 Marginal Street*

In the area of 215 Marginal Street, the street right-of-way closely parallels the high water mark. Among the projects eligible for licensing in a DPA (310 CMR 9.32(1)(b)8) are "structures to accommodate public pedestrian access, provided that such structures are located above the high water mark or within the footprint of existing pile supported structures or pile fields, wherever feasible."

This harbor plan anticipates that it may be necessary and desirable for the future sidewalk along this stretch of Marginal Street to be built in part on a structure extending below the mean high water mark. This appears both to be the only feasible way to accommodate a sidewalk designed to city standards in this area and consistent with the provisions of the above-cited section of the Waterways Regulations. Any structure would be designed for minimal encroachment into flowed tidelands and, due to surrounding conditions, have no negative impact on the future use of the area for water-dependent

industrial use while providing an excellent opportunity for pedestrians to view the river and nearby waterfront activities.



*Figure 2: Oblique View from the South of the Shoreline at 239 Marginal Street*

Additionally, the city is interested in fortifying this area to eliminate an existing inundation pathway for floodwaters. No design work for a possible barrier has been completed, but the design would be done consistent with 310 CMR 9.32(2)(a) which authorizes the licensing of fill or structures for “shoreline stabilization or the rehabilitation of an existing shore protection structure, irrespective of the uses proposed landward of such fill or structure.” Due to a lack of sufficient width in the right-of-way, future pedestrian lateral access along the roadway may be constructed on an elevated boardwalk within the tidal flats. Any proposed fortification may also include habitat restoration. The proposed amplification for shore protection structures which would apply to fortification in this area is consistent with and necessary for the realization of the climate change objectives of this plan as outlined in chapter 7.

#### *The area connecting 295 Eastern Avenue and 1 Forbes Street*

The two properties known as 295 Eastern Avenue (assessor's parcel 50-7) and 1 Forbes Street (assessor's parcel 69-22) are at the northern and easternmost end of the study area. The parcels adjoin along a thin strip of flowed tidelands and are backed by the MBTA right-of-way. Both parcels have extensive frontage on the Chelsea River with varying amounts of filled tidelands. The upland areas of these parcels were removed from the Chelsea Creek DPA through a boundary modification by MCZM in April 2016. The river itself, fronting these parcels, inundates the property at high tide, reaching the MBTA right-of-way. The proposed amplification for shoreline protection structures would ensure that any proposed fortification in this area will be designed in accordance with the City's design standards to accommodate future sea level rise for the life of the structures.





*Figure 30: 295 Eastern Avenue and 1 Forbes Street parcels with DPA boundary (red) and presumptive historic high water line (yellow).*

It was noted in both the boundary review and decision documents that the land area of these properties (referred to as the Railroad South and Railroad North Planning areas) do not possess a substantially developed shoreline which creates a functional connection to DPA waters. Because this condition likely precludes or significantly limits future development of traditional water-dependent use along this portion of the river, this plan supports, at a minimum, the provision of lateral public access along the entire riverfront of these two properties and connecting with public rights-of-way. DEP license # 13544 (7/22/2013) contains such conditions for the Forbes Parcel and this plan supports a similar and complementary requirement in any DEP licensing and city permitting on the 295 Eastern Avenue property. The city has already permitted a 590-unit, mixed-use development for the parcel at 1 Forbes Street that includes the requirement to build a lateral public path along the waterfront to the property line with 295 Eastern Avenue with connection to the public right-of-way.

In the narrow segments where these properties meet, there is insufficient space to accommodate a pedestrian walkway above the high water line as the contemporary high water line is on the MBTA right-of-way. Where it is not feasible to locate the access-way above mean high water in this area, this plan supports the use of a pile supported structure or fill below mean high water to accommodate public pedestrian access, as provided for in 310 CMR 9.32.1.(b)8.

