



Raymond L. Flynn Marine Park Master Plan Update



City of Boston



Client

City of Boston
Economic Development and Industrial Corporation d/b/a
Boston Planning and Development Agency

Consultants

Utile
Nelson Nygaard
Durand & Anastas
Ninigret Partners
HDR
Byrne & McKinney
Noble, Wickersham & Heart
Stantec

February 2022

Table of Contents

Executive Summary	7
Introduction	9
1. The RLFMP in Boston’s Industrial Ecosystem	13
2. Marine Industrial Use: Its Role and Demand	19
3. RLFMP Infrastructure Evaluation	24
4. What We Heard: The Business Climate in the RLFMP	32
5. Planning and Development: Dynamics of the RLFMP	36
6. Transportation & Parking: Operational Impacts of New Development	48
7. A Sustainable RLFMP	60
8. Tactics for Implementation	66
Parcel Analysis	75
Appendix 1: Technical Memoranda	125
Appendix 2: Tenant Interviews & Survey Response	267
Appendix 3: Space Inventory	325
Appendix 4: Consolidated Written Determination Chapter 91 License Application	331



2022 Master Plan Update

The Raymond L Flynn Master Plan Update (“DMPU”) was submitted to EEA in December 2017 as a Notice of Project Change under the Massachusetts Environmental Policy Act to the Final Marine Industrial Park Master Plan EOE# 8161. The Secretary of Environmental Affairs issued a certificate for the Final Marine Industrial Park Master Plan on March 16, 2000. Pursuant to the Certificate, projects proposed outside of footprints shown on Figure 3-5 of the Final Master Plan that individually meet one or more MEPA filing thresholds must file a Notice of Project Change under MEPA. Also, pursuant to the Marine Industrial Park Master Chapter 91 License issued March 16, 2005 (No. 10233), Special Condition Number 1(d) any proposed structural alteration or change of use that is not authorized pursuant to the license shall require the filing of a Notice of Project Change to MEPA.

Upon submission of the DMPU the Secretary of EEA issued a Certificate on the Notice of Project Change and Master Plan Update EEA #8161 on January 19, 2018. The certificate directed MCZM and DEP to establish a public process to assist in evaluating the proposed changes set forth in the DMPU. MCZM and DEP formed an advisory committee to inform the public process. The committee met five times in between May and July 2019. Following the last advisory committee meeting there was a 30-day comment period. MCZM and MDEP reviewed feedback received during the advisory committee public process and from comment letters. EEA published a Notice Regarding the January 19 2019 NPC Certificate in February 2020 that included recommendations from CZM and DEP for additional analysis and details to be included in the Final Master Plan Update (“FMPU”).

The FMPU reflects the feedback received from the Notice and advisory committee process specifically how the FMPU supports existing and future water-dependent uses through three specific areas: capital investments in marine infrastructure, transportation planning and climate resilience.

Sections of the DMPU have been updated to reflect changes that have occurred since 2017, prioritization of marine infrastructure and integration in the BPDA’s capital plan, the development of a Marine Capital Reserve Fund, an updated transportation analysis and the BPDA’s climate

resilience plans based on the Coastal Resilience Solutions for South Boston including a climate resiliency infrastructure fund mechanism.

The following chapters have been updated to reflect changes and analysis based on the feedback received during the public review process of the DMPU:

Chapter 3 Infrastructure Evaluation including details on the BPDA 5-year Capital Plan and Marine Capital Reserve Fund

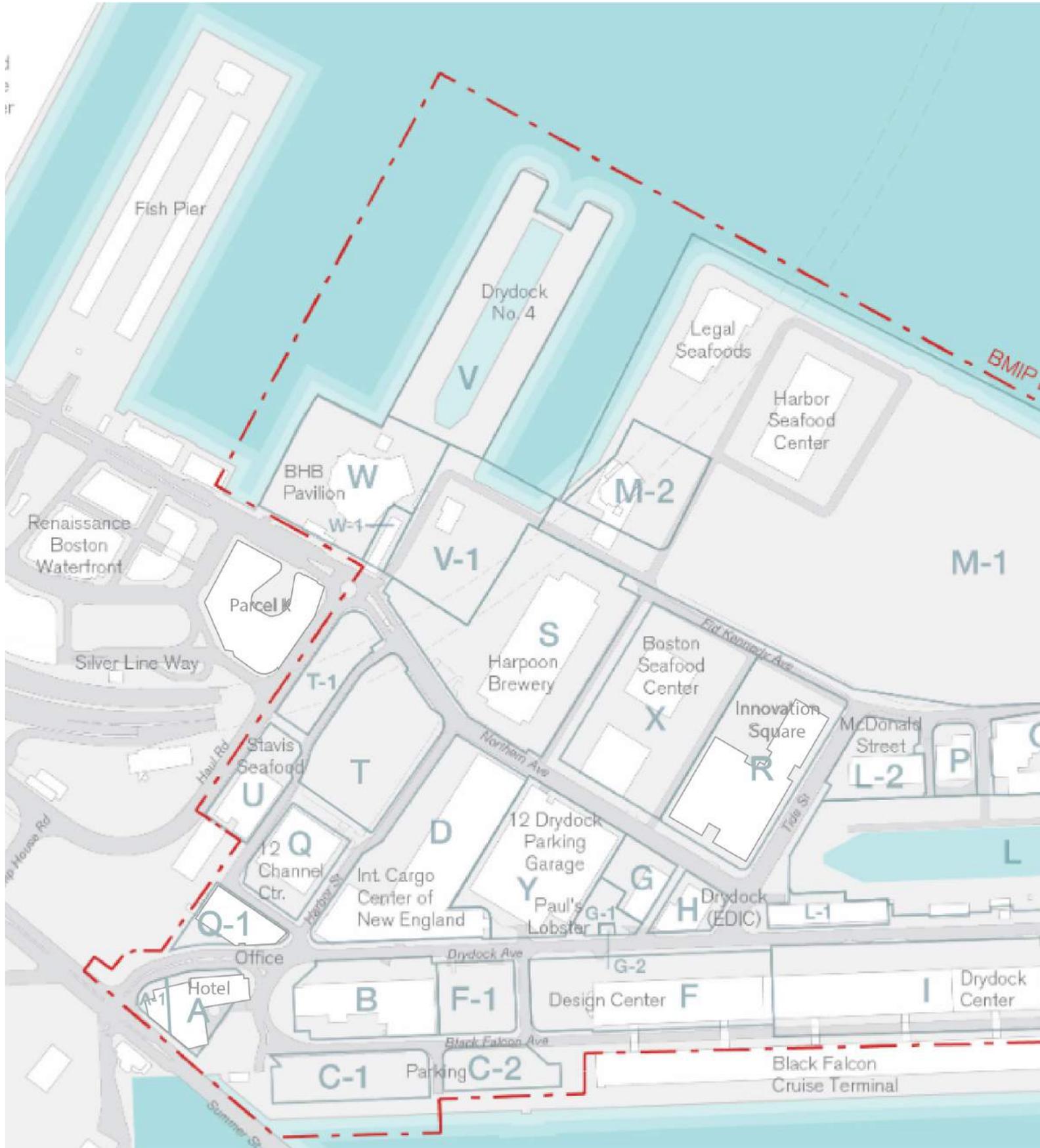
Chapter 5 Planning and Development: Dynamics of the RLFMP, including a list of changes that have occurred since the filing of the DMPU in 2017.

Chapter 6 Transportation and Parking: Operational Impacts of New Development, including updated transportation modeling and analysis. This section includes recommended transportation improvements needed to accommodate new growth in the RLFMP. Transportation improvements are also referenced in the BPDA’s Capital Plan and in Chapter 8 Tactics for Implementation.

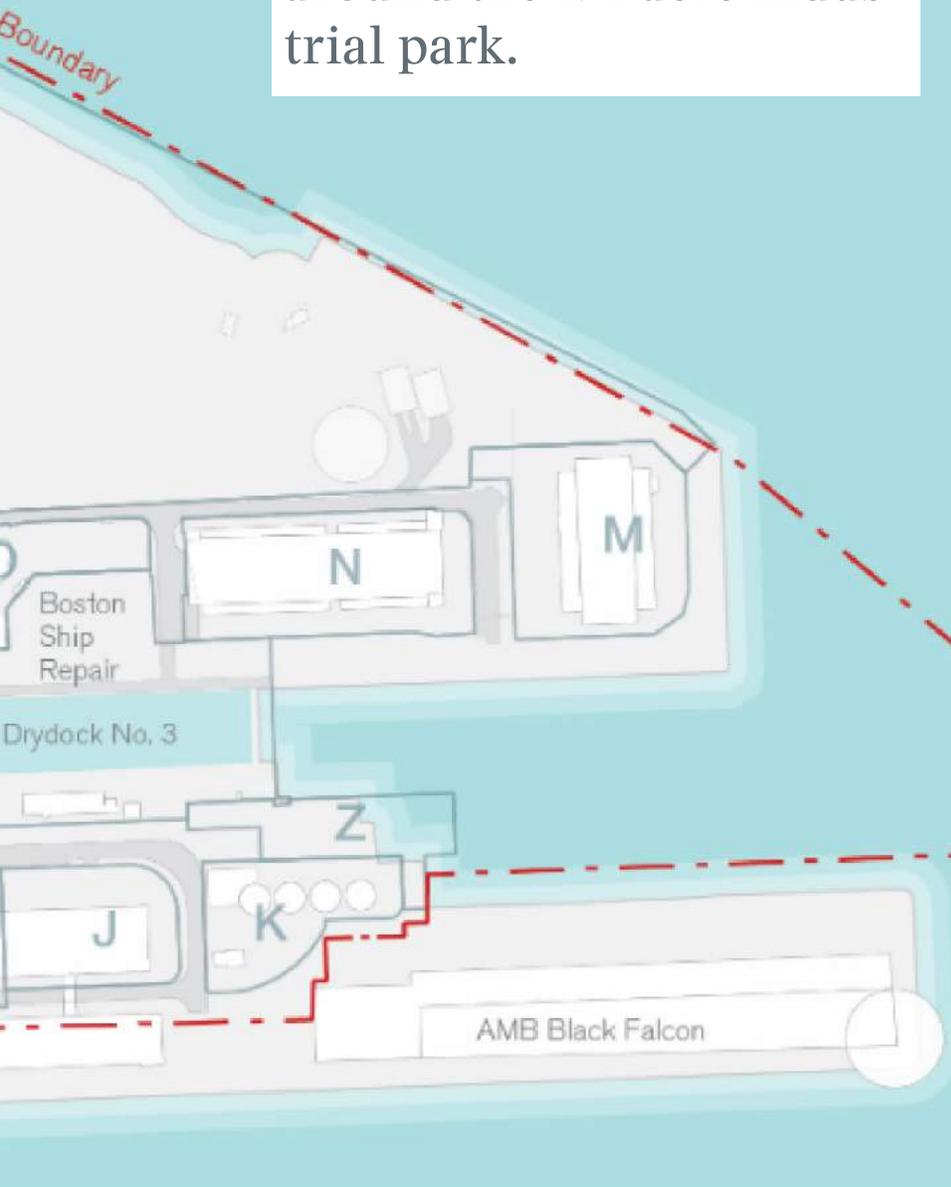
Chapter 7 A Sustainable RLFMP, including updated modeling and analyses that addresses sea-level rise and coastal flooding and the City’s green building and carbon neutral goals.