*Figure 3: DPA, Jurisdictional, and Property Lines along MBTA ROW*



*Figure 4: Aerial Photo of Area along MBTA ROW with City Parcel Lines*

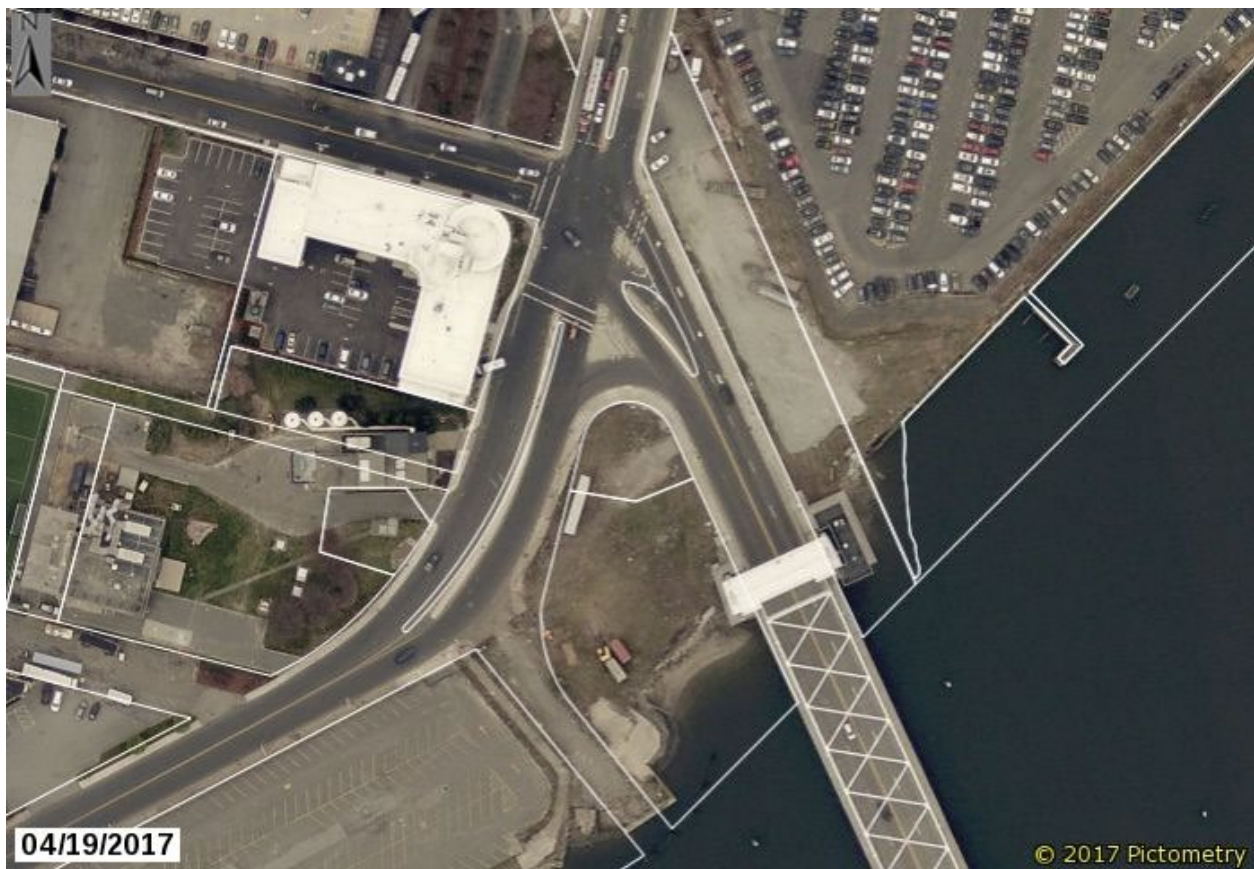
Any such structure or fill would be designed for minimal encroachment into flowed tidelands and, due to surrounding conditions (as established during the DPA boundary review), would have no negative



impact on the future use of the area for water-dependent industrial use while providing an excellent opportunity for pedestrians to access the river, experience the riverine environment, engage in passive recreation, and view nearby waterfront activities. Habitat restoration would also be considered.

*The area adjacent to and under the Chelsea Street Bridge*

The city is currently in discussions with the Commonwealth to acquire ownership or long-term leases to the parcels on either side of the Chelsea Street Bridge in order to create new public open space as robust point access at an important gateway to Chelsea that would connect the new Chelsea Greenway to the waterfront. These parcels include 35 Eastern Avenue (assessor's parcel 15-3), 29 Eastern Avenue (assessor's parcel 15-5), 15 Eastern Avenue (assessor's parcel 15-4), and the abandoned stub of Eastern Avenue that was the former bridge alignment (no assessor's parcel, ownership uncertain). It is envisioned that this may include public access to the intertidal zone inside the fendering that separates maritime traffic from the bridge abutments.



*Figure 5: Aerial View of Parcels Adjacent to the Chelsea Street Bridge*

As part of the design of this point access, the city wishes to explore improvements to the intertidal zone within the DPA, including habitat restoration and boardwalks, as well as inundation defenses, such as berms. These proposed improvements are consistent with the definition of water-dependent use contained in 310 CMR 9.12(2)(a)4, but are not explicitly water-dependent-industrial uses as defined in 310 CMR 9.12(2)(b). This harbor plan anticipates that it may be necessary and desirable for these improvements to occur within the DPA and seeks an amplification requiring applicants for Chapter 91 licenses to submit documentation to MassDEP that any proposed shore protection structures and flood,

water level, or tidal control facilities are designed to accommodate future sea level rise for the design life of any structures on the property in accordance with the City's standards.



## **APPENDIX L. LIST OF SUPPORTING DPA USES**

Note: The list below includes Supporting DPA Uses allowed in the Port District under the City of Chelsea Zoning Ordinance that have been determined through this Municipal Harbor Plan to be compatible with activities characteristic of a working waterfront and its backlands, in order to preserve in the long run the predominantly industrial character of the DPA and its viability for maritime development. To be licensable as a Supporting DPA Use, the proposed project must also comply with the definition of Supporting DPA Uses found in 310 CMR 9.02.

### **Commercial Uses:**

Municipal facilities

Essential services

Institutional uses, including marine research, education and laboratory facilities, not including overnight accommodations.

Planned development, excluding residential uses

Bakery, delicatessen, candy, fish, including accessory food service

Book, stationery, gift, clothing, dry goods, hardware, jewelry, or variety store

Convenience store with hours of operation not to exceed 5:00 a.m. to 11:00 p.m.

Convenience store with hours of operation exceeding 5:00 a.m. to 11:00 p.m., and/or with the sale of beer and/or wine

Gasoline sales with convenience store

Retail stores and services not elsewhere set forth

Major commercial project

Restaurant, fast food

Bank, financial agency

Personal service establishment

General service establishment

Parking facilities

Park and ride/park and fly facilities

Storage of vehicles for hire or return from hire

Trade and craft establishments

Health and fitness club

Marine-industrial related museum

**Industrial Uses:**

Moving company, less than 15,000 square feet gross floor area (2)

Moving company, 15,000 square feet or more gross floor area (2)

Light manufacturing

Wholesale business and storage in connection with wholesale business

Inside display and sale of merchandise by distributors or manufacturers

Life sciences research, development, and manufacturing

Manufacturing

Marine-related and supporting light industrial

Marine-related research, laboratories, and scientific development

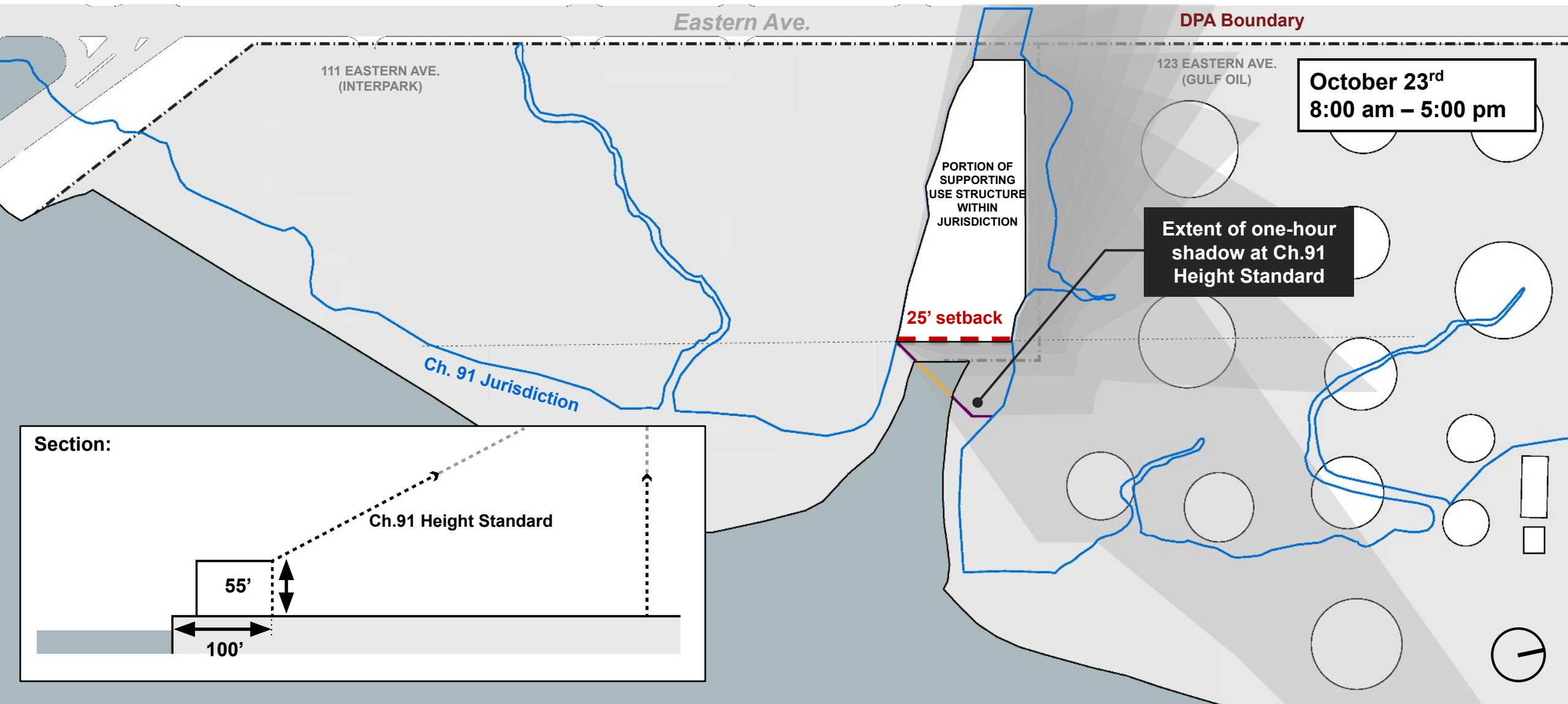
Marine-related wholesale business, warehousing and storage