Chapter 8 Tactics for Implementation that includes a roadmap for regulatory and environmental review for new projects in the RLFMP

The Parcel Analysis has also been updated to reflect projected growth and also an updated Table 7. The parcel analysis incorporates changes in uses since the filing of the DMPU, including existing 2021 conditions, building footprints, building gross floor area, previously approved uses and proposed changes in use.



Since the completion of the first Master Plan for the Raymond L. Flynn Marine Park (RLFMP) in 1999 there have been significant changes and investments made in and around the 191-acre industrial park.



Executive Summary

Noteworthy public infrastructure improvements such as the Central Artery Tunnel Project, Boston Harbor Cleanup, the MBTA Silver Line Transitway, South Boston Bypass Road, Massport Haul Road, and Boston Convention & Exhibition Center have facilitated access, new development, and a dynamic mix of uses in the South Boston Waterfront District. Within the RLFMP there have been new facilities constructed to support seafood processing, motor freight, and ship repair, as well as a dramatic increase in new job growth sectors related to life sciences, advanced manufacturing, and research and development.

The RLFMP is unique in that it has a mission to serve as a reserve for industrial businesses and Boston-based jobs, which is bolstered by state regulations that require the majority of uses be marine industrial in nature. It is also an area with underutilized land and aging infrastructure, which is faced with new demands related to the rapid development in the South Boston Waterfront. As such, Imagine Boston 2030, Boston's first citywide plan in 50 years, has identified the RLFMP as a vital waterfront job center capable of generating significant job-growth in general and marine industrial sectors, provided thoughtful zoning is developed and significant investments are made in order to strengthen its position within the industrial ecosystem. It is within this context the RLFMP Master Plan Update endeavors to analyze the Park's existing infrastructure and uses and how best to leverage the demands of new innovation economy uses in and around the RLFMP, all to further the Park's mission and establish a sustainable land use road map for future years.

The Master Plan Update evaluates the role of the RLFMP in the Port of Boston and the City's industrial ecosystem and provides an economic and market based analysis of the potential for existing and new economy uses in the Park. This analysis delves into the RLFMP's unique attributes of deep-water berthing areas, an active dry dock, quick access to dedicated truck routes and

Logan Airport, as well as industrial-scale building assets. Outreach to existing tenants was conducted to better understand the opportunities and issues faced when conducting business in the Park. The limitations and challenges of RLFMP were also assessed, including parking restrictions, a transit system running at capacity, and aging waterfront industrial infrastructure.

A review of existing conditions in the RLFMP indicate it continues to sustain robust industrial uses such as ship repair, seafood processing, and design wholesale business clusters, along with small-scale manufacturing and life science research and technology companies. Although over two-thirds of the land use in the RLFMP is dedicated for marine industrial use due to the state's Designated Port Area requirements, there is currently little over-the-dock commerce and much of the shore-side bulkheads, dock, and cargo logistics infrastructure would require millions of dollars of upgrades to provide for such uses.

In identifying gaps in the port economy and attributes of the Park, opportunities do exist for a general purpose marine terminal and additional growth for ship repair which could function with Massport's adjacent Cruiseport Boston and development of their Marine Terminal; however, substantial public investment would be necessary to advance these facilities and infrastructure improvements. In reviewing market sectors well suited for the Park, contemporary flex-industrial space is in high demand within the region, which are generally buildings that can accommodate many uses over their lifespan. Drivers of near-term use demand with potential to grow in the Park include biotech, life science lab space, e-commerce, as well as local food businesses and advanced manufacturing.

As the economic analysis of the RLFMP has determined that water dependent industrial uses are in decline with no existing or near-term market opportunities for over the dock activity, the Master Plan Update frames planning and land use scenarios that build on the Park's strengths, and envisions a mixed industrial-commercial use district that is compatible with, and preserves the capacity for, water dependent industrial businesses. Market trends support several options for future uses that will advance the Park's mission, including, back-of-office and City-storage uses, service areas to support just-in-time service companies, lower-margin and emerging businesses with a need for proximity to the city, and businesses that tend to cluster to reduce transaction costs for buyers and to exchange knowledge.

To harness the development pressure around the park and its inherent real estate value, a redevelopment approach is advanced for a multi-story, mixed-use building typology that has actually existed in Park for some time. This building framework is one that establishes and requires high-bay industrial space on the ground floor and a range of upper-floor uses, such as research and development, light industrial and office that are compatible with water-dependent industrial uses. The upper-floor uses will provide increased rents that can subsidize the ground-floor industrial businesses and facilitate reinvestment in Park infrastructure. The intent is for this building arrangement to preserve the capacity for water-dependent industrial uses, should they return, and sustain existing industrial jobs in the RLFMP. Other sites that may be better suited for exclusive general industrial use including lab space will support offsite marine industrial uses and infrastructure through lease payments and contributions to the Maritime Capital Fund. The Master Plan Update includes recommendations on how state Waterways Regulations can better function to facilitate this flexible mix of uses, as well as an analysis of the parking and transportation limitations and management strategies needed to advance the model.

The RLFMP will also be challenged by future sea level rise and storm surge due to the area's proximity to the harbor and its elevation, which will require innovative and resilient solutions with new development design and infrastructure improvements. The energy-intensive industrial uses in the RLFMP also provide an opportunity for district-scale energy production and distribution which have the potential to improve resiliency and efficiencies for businesses in the Park.

As the RLFMP continues to develop there is a need for more open space and improved pedestrian networks to accommodate new businesses and employees. There may be opportunities to expand open space and perhaps integrate RLFMP public access areas into the broader open space system of the South Boston Waterfront, particularly through the Harborwalk network. By reviewing the various planning layers and the parcel and planning analysis of the RFLMP Master Plan Update, we begin to see opportunities for expanded open space and public facilities in the Dry Dock No. 4 and Parcels W and V1 area.

The following Master Plan Update provides a focus and recommendations on how best to preserve an industrial base in the Park and support existing business clusters while integrating new commercial and light industrial uses that will facilitate reinvestment and support and grow the RLFMP.

Introduction



The economic and development landscape in the South Boston Waterfront is rapidly changing.

The following Master Plan Update serves as a Notice of Project Change under the Massachusetts Environmental Policy Act to the Final Marine Industrial Park Master Plan EOE #8161. The Secretary of Environmental Affairs issued a certificate for the Final Marine Industrial Park Master Plan on March 16, 2000. Pursuant to the Certificate, projects proposed outside of footprints shown on Figure 3-5 of the Final Master Plan that individually meet one or more MEPA filing thresholds must file a Notice of Project Change under MEPA. Also, pursuant to the Marine Industrial Park Master Chapter 91 License issued March 16, 2005 (No. 10233), Special Condition Number 1(d) any proposed structural alteration or change of use that is not authorized pursuant to the license shall require the filing of a Notice of Project Change to MEPA.

The South Boston Waterfront has become a focus of development, attracting corporate headquarters, consulting firms, lab/life sciences, and tech startups, successfully selling an urban lifestyle brand and assembling a concentration of a highly skilled workforce. The majority of this growth has happened since the last master plan for the Raymond L. Flynn Marine Park in 1999. The South Boston Waterfront is on its way to being built-out, and the RLFMP is attracting a workforce that was unanticipated at the turn of the 21st century. Still, throughout this transformation, a robust concentration of industrial businesses in the RLFMP remains.

The purpose of this Master Plan Update is to evaluate the position of the RLFMP within the greater context of the Port of Boston and to determine the relevancy of the industrial, and in particular the marine industrial economy, within the RLFMP. The preservation of an

industrial base amidst change, which is the intent of the Boston Planning & Development Agency (BPDA, formerly the Boston Redevelopment Authority and the Economic Development Industrial Corporation of Boston), will provoke further study about how future development and infrastructure can help to support the ongoing industrial activity.

Evaluating existing infrastructure and its suitability for additional industrial uses, and more so marine industrial uses, is necessary as a part of this Master Plan Update. Of equal concern is the ability of the RLFMP to accommodate potential tenants and new development, particularly those with a high parking demand despite the presence of a transportation network geared toward truck traffic and a ban on parking expansion due to the South Boston Parking Freeze.

Lastly, the BPDA must find revenue to fund the needed infrastructure improvements that can attract marine industrial uses, if this remains a focus by the State and the City. The BPDA alone is not able to pay for massive infrastructure upgrades needed, and the demand for water dependent use is indeterminate. This being the case, the Master Plan Update provides recommendations on how revenue can be generated to help subsidize needed infrastructure improvements and help maintain marine industrial uses in the park. This will require an inevitable compromise and conversation between ongoing commercial development pressure and the need to preserve an industrial employment base and any future maritime industrial uses.

Intent of the Master Plan Update

Since 1999—the last time the BPDA prepared a master plan for the RLFMP—there has been modest ground-up development in the RLFMP. Examples include the Legal Sea Foods processing facility, North Coast Seafood, the commercial office building at 2 Drydock Ave, the hotel at Parcel A, the redevelopment of Parcel N for Cannistraro, and 5-11 Drydock Avenue. This relative lack of activity is the result of the development economics of urban industrial areas. Industrial rents are not high enough to finance new construction in urban areas where construction costs are relatively high.

Meanwhile, the existing building stock is aging and in many cases has exceeded the lifespan of post-war industrial facilities. This unsustainable situation of aging industrial building stock is compounded by the Commonwealth of Massachusetts (hereafter referred to as "the State") use regulations of a Designated Port Area (DPA) that require a certain percentage of Marine Industrial uses. Except for the Boston Ship Repair, Coastal Cement, Yankee Lobster, and Cruiseport Boston (Cruiseport is technically outside the RLFMP boundary on Massport property), there are



currently minimal over-the-dock businesses within the RLFMP. The preservation of port activities was the original impetus for the DPA policy, but even with the protections provided by regulations, there is minimal interest in real estate in the district from businesses that might take advantage of water access and waterside infrastructure at this time. The lack of interest in "over-the-dock" businesses has meant that the condition of piers and waterfront infrastructure has deteriorated. Even if an "over-the-dock" use wanted to locate within the RLFMP, the repair of the jetties at Parcels M1, M, N and L, as well as Dry Dock #4, would require tens of millions of dollars of reinvestment.

Against this backdrop, and with the goal of preserving the RLFMP as a vital city-center industrial district, the Master Plan Update proposes an approach that will **encourage the market to build new state-of-the-art industrial space, and provide a source of revenue that can be reinvested in the park to improve both truck access and necessary repairs to the crumbling infrastructure along the waters' edge.**

Building on Past Work

The Raymond L. Flynn Marine Park Master Plan Update draws from, and builds upon, recent studies completed for South Boston and the Port of Boston. Our work places the RLFMP within the context of these plans. This plan also serves as an update to the 1999 Master Plan, which resulted in the 2005 Chapter 91 Master License Amendment.

1999 Raymond L. Flynn Marine Park Master Chapter 91 License Application and 2005 Chapter 91 License Amendment

The Master Plan that was conducted in 1999 went through a process of a similar evaluation of the condition of the

Marine Industrial Park, identifying existing conditions, parcel analysis, transportation planning, and infrastructure evaluation. The outcome of the process was the recommendation for new zoning for select parcels within the RLFMP, primarily those that are landside near the Summer Street entrance. The classification of Waterfront Commercial uses is part of the reason why new development for hotel and commercial/office is constructed or underway on Parcels A and Q-1. Further, the Master Plan outlined the manner by which future projects would be approved depending on the type of project, any change in use, and its impact on the allocation of uses in the RLFMP.

South Boston Waterfront Sustainable Transportation Plan (2015)

The South Boston Waterfront Sustainable Transportation Plan took a broad look at the current conditions and future growth scenarios of the South Boston Waterfront and the impacts on mobility. The plan analyzed everything from the public realm and pedestrian connections to truck traffic, roadway capacity and a reconfigured entry into the RLFMP from the Haul Road directly to Drydock Ave. Ultimately, it provided recommendations in the short, medium and long-term for improvements to the South Boston Waterfront transportation infrastructure and logistics. One important recommendation is connecting E Street to Summer and Cypher Streets for truck access to and from the Haul Road. It also recommended future water transportation options to open up new channels of transit ridership to/ from the South Boston Waterfront. Establishing an organizational structure to coordinate and expand water transport options with the Boston Harbor is necessary.

This report was a reference for our transportation analysis when it came to understanding the traffic impacts outside the RLFMP as to how they related to efficient movement of vehicles in and out of the park. It will be an ongoing resource to understand how the park operates within the larger context of South Boston and what improvements in South Boston can help the industrial park operations, particularly alleviating congestion and improving transit frequency.

Massport Economic Impact of the Port of Boston (2014)

The Economic Impact of the Port of Boston report, released by Martin Associates, was used by our consultant team to help establish how the RLFMP fits within the larger Port of Boston industrial complex. It was also used to understand how great port trends at a regional level relate to the Port of Boston. The growth sectors identified in the Port of Boston plan were used to determine their applicability to the RLFMP and the potential of the RLFMP to capitalize on any recent trends or maritime uses that may be accommodated at the RLFMP.

Much of what was identified as current and future trends in the report would require the RLFMP to make signifi-

cant infrastructure upgrades at the M1 parcel for water dependent uses.

Coastal Resilient Solutions for South Boston (2018)

To protect the South Boston community, jobs, and infrastructure, coastal resilience solutions across South Boston combine existing green spaces and built water management systems with new open space intended to be expanded over time. These measures include elevated waterfront open spaces and Harborwalk, reinforced structures and piers, flood walls, dunes, and a living shoreline that will grow and change over time. Achieving these measures will require public investments, private action, and support through regulatory change.

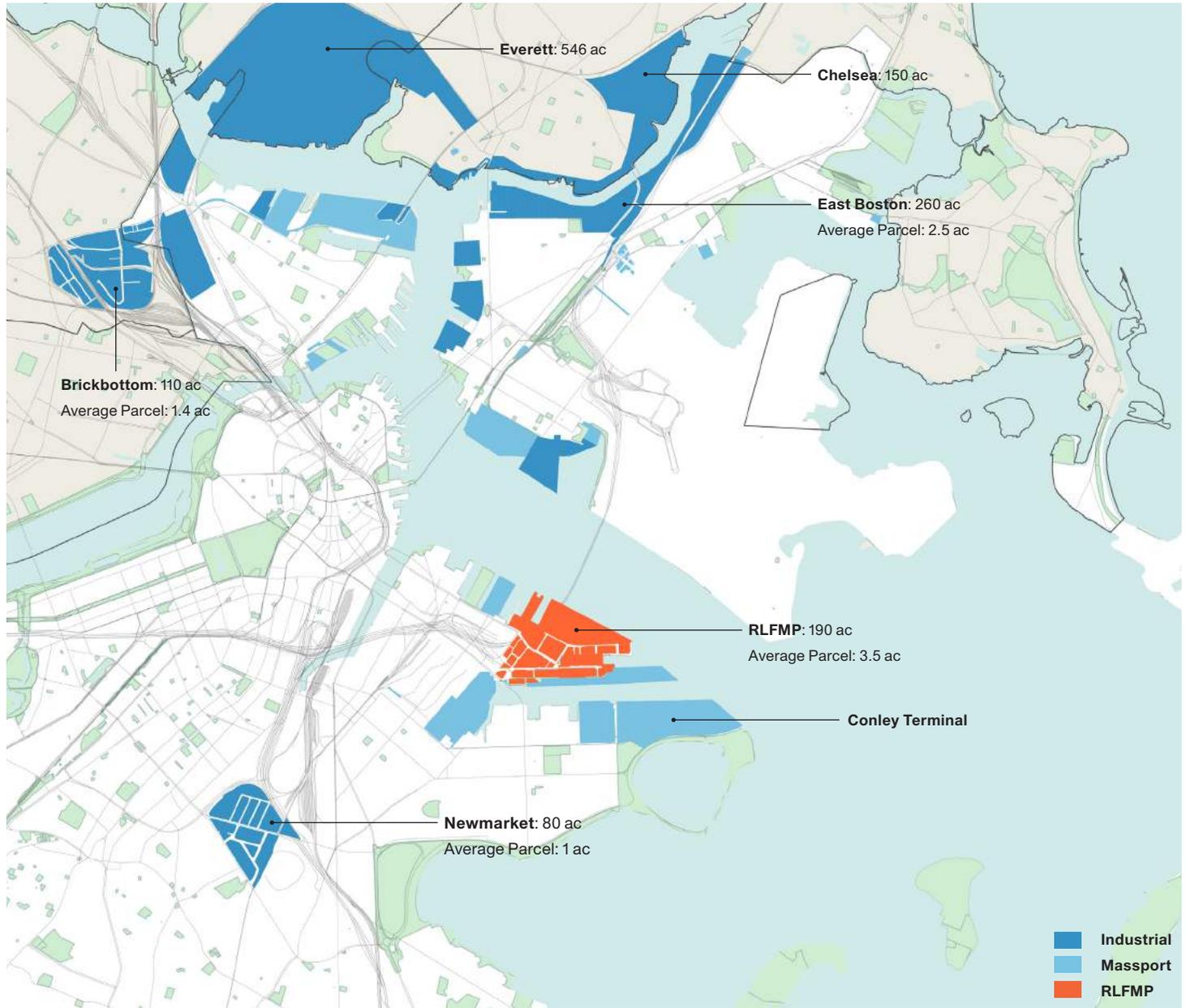
We examined two alignment alternatives for the Raymond L. Flynn Marine Park and Reserved Channel: Option A provides flood protection along the perimeter of the Raymond L. Flynn Marine Park, and Option B aligns flood protection along interior roadways to cut off a flood pathway. Option B would require floodproofing as a first line of defense for many structures, as well as other actions to protect access and egress. Option A is recommended for further evaluation.

South Boston Seaport Strategic Transit Plan (Nearing Completion)

The South Boston Seaport Strategic Transit Plan will identify specific recommendations to improve the operations and capacity of the transit network serving Boston's Seaport District. The Plan will study current transit connections and recommend specific improvements in the short-term, as well as for the next 15 years and beyond. The plan is being undertaken by the City of Boston, led by the Boston Planning and Development Agency with support from the Boston Transportation Department. Partner agencies include the MBTA, MassDOT, Massport, Massachusetts Convention Center Authority (MCCA) and Seaport TMA. All will be key team members with roles in implementing the recommendations.

Additional Referenced Reports

- Climate Ready Boston
- Go Boston 2030
- Silver Line Capacity Study
- Preparing for the Rising Tide: Boston Harbor Association
- C1 C2 Parking Garage Feasibility Study
- TIGER Grant Application: Track 61
- Collective Waterside Infrastructure Evaluations
- Massport Marine Terminal Development Issues and Alternatives Analysis
- Passenger Water Transit Alternatives White Paper
- Economic Development Plan for the Boston Marine Industrial Park
- South Boston Waterfront Public Realm Plan
- 2000 South Boston Waterfront Municipal Harbor Plan
- Imagine Boston 2030: Expanding Opportunity
- Imagine Boston 2030: Waterfront Assessment & Vision



The RLFMP (in orange) plays an important part in the role of industrial districts in the City of Boston and its port. Industrial districts, such as the RLFMP rely heavily on available highway and port infrastructure, including Logan Airport.

The RLFMP in Boston's Industrial Ecosystem

The Raymond L. Flynn Marine Park was developed as a preservation zone for industrial uses, particularly those focused on a marine industrial economy.

The original intent of the RLFMP was to establish a haven for blue collar jobs and an urban industrial base. This mission remains despite continued pressure from commercial development in areas like the South Boston Waterfront District, as well as a changing employee demographic in the RLFMP itself, where a younger highly trained and educated workforce is moving in. Tenants such as Autodesk, and well established life science startups in 27 Drydock Ave, represent this change.