Research and development, including related offices

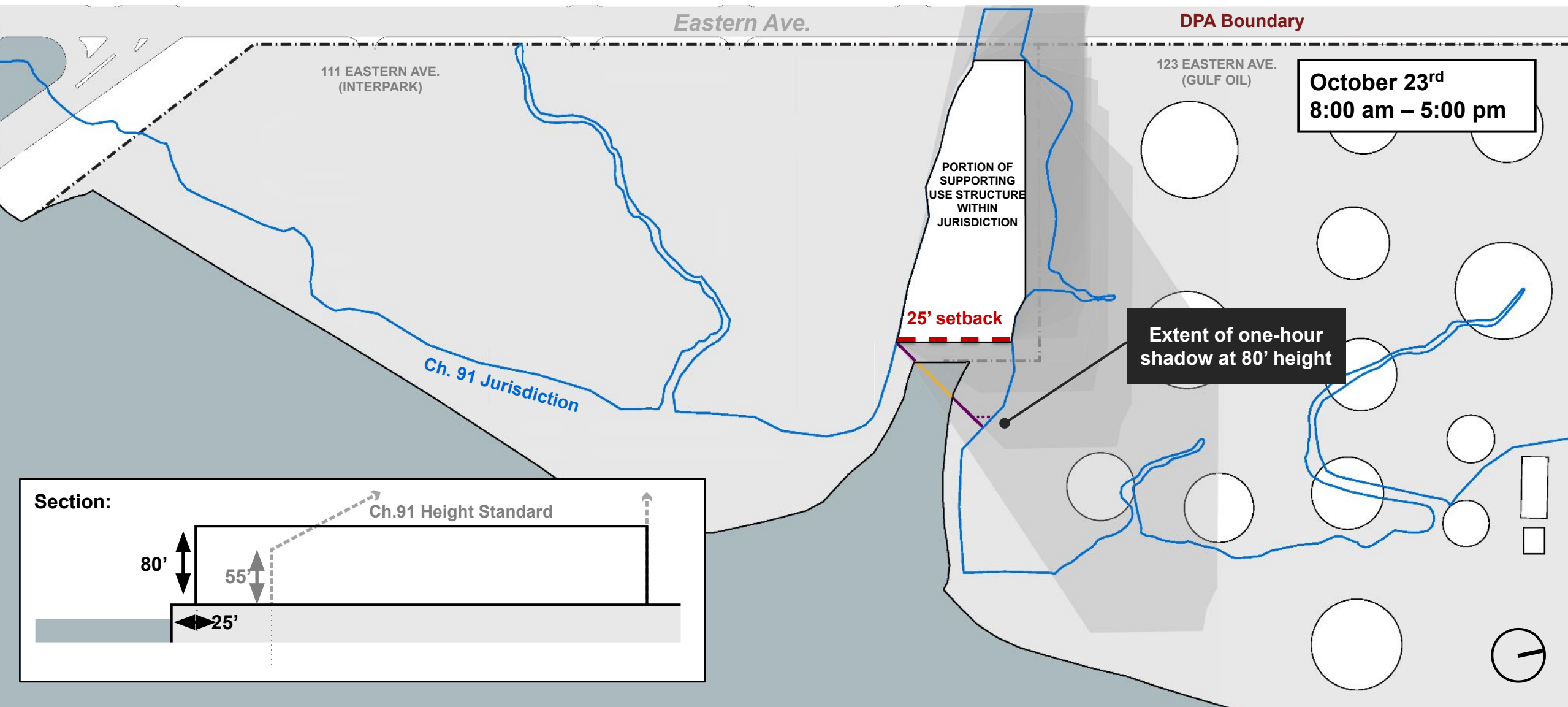
Industrial laundry

# APPENDIX M.

## One-hour shadow of supporting uses structure compliant with Ch 91



# One-hour shadow of supporting uses structure with 80' height substitution





Net new shadow **80'**