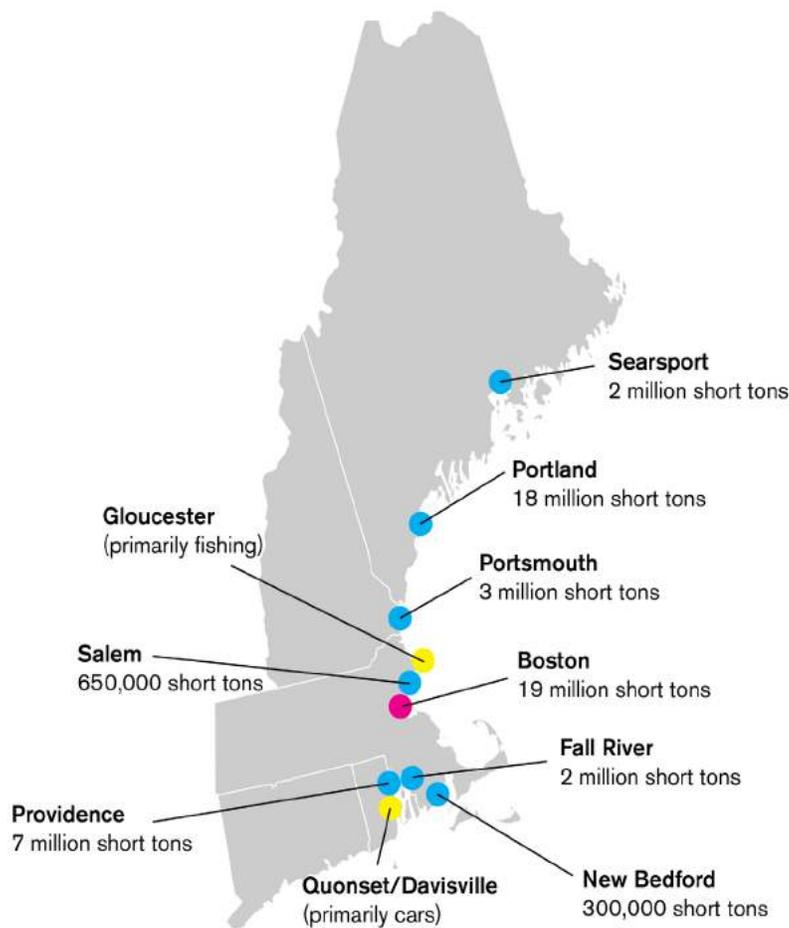
As the RLFMP continues to maintain its strong industrial economy, such as the robust seafood cluster, small scale manufacturing and design wholesale, it is also attuned to the newer industrial demographic that includes life sciences, technology and research. All of these latter uses are considered industrial by classification. The impact on the traditional industrial sector is that these businesses can afford higher rents than a traditional business, and at an operational level they function more like a traditional office with respect to employees per square foot and thus parking and transit demand.

The primary challenge for the RLFMP is how it can maintain its mission as a haven for industrial—in particular marine industrial—uses, while accommodating demand for commercial and light industrial space.

Mechanisms that can accelerate improvements and financial investments in the industrial and marine industrial infrastructure should be explored. In particular, how can the BPDA leverage future investment by commercial interests to help fund needed infrastructure repairs? A measured and compatible approach to planning for both types of uses is the intent of the Master Plan Update.

In order to understand the current economic state and industrial complex of the RLFMP, it must be viewed in the entirety of Boston's port and industrial activity. The Port of Boston, once a robust maritime industrial port, has slowly seen a true "over-the-dock" industrial economy shrink; however, not at the expense of the categorical Marine Industrial economy. That said, each port area district, such as Chelsea, Charlestown and Conley Terminal, is unique in its import and export economy.

To understand the dynamics of the RLFMP within the larger "industrial ecosystem" we have collected and analyzed information on high-level, broad economic trends and indicators of relevance to the Port of Boston and RLFMP. We have also analyzed other regional ports that are potential competitors to the Port of Boston and its facilities. Finally, we provide an overview of the maritime shipping, fishing, and cruise industries.



New England Port Locations
 Yellow: Purpose Built, Blue: Mixed

A recently completed Massport study that examined Massport's holdings, contribution to the local economy and position within the port economy concluded that in 2018, 66,091 jobs were in some way related to cargo, cruise, seafood processing, and harbor tours and marina activity within the Port of Boston. These are all activities that occur within the RLFMP or immediately adjacent to it at the Cruise Terminal and Conley Terminal.

Port of Boston Assessment

The economic analysis performed to assess Port of Boston trends and to forecast future opportunities was completed based on data available in 2017. It is expected that the findings from 2017 are substantially consistent with the status of the Port of Boston in 2022.

Like most other regional ports in the area,

Chemical Products are the largest cluster (by tonnage) of imported commodities into the Port of Boston. Many of these products are being transported via container and then distributed across Boston and New England. Most of the businesses are likely consumer-based and benefit from lower transportation costs because they are located near the port. Also like many other regional ports, Metal Manufacturing cluster commodities represent the largest exports by tonnage leaving the Port of Boston by vessel.

Imports

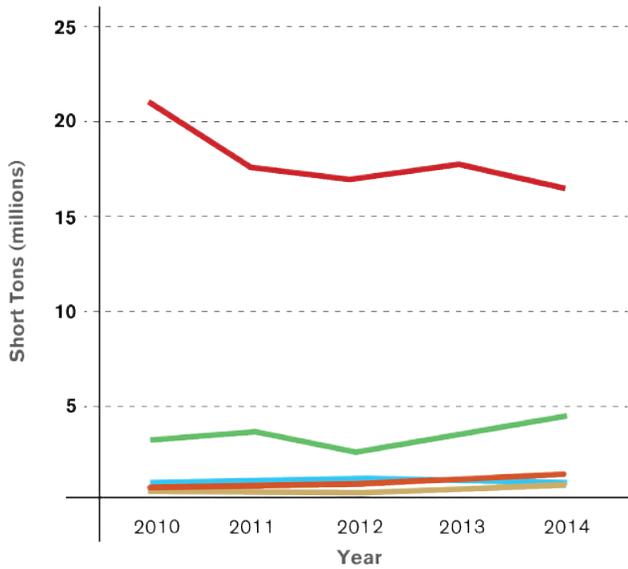
Chemical Products (primarily fuel), which are not appropriate for the RLFMP, remained the top imported cluster. The total weight of the Port of Boston's imports has decreased every year since 2010, from a high of 11.7 million short tons in 2010 to 8 million short tons in 2014 (32 percent overall decrease).

Exports

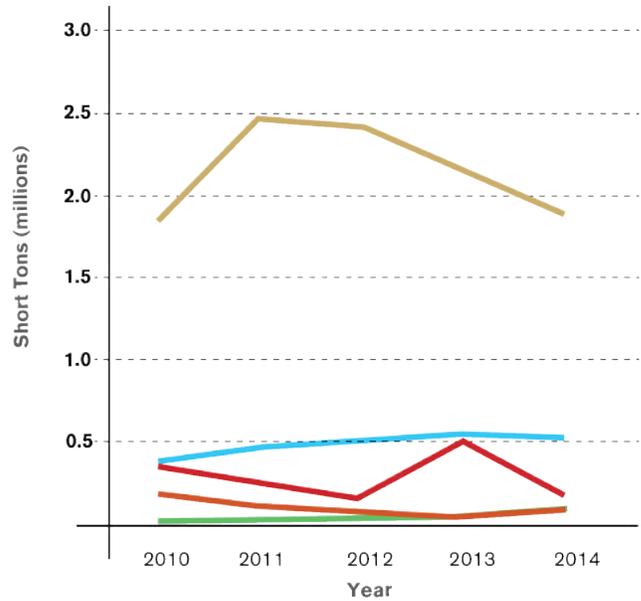
In 2014, the total weight of commodities exported from the Port of Boston totaled approximately 1.4 million short tons, all of which traveled via vessel. This represents a decrease of 2 percent compared to 2010, and 12 percent compared to 2013. Between 2010 and 2014, the top cluster exported remained the same. Metal Manufacturing is by far the top exported cluster (approximately 45 percent of total weight of commodities exported in 2014). However, it is important to note that the total weight of exports for this cluster has declined considerably from 824,000 short tons in 2010 to 630,000 short tons in 2014 (a 24 percent decrease).

Opportunity Sectors at the RLFMP

The economic analysis' intent was to understand where the RLFMP fits within the large industrial context of the Port of Boston. By defining gaps in the port economy and attributes of the RLFMP that might accommodate latent and active demands, we can begin to position the RLFMP in the port today. The RLFMP's deep water berthing capability, ample waterside property (much of which is owned or long term leased by Massport), active ship repair and adjacent cruise ship operations are all water dependent industrial uses that have potential for growth. However, there are outstanding challenges, such as the cost of waterside infrastruc-



Automotive
Chemical Products
Construction Materials
Metal Manufacturing
Processed Foods



Publishing and Printing
Chemical Products
Forest Products
Metal Manufacturing
Processed Foods

ture repairs, the availability of space at competing regional ports and Conley Terminal, and the lack of immediate rail freight possibilities. Our analysis saw potential (albeit more potential in some cases than others) in the RLFMP accommodating a general purpose marine terminal, additional growth for ship repair and providing services for the growing cruise industry at the Massport Cruise Terminal.



Cargo at the RLFMP

One of the gaps in Boston’s capability to serve as a full-service port is the lack of a general purpose marine terminal, which could handle a wide range of cargoes including perishable cargo, break bulk cargo, neo-bulk and bulk. These types of facilities provide value added cargo services, such as warehousing, reefer storage, government order warehousing (for inspection and bonded control), trans-loading and other related cargo services. Most regional ports are able to handle this type of cargo, however factors such as Boston’s port and labor costs make it marginally less competitive than some of these other ports. Many other New England ports utilize non-union labor and have different work rules in place than Boston.

Nonetheless, Massport and BPDA both share the Marine Industrial Park North, East and South Jetty areas. This property is significant in that it represents the only area in the port area where a general cargo facility could be developed if desired. However, potential development of these areas at the RLFMP is hampered by the highly deteriorated condition of the waterfront infrastructure along the property.

In addition to a general purpose marine terminal, there are several other potential marine uses for this property, which do not necessarily require deep water access, but do support maritime industrial uses. Based on what competing regional ports are handling, as well as historic trends, underutilized properties in the RLFMP could potentially be developed to provide the following services:

1. Reefer container storage.
2. Container chassis storage.
3. Frozen and chilled perishable cargo processing and storage for agricultural products.
4. Reefer container trans-loading for perishable cargo.
5. Storage and trans-loading of grain, legumes, pelletized hay and similar agricultural products.

6. Trans-loading of heavy weight rail cars carrying wood and paper products; if a rail line was extended into the property.
7. Neo-bulk cargoes such as timber, processed lumber products, and aggregates.
8. Project cargoes (e.g. construction equipment and materials, wind turbine components, power generation components, military equipment and material).
9. Government Order Warehousing for cargo that has not cleared US Customs including containerized cargo, cargo requiring additional inspections, or bonded cargo.
10. Empty container and chassis storage.



If it was desired to construct a general marine terminal in an effort to be a full-service port, a number of improvements would need to be made. Because there is a demand for these cargoes in the region, a number of smaller ports in New England have been focused on developing general cargo opportunities. Some of these cargoes, demanded in the Boston area, are currently handled in other ports and then transported via truck to the greater Boston.

It appears that the private sector may be unable to develop this combined property into a potential facility, as evidenced by the long-standing but unexecuted plans of the business previously entitled to redevelop the property into a marine use. As a result, the public sector may be in the best position to undertake this development if it is desired. Once infrastructure and other improvements are completed by Massport and BPDA, the terminal can be leased out for use or operations managed by Massport.



Cruise

The number of cruise passengers between 2013 and 2014 decreased by 17 percent with the Port handling nearly 317,000 passengers last year, compared to 383,000 in 2013. This does not, however, indicate a weakening of the trade, only a market shift that occurs regularly. While Boston is a tourist destination for the Canada-New England cruise market, the port's key strength is its turn-around or homeport trade

accounting for 60 percent of the trade. Boston's key advantages include its proximity to Logan International Airport and the wide range of air services available. Passenger parking and experience require additional attention.



Ship Repair

Boston has a unique asset in its large vessel shipyard facility, located at the RLFMP. Managed by Boston Ship Repair and owned by Cronin Development, the facility is the largest in New England. The shipyard would benefit from the addition of its own wet berth with vessel support hookups. This could potentially be accommodated at the jetty berths on the Massport Marine Terminal and BPDA properties.

To remain viable, the shipyard needs additional laydown area, shop space, a wet berth (not encumbered by other vessels not being repaired) equipped with full utilities, and a power system upgrade. These upgrades would require some, if not all, public funding assistance.

Boston Ship Repair would also be interested in handling small vessel repairs if space and a shop area could be provided near the facility. This would include the addition of a small floating dry dock. The biggest challenge, however, remains gentrification. As local non-maritime activities encroach on the dry dock footprint, activities such as hull blasting and painting are becoming more difficult. A stipulation of the expected impacts from hull blasting and painting should be considered in lease agreements with existing and future tenants.

Since 2017, the BPDA has undertaken several actions to support the ship repair, including helping to secure two rounds of Seaport Economic Council grant funding to update the drydock's systems. The BPDA also partnered with Boston Ship Repair on the disposition of underutilized property on Parcel L, with a proposed revenue share agreement that would expedite infrastructure improvements. There is also design work underway for the rehabilitation of the South Jetty to enable a wet berthing area for Boston Ship Repair.

The market demand for ship repair is unique, and Boston hosts the only major dry dock facility in New England capable of handling a large vessel. Ship repair in Massachusetts accounts for 500 direct and indirect jobs. To build on the existing shipyard, the improvements highlighted above should be made. BPDA's development of a long term capital improvement plan is a good first step in ensuring that the marine infrastructure that is located at the RLFMP continues to be maintained in a state of good repair and opportunities for expansion of marine activities, like ship repair, are accommodated.

Summary

Based on data analysis and interviews conducted for this study, opportunities exist to expand the cargo (general purpose marine terminal), cruise, and ship building activities in the RLFMP. The most significant limitations for the BPDA/Massport marine-oriented facilities in the RLFMP is continued transformation of the area including emerging business sectors and the level of investment in infrastructure that is needed for some of these marine activities. The increasing demand for public space, development of non-maritime activities, increased traffic congestion, and environmental limitations present in the facility adversely impact significant sectors of marine industrial activity and its potential for growth.

This analysis was primarily focused on port-side opportunities, and doesn't entirely encapsulate the full economic development potential at the RLFMP, nor its full marine industrial development potential, for that matter. We will further focus on the role and demand for marine industrial uses in the RLFMP in the next section.



Above: Boston Ship Repair facility as seen from the South Jetty waterfront. Above left: Massport Cruise Terminal



Marine Industrial: Its Role and Demand in the RLFMP

Marine Industrial Uses define the majority of uses in the RLFMP by square footage; however, their dependence on waterside access is minimal.

The era of large scale "over-the-dock" fishing operations has dwindled significantly in Boston, and in Massachusetts, in general.

The majority of fish that is brought into the Raymond L. Flynn Marine Park is by truck. This leaves our common understanding of marine industrial uses relegated to more specialized operations. Often, true water dependent uses are ship repair, cruise operations, freight cargo, scrap, marine research, and fishing, such as the remaining fishing fleet in Gloucester or New Bedford.

Marine industrial uses that rely on waterside access require the appropriate infrastructure to be in place to carry out their operations. The upfront costs involved in the preparation and maintenance of this infrastructure will likely not be paid for by the business that will be using it, making it difficult to attract new users. The RLFMP, in particular, faces difficulty in this respect since Conley Terminal has absorbed any near and long term demand for cargo/over-the-dock uses and much of the current state of waterside infrastructure at the RLFMP

is in need of repair. All of this is to say that water-dependent uses that rely on waterside access in the RLFMP are limited.

Defining Marine Industrial Uses

Based on the DPA requirements concerning the preference given to marine industrial uses, it is important to consider the difference between various forms of "marine industrial" uses. One form of marine industrial use is a requirement for direct "over the dock/on to the water" access to execute operations. The second form of marine industrial is based on an historical perspective, such as the traditional close physical linkage between the fishing fleet and seafood processing. However, improvements in logistic capabilities has allowed one part of the value chain (the fishing fleet) to no longer require co-location with the downstream activities (processing). Therefore, it is important to consider these distinctions when discussing demand for the RLFMP as

a “marine industrial” park.

For purposes of this discussion we have organized marine industrial into two categories:

- **Water Dependent Marine Industrial:**
An industrial or logistical activity requiring direct access to the water to execute its business. Examples include; ship building and repair, cargo carried by vessels, offshore energy landside connectivity, energy production requiring fuel carried by vessels, commercial fishing and cruise operations.
- **DPA Marine Industrial (Categorical Marine Industrial):**
Activities defined by state law and regulation that may have an over the dock requirement or a historic requirement for water access that is no longer needed. For example seafood processing and wholesaling, and vessel components.

The approach to demand considers these two different perspectives on “marine industrial”.

One important consideration when evaluating demand for marine industrial uses is the flexibility of building and infrastructure typologies. Can the infrastructure be used for something else if anticipated demand does not materialize thereby reducing risk? And of equal importance, “can the activity be acceptable within the context of the DPA”? This approach may, for instance, allow for the potential growth of the seafood cluster, considering it has the same general space requirements as many general industrial tenants. Depending on the future of the seafood cluster and its advantageous position near Logan Airport, any general industrial use now would not prevent its growth in the future.

Many of the activities in the DPA categorical marine industrial classification (such as seafood processing and distribution) take place in buildings that are indistinguishable from contemporary non-marine industrial and logistical facilities. From a demand and development risk profile the buildings are not functionally limited to marine industrial uses. Therefore, overall industrial demand should be considered just as much as marine industrial demand.



Prototypical single story industrial buildings (seen above and below) can be used for a variety of industrial activities, which allows for a flexibility in use. Buildings used for seafood processing are indistinguishable from those used for other industrial facilities.



Massachusetts Strategic Plan “trade has fluctuated over recent years and dedicated ocean service has not been sustainable.”

Massachusetts possesses 77% of the cold chain capacity in New England, but ports such as Portland ME are adding capacity. Several of these fresh food facilities are in or near Boston. In Boston proper, there are areas under publicized development pressure, such as Widett Circle. These industrial operations need to be in an urban core to distribute to a local population and have access to regional highway systems; however, as land prices increase, it becomes more difficult for industrial businesses to afford rent in the urban core.

• **Previously Owned Cars:**



Five ports in the Northeast including Boston export previously owned cars. AutoPort Boston, in Charlestown, added storage capacity and can handle 70,000 cars annually. Since previously owned cars do not require rail service, this may be an opportunity for the RLFMP. The key driver is the availability of land for cars awaiting shipment.

However these operations are highly sensitive to costs and the amount of activity maybe directly related to the activity levels of the auto import business due to the backhaul considerations for Roll On/Roll Off car carrying vessels.

• **CruisePort:**



CruisePort forecasts show potential growth of 70k to as much as 410k passengers. Expansion of parking and staging will be required to accommodate this growth. It is possible that expanding the existing garage onto parcels G and G-1 or a new garage on the C1/C2 parcels could provide additional parking for current and future demand.

• **Ship Repair:**



The remaining active drydock (Drydock #3) may have the potential to serve a ship repair facility focused on larger vessels unable to be accommodated by the shipyards in Gloucester, Fairhaven and other locations. With the existence of the Boston Yacht, there is potential to service large mega yachts (100ft+) requiring drydock-type services. There are at least 210 vessels offering regular charter service from New England with an estimated 600-800 cruising New England and Atlantic Canada.

A constraint on this—based on the current waterside infrastructure—may be the relative lack of apron space around the drydock as well as its location to perform some of the maintenance tasks of these vessels.

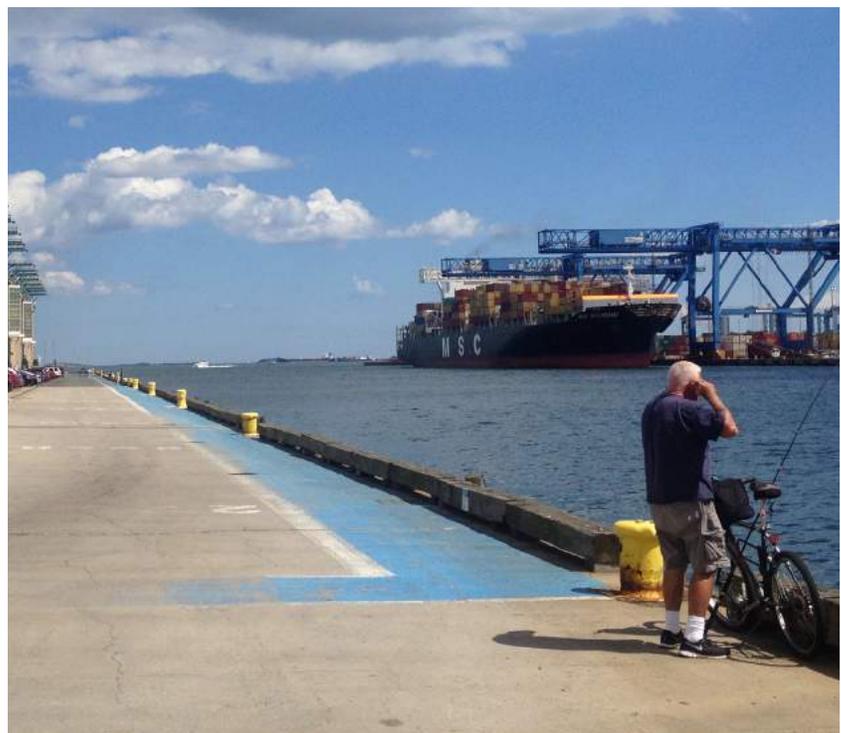
• **Containerized Cargo:**



Conley Terminal underwent an expansion, giving it the capability to double its capacity to 450,000 TEUs. Based on examination of manifest consignee data there are approximately another 70k TEUs coming from NY/NJ and the West Coast to Boston. Therefore 100% capture of this activity could easily be accommodated by Conley. One of the limiting factors to utilizing its capacity is the limitations of freight rail between Conley and Worcester (the principal transshipment facility).

Observations and Considerations

There remains substantial uncertainty regarding demand for “over the dock” marine industrial opportunities in the RLFMP. There is no clear market opportunity for over the dock activity with the exception of additional cruise ship activity. However; this operation lies outside the limits of the marine industrial park. With additional investment in waterside infrastructure there is the potential for a general purpose marine terminal and expanded ship repair operations; however, both are contingent on an entity taking on the upfront costs of infrastructure repair. Expansion of other port facilities like Conley and the Mystic River, as well as competing ports in the region, is likely to meet



Expansion of the Conley Terminal provides capacity for demand for ship to shore transfers.

the landside needs of any shipping activity. Moreover, the limitations on certain types of cargo (e.g. scrap metal & oil/chemical)—excluding salt and aggregate of which the RLFMP is not limited—shrinks the pool of opportunities for "over-the-dock" marine industrial uses. Limitations on cargo logistics caused by infrastructure complications in rail and truck access may impede the competitiveness of the RLFMP. It is not clear that improving the readiness of the marine infrastructure at considerable cost (\$80m+) within the RLFMP changes these dynamics.

Pursuing DPA categorical Marine Industrial appropriate facilities, such as seafood processing, is an ongoing opportunity. Marine industrial facilities such as manufacturing and processing can be used for other types of industrial and industrial service activity if demand for marine industrial uses such as seafood processing does

not materialize. The tight supply of contemporary facilities coupled with several potential drivers of continued demand suggest an opportunity for "industrial" type development that would be consistent with the intent of the DPA across the urban core area of Boston.

Ultimately, contemporary marine industrial uses, such as fish processing (from a building perspective) are really no different than many warehousing and distribution buildings. Allowing general industrial uses doesn't prevent the land from being marine industrial in the future. Considering the vast majority of "marine industrial" uses in the RLFMP, outside of the ship repair, function no different than say, food distribution, it's more a matter of who you can attract, as the buildings themselves are flexible.



Logistical constraints outside of the RLFMP and the reduced hours of operation for Track 61 make reactivating the rail line for rail freight cargo difficult.

RLFMP Infrastructure Evaluation

To maintain a robust industrial district significant investment must be made in the existing infrastructure of the RLFMP including roadway and waterside improvements.

Operational constraints and complications beyond the RLFMP—whether adjacent or distant, such as congestion along Northern Avenue or the difficulty of rail freight stacking in Worcester—are inevitable when dealing with businesses built around logistics. That being the case, infrastructure improvements in the RLFMP must be looked at holistically, and need to consider if the internal investment made lines up with market demand and operational constraints at a local and regional level.

The infrastructure assessment undertaken for the Master Plan Update, examined the existing condition and future recommendations for roadway, intermodal and waterside infrastructure, often discussing the interrelated and interdependent nature of these types of infrastructure. A review of prior reports, site tours and interviews led to the conclusions of the assessment. Ultimately, this infrastructure assessment serves as an essential component to determining the future development potential of the RLFMP, considering that the direction of development will in part be based on the appropriateness of the infrastruc-

ture and the cost of needed improvements in the existing infrastructure. For instance, estimates for the jetty rehabilitation projects for the South and East Jetties range from \$18-\$32M. Costs of this magnitude will rely on upfront public investment, making the challenge even greater.

A comprehensive Capital Needs Assessment for BPDA property was completed in 2017 and identified the investments needed to be made in the RLFMP. The scope of infrastructure projects that could be undertaken to provide support to water-dependent industries in the RLFMP total in excess of \$80 million for design and construction services. This total is expected to grow with the incorporation of necessary resiliency investments, through coordination with BPDA's maritime tenants who will highlight their individual needs, and with new roadway improvement projects outlined in the transportation section of this Master Plan Update.

The historic dependence on waterside infrastructure in the RLFMP has lessened over time, with few businesses actually relying on maritime infrastructure for their operations. Rail access, which existed historically, has been abandoned due to the cheaper cost of truck freight and the limitation of freight rail in the RLFMP because of peripheral logistics both in Boston and beyond. Nonetheless, demand for both waterside infrastructure and freight rail should not be dismissed. Our plan aims to preserve the potential of these types of infrastructure in the future, as demand may shift.

Marine Infrastructure Status and Investment

2017 Capital Needs Assessment

The RLFMP is located within Boston Harbor at the confluence of the Main Ship Channel and the Reserved Channel. It is one of the most seaward industrial properties in the Port of Boston, along with Massport's Conley Terminal. The RLFMP has two primary ship berths, including Berth 10 (Parcel C-1) and the North Jetty (Parcel M-1). Currently, the South and East Jetties (both in Parcel L) are in poor structural condition and not in use.

The waterfront assets within the RLFMP are located primarily within the following parcels:

- Parcel C-1 (Berth 10)
- Parcel K (Coastal Cement)
- Parcel L (Dry Dock #3, w/South and East Jetties)
- Parcel M

- Parcel M-1 (Massport Marine Terminal, w/North Jetty)
- Parcel V (Dry Dock #4)
- Parcel W (Wharf #8)
- Parcel Z (Pier 10)

However, for the sake of this study and its focus, only a few of these parcels can serve to provide additional marine industrial activity, if the demand does exist for waterborne "over-the-dock" uses. Parcels L, M-1 and V are the primary focus for improvements to waterside infrastructure. Parcel L is currently in operation, but improvements are possible to increase the potential uses and types of vessels that can be brought in and repaired. Additional detail on the entire portfolio of waterside infrastructure in the RLFMP can be found in the Technical Memo section of the report.



Parcel M viewed from the North Jetty



Existing condition diagram of RLFMP infrastructure (water and landside)

Relevant Parcels and Waterfront Infrastructure

Of the four parcels of interest (L, M-1, M, and V), Parcel L is the only one with an active over-the-dock maritime industrial use, which is the Ship Repair. While the dry dock is in use, there are two separate jetties (the South and East Jetty) that are in need of significant repair.

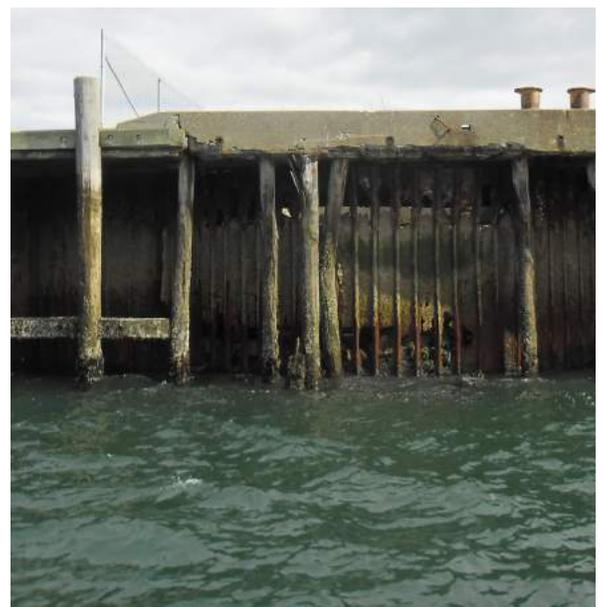
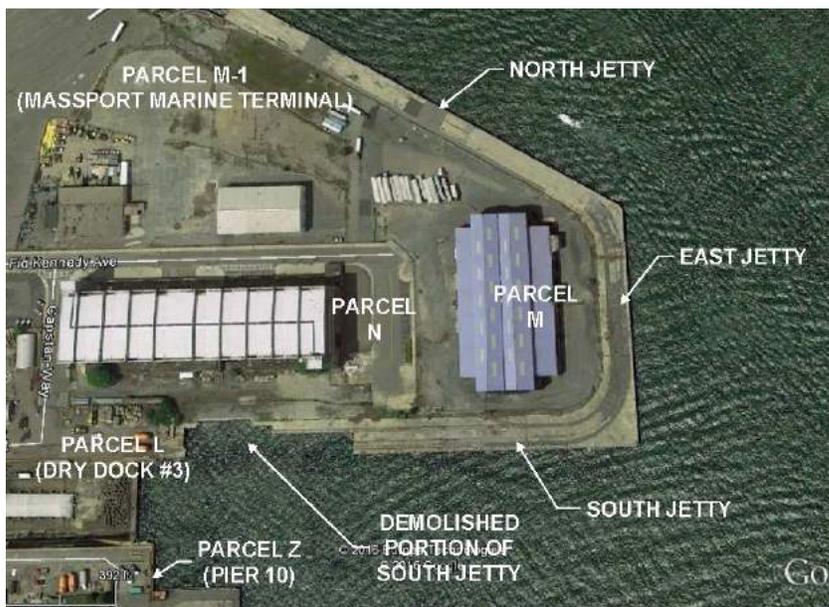
The jetties were originally constructed during the 1940’s and used for shipping and off loading for decades. Significant repairs to the jetties were performed in 1996 at a cost of approximately \$14.5 million. The work included demolition of approximately 320 linear feet of the South Jetty closest to the dry dock, removal and replacement of the deck structure and heavily deteriorated pile encasements

Today, the jetties are in poor condition overall and are in need of major structural repairs and/or reconstruction. The severe deterioration of the concrete pile jackets and exposed corroded steel reinforcement in the deck and jackets has significantly reduced the structural capacity of the South and East Jetties, which are currently not utilized due to the state of disrepair. In 2021, the BPDA’s Capital Construction team led a project to rehabilitate the East Jetty bulkhead. The scope of work included addressing corrosion and backfill in order to retain and protect the adjacent land and structures. Assessing the market demand for over-the-dock usage will determine



whether or not future investments in the jetties at this juncture makes economic sense.

The Massport Marine Terminal (MMT) presents the most significant opportunity for potentially taking advantage of waterside infrastructure for future development potential. However, the waterside infrastructure is currently in a serious state of disrepair. By most measures, this parcel has excellent landside access, with direct truck access to the Haul Road and subsequently, I-90. The challenge is that there is little to no landside infrastructure on-site and the waterside infrastructure is in a state of disrepair.



Damage to the South and East Jetties has reduced their structural capacity.

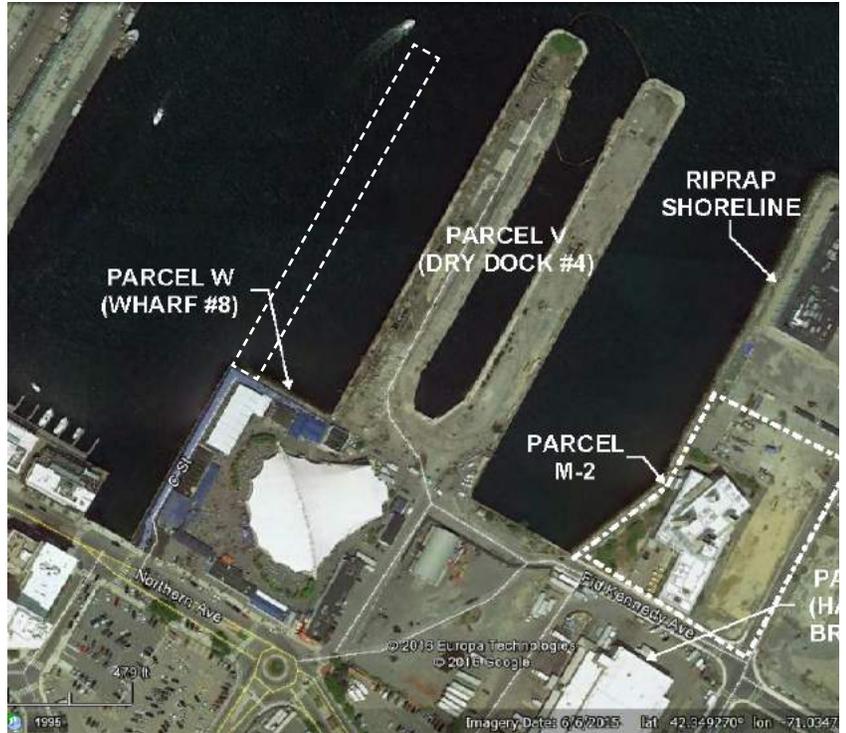
The North Jetty is the most important and valuable asset at MMT, with its deep-water access and hardened-edge berth infrastructure that could accommodate various bulk or break bulk cargo vessels. In 2006 an above and below water structural condition assessment was performed at the North Jetty and revetment west of the wharf, which determined that the Jetty requires extensive rehabilitation to extend its service life for another 15-20 years. Additional deterioration has occurred since then.

Lastly, Parcel V, which consists primarily of Dry Dock #4, is an additional waterside asset that is currently in a state of disrepair. Built in the early 1940's, the dry dock was made for small to medium sized vessel repair with a depth of 35'. The facility is in a serious state of disrepair today, and was recently undergoing repairs to stabilize the existing steel sheet piling bulkhead structures and caisson.

Waterside Infrastructure Repairs

The primary focus for the waterfront infrastructure in the RLFMP should be to rehabilitate, preserve and maintain the North, South, and East Jetty structures. These are the primary deep-draft vessel berths within the RLFMP, and are the most critical to enable over-the-dock marine industrial uses. Repairing these structures will be the key to developing Parcels M and M-1 as marine terminal facilities. Potential uses at these parcels include container and chassis storage associated with operations at Conley Terminal, frozen and chilled perishable cargo processing, storage for agricultural products, and trans-loading for perishable cargo. In the future if the rail line is extended, trans-loading of heavy weight rail cars carrying wood and paper products might be possible, as well.

Dry Dock #4 also provides relatively deep water access for small to medium sized vessels, but the structures at the facility are in very poor condition, and require significant investments for reconstruction and conversion to support new development for marine industrial or commercial use. Dry Dock #4 could potentially be filled in as an alternative scenario and become a development site. The Fish Pier in the South Boston Waterfront District could possibly make Dry Dock #4 a future home for a seafood cluster, as it is already designated for marine industrial uses and it is a larger parcel.



Dry Dock #4 requires investment for significant repairs to be completed if it is to be used for water dependent "over the dock" uses.

Marine Infrastructure Projects Since 2017 Submittal

East Jetty Bulkhead Rehabilitation

As mentioned, the project was undertaken to address corrosion and backfill in order to retain and protect the adjacent land and structures. The project included the repair and stabilization of approximately 465 linear feet of steel sheet pile bulkhead.

FID Kennedy Parcel V-1 Bulkhead

This project included the removal of an abandoned conduit, removal of pile cap; and installation of 235 linear feet of new sheet pile. Additionally the project facilitated the realignment and improvement of FID Kennedy Avenue by resurfacing, new concrete sidewalks, street lighting, a repaved section of Harborwalk and Harborwalk signage. Modifications were made to the eastern and northern face of Pier 5 of Drydock #4. New fender piles were driven along the seaward face of the new wall.

Drydock 3 Electrical Upgrades

The scope of improvements to Drydock 3 include upgrades to the drydock's electrical service to 8000A to allow the shipyard to have sufficient shore power for the modern vessels, eliminating the use of diesel generators to provide this power to the ship. The upgrade requires the installation of 880 feet of duct-bank to bring the electric service into the shipyard; construction of a concrete pad for two 4000-kVA transformers; and connection of the transformers to the ship-shore-power plugs by underground wires and two 4160v-480 step-down transformers. The BPDA has worked with Boston Ship Repair to secure federal and state grant funding for this project.

Rail and Roadway Infrastructure Status and Investment

Summary of Conditions

The RLFMP's transportation logistics are almost exclusively handled by trucks. The vast majority of businesses are moving goods in and out of the industrial park via truck freight where dedicated access to the Haul Road is a crucial component to their operations. Scheduling and on-time delivery of goods is paramount for many of the industrial businesses in the park, therefore the ability to connect to the interstate seamlessly is the primary concern of these businesses.

Interestingly, the majority of traffic complications for trucks are not in the district itself, but rather just outside the district, meaning that transportation issues must be handled at the local level, not just at the district scale. The same would be true for rail freight were it to return to the RLFMP. Logistical issues arise in both Boston and regionally, as capacity demands for shipments has evolved over the years.

Part of this planning assignment is to make recommendations on how to mediate these conflicts and even provide alternate routes, if possible to separate traffic.

The majority of the road network within the RLFMP has been upgraded to improve surfaces, sidewalks, curbing and landscaping. Future planning should pay particular attention to pedestrian safety in the RLFMP when addressing improvements. Recently, the BPDA extended FID Kennedy Avenue west, and an additional connection that runs parallel to Tide Street between FID Kennedy and Northern Avenue, which will provide additional truck access for future development. The BPDA is also considering creating a new road connection that parallels Track 61 between Dry Dock Avenue and the Massport Haul Road. This would provide a new connection with direct access from the RLFMP via Drydock Avenue to the Massport Haul Road/South Boston Bypass Road, the Ted Williams Tunnel and the Massachusetts Turnpike (I-90 westbound).



Track 61 right-of-way in front at 5 Drydock Ave (North Coast Seafood)

Track 61

Track 61 is the only remaining rail link within the RLFMP. Although the line was once heavily utilized on the South Boston waterfront prior to the establishment of the RLFMP, service on the line ended during the construction of the Central Artery project and is currently out of service. The right-of-way has been preserved, however, in order to enable re-establishment of the rail infrastructure in the future.

The existing components of Track 61 run along the Massport Haul Road, extending down Drydock Ave along-

side the Design Center Buildings. The estimated construction cost for the new Track 61 improvements was approximately \$7.43 million in 2008.

Rail service is not essential for existing tenants, based on interviews performed as a part of the Team’s study. The tenants currently leasing the northern parcels within the RLFMP expressed interest in future rail (e.g., Massport Marine Terminal; Harpoon Brewery; fish processors) for moving goods such as cold/multi-temp cargo; bulk, break-bulk and distillery grains; and cross dock or overweight cargo. However, the lack of rail service was not currently hindering their operations.

Despite the lack of demand for rail freight, challenging logistics and the upfront costs involved in its repair, it is recommended to at least preserve the rail right-of-way in the event that there is a future use for it someday, whether for passenger transit or freight.

Existing Street Condition

The majority of surface streets in the RLFMP are in acceptable condition. The primary challenge for the streets in the RLFMP is that first and foremost, they must accommodate frequent and widespread truck traffic. This means generally larger lane widths, larger turning radii and intersections that might seem out of scale compared to a traditional street. The complication that arises, is how this scale relates to the increasing amount of pedestrians and cyclists found in the district. Further examining areas for protected pedestrian and bicycle infrastructure is recommended for further study. Subsequent sections of this report will look at Northern Avenue as a case study for just this sort of improvement.

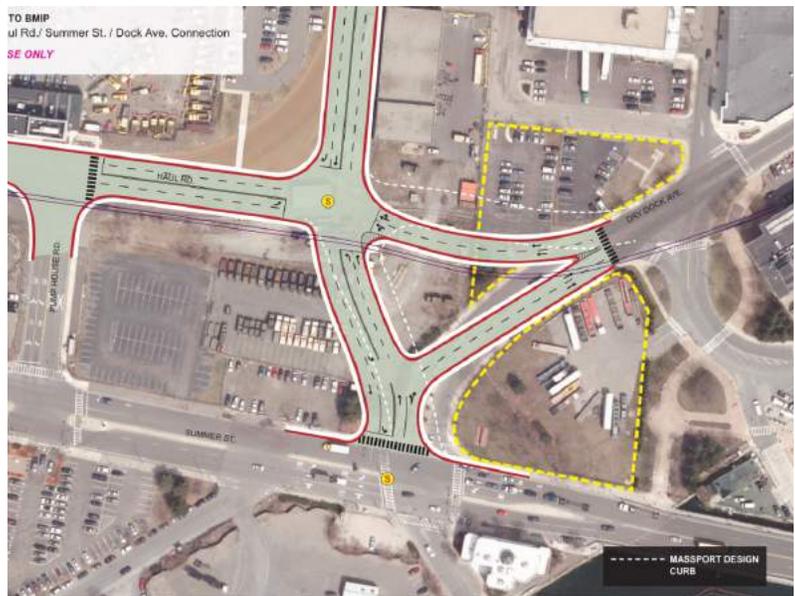
New Connections

A new connection from Summer St directly to the Haul Road has been proposed by the BPDA. The advantage of this connection is providing direct truck access off of Summer Street to the Haul Road and thus to the interstate or Logan. And as a secondary benefit, it creates another needed network connection from Summer Street to Northern Avenue. An additional connection as mentioned above comes directly from the Haul Road to Drydock Avenue.

In the future, as parcel M1 is developed, new street connections should be considered to both break down the scale of the parcel and provide additional means of movement for trucks and pedestrians. This

will also divide the property into individual development parcels, rather than a single development. Connections into and through the MMT (M1 Parcel) could also support a defined district of businesses, such as seafood processing and distribution.

Lastly, a better connection from FID Kennedy to the Haul Road could alleviate truck traffic in the rest of the district and reduce conflicts between trucks and cars. This will be illustrated in subsequent sections of the report.



A proposed intersection would extend the Haul Road directly to Drydock Ave and provide additional access to the Haul road from Summer Street

Roadway Infrastructure Projects Since 2017 Submittal

Northern Avenue Mobility Improvement and Streetscape Design

Design has been completed and construction is expected to begin in spring 2022 for a project on Northern Avenue to provide sustainable modes of transportation while avoiding conflict with existing truck traffic within the RLFMP. The project will increase safety through design for all users within the Marine Park and improve existing streetscape and bring up to Boston Public Works standards in anticipation of ownership transfer.

Mobility Improvements

- Add bicycle tracks along Northern Avenue and Tide Street.

- Improve bus stop conditions and locations along Northern Avenue.
- Redesign cross walks to increase pedestrian safety.

Streetscape Improvements

- Install City of Boston standard Street Lighting.
- Improve streetscape while maintaining access for trucks.

Infrastructure Funding Sources

Understanding the current constraints of infrastructure improvements, the BPDA will prioritize maritime-supporting investment projects based on a set of clear relational criteria. The prioritization will take into account evaluation metrics such as public safety, asset utilization, and financial impact to better determine which projects will further the goals identified in this Master Plan Update.

Maritime Capital Reserve Fund

Utilizing the revenue generated through its real estate portfolio, specifically from general industrial redevelopment in the RLFMP, the BPDA is committed to leveraging independently-generated funds to accelerate investment in maritime infrastructure. Infrastructure investments of this kind will support the maritime industrial economy and further the employment opportunities that these industries generate for the City of Boston.

In 2021, the BPDA established the Maritime Capital Reserve Fund to clearly lay out a pathway for these maritime investments moving forward and are concretely illustrating how the expansion of non-water-dependent development will help strengthen the maritime economy.

Funds for the Maritime Capital Reserve Fund will be set aside from the BPDA General Fund to exclusively invest in maritime infrastructure improvement projects. BPDA has put forth an initial seed contribution of \$18 million, and annual contribution will be assessed on a yearly basis and will be determined based on BPDA financial performance.

RLFMP Climate Resiliency Infrastructure Funding Mechanism

As identified in Climate Ready South Boston, large scale district-wide solutions are needed to protect the neighborhood's community, jobs, and infrastructure. These high priority investments will prevent billions of dollars in physical damages and displacement

costs. Through a public-private cost sharing mechanism, the BPDA has introduced a way to fund such investments which will ultimately benefit all tenants of the RLFMP.

Each participating RLFMP tenant's share of the BPDA and/or City of Boston resiliency investments will be determined by their percentage of the RLFMP's total built square footage. Tenant's pro rata share will include their parcel's building area divided by the total building area of the RLFMP. This formula is utilized instead of a flat contribution because the building area is expected to be updated from time to time as new projects are delivered.

The BPDA will fund the resiliency investments upfront and seek reimbursement from tenants after the projects are underway. Annual payment for each property is capped at a maximum yearly contribution value, escalating annually. The cap for maritime tenants is lower than the cap for non-maritime tenants in order to reduce the financial burden on the water-dependent uses.

In the Fiscal Year 2022 budget, the BPDA set aside \$1.0 million to complete a vulnerability analysis for the RLFMP. This analysis will guide the agency in advancing the plans for district scale flood protection infrastructure based on the Coastal Resilience Solutions for South Boston report. The established public-private funding solution will enable expedited investment in projects that will sustain the RLFMP for maritime and other industrial tenants.

Supplemental Funding Sources

The RLFMP has benefited and been a candidate for numerous local, state and federal funds including TIGER, Massworks, Seaport Economic Council and City of Boston Capital Funds. Other potential sources include FEMA, FTA, FHWA, MARAD, ARPA, and USDOT.

Examples of supplemental funding:

Federal - \$576,000 Marad Small Shipyard Grant for Drydock #3 Electrical Upgrades
State - \$384,000 Seaport Economic Council Grant for Drydock #3 Electrical Upgrades
Local - \$1.4 million City of Boston Capital funds for Northern Avenue Redesign Project
Tenant - Eastern Salt \$25-35 million investment in the North Jetty

What We Heard: The Business Climate of the RLFMP

The historic industrial businesses in the RLFMP are going through a period of adaptation, while hoping for a stance on preservation.

In order to comprehensively understand the business and logistical dynamics in the RLFMP individual business owners and property managers were interviewed to gain firsthand knowledge of on the ground operations, as well as their successes and concerns.

Our team conducted 3 days of interviews with tenants and toured 10 separate facilities. Ongoing interviews occurred as the project moved forward. In addition to the one-on-one interview process a comprehensive survey was sent out to all of the businesses in the RLFMP. The survey posed questions related to the:

- Type of business
- Reasons for locating in the RLFMP
- Number of employees
- Where employees commuted from
- Means of transportation
- Use of transit
- Transportation and parking issues, and
- Thoughts on the changing business composition in the RLFMP among other questions.

The following types of businesses were interviewed in 2015, which represent a true cross section of the type of businesses located in the RLFMP. Per more recent discussions with the

Marine Park Business Association, the findings from the original interviews were restated and confirmed.

- Seafood Processing
- Furniture Wholesalers
- Biotechnology and Research
- Startup Accelerator
- Brewery
- Signage Engineering and Fabrication
- Concert and Event Venue
- Bakery Manufacturing
- Freight
- Real Estate Investment and Management



Transportation & Logistics

Truck access to the Haul Road and interstate is crucial to operations. For the businesses in the RLFMP that rely on trucking operations to move products in and out to local and regional destinations by road, and airborne shipments via the airport, reliance on the Haul Road is essential. Trucks are going to regional businesses and wholesalers, and to Logan Airport. Many businesses rely on “just-in-time” logistics, e.g. seafood processing. Products are brought in and shipped out in the same day.

This unhindered access for dedicated trucks ensures that freight moves in and out of the park smoothly. Additional traffic in the RLFMP could compromise this; however, the biggest challenge is addressing traffic immediately outside the RLFMP. Traffic delays or closures are a significant problem in terms of potential lost sales or the need to increase trucks and drivers to meet delivery schedules.



Business cluster effect

The RLFMP was established as an industrial preservation zone in 1971 and over time many of the businesses came to benefit from being clustered around complementary businesses. This relationship—and often times redundancy—came to establish active business clusters. For example, the Design Center thrived from having wholesale furniture and design companies adjacent to one another. Both the companies and buyers at the Design Center benefit from the proximity to other showrooms and wholesalers.

Speaking with Contract Sources Ltd, the Design Center’s initial and on-going success is the result of lower rents possible in an industrial district. This is, in large part, the reason they initially located in the RLFMP. If only a couple companies relocate because of rising rents, it may cause a wholesale relocation since the companies benefit from mutual proximity.

The RLFMP is also an important regional seafood cluster with dozens of seafood based

companies across the park. Access to the interstate and Logan Airport are primary reasons for their location, but it also provides efficient one stop shopping for seafood wholesalers and distributors. Trucks coming from Canada with fish are able to distribute to a number of seafood processing companies in the RLFMP. For wholesale buyers, it also offers the advantage of being a single destination for a range of fish products.

Lastly, a new business cluster has emerged in the RLFMP, particularly in 27 Drydock and the Innovation & Design Building. Research and Development (R&D), light-manufacturing and technology companies are benefitting from lower rents and proximity to the South Boston Waterfront District. The clustering effect here creates a concentration of shared knowledge and emphasis on spin-off businesses. Mass Challenge, a non-profit incubator space has become a significant resource for Boston’s knowledge based economy. This new economy in the RLFMP brings with it a different workforce and spatial needs.



In our tenant interviews the owners of the businesses expressed concerns that ranged from lack of parking, to emphasizing the need for truck access. They also wanted to ensure the commitment to Boston businesses on behalf of the EDIC.



Yankee Lobster (center and right bottom), Leader Bank Pavilion (top) and Harpoon Brewery (left bottom) are among a few of the businesses we visited and spoke with.



Harpoon Brewery - photo by Henry Zbyszynski at <https://www.flickr.com/photos/hankzby/14365787991/>



Industrial Use Classification

Industrial uses in recent years no longer mean incompatible, space intensive and freight dependent operations. The advanced and light manufacturing, as well as R&D sector are generally classified as an industrial use, as well. The classification has worked to the benefit of these businesses as it generally means more affordable space and to run short term trials. In the RLFMP these businesses are the fastest growing sector. The challenge for the RLFMP is two-fold, 1) the square footage per employee is less than is needed for a traditional industrial use, therefore, there is a greater demand for transit and parking, which is already at a premium in the RLFMP, and 2) a concentration of these businesses and a highly skilled workforce means that there will be a continued in-migration of these businesses causing rents to rise and forcing more traditional space intensive businesses out. The conflict for the RLFMP is that these post-industrial tenants mean additional revenue at the expense of blue collar jobs and traditional industrial uses, many of which need to be adjacent to an urban core.



Parking and Transit

The limited parking supply at the RLFMP and the imposition of the South Boston parking freeze instituted by the DEP mean that parking is at a premium and a primary concern for many of the businesses in the RLFMP, both old and new. For newer businesses, it is difficult to offer guaranteed parking, which can affect the marketing of space to industrial tenants. For older tenants, such as those in the Design Center, it means that there is less parking for their customer base. The City is contemplating expanding the 12 Drydock Avenue parking garage onto Parcels G and G-1.

Since parking is limited, a large percentage of employees rely on the Silver Line. Improved service is crucial to ongoing operations and for attracting new businesses and talent. Businesses expressed a need for additional routes or a collective transit system unique to the park itself. The Seaport Strategic Transit effort is underway and nearing completion to assess transit access to the RLFMP.

Resolving the Dynamics of RLFMP : Planning and Development

How can future planning scenarios affect the economic and development potential of RLFMP?

The fundamental challenge of the RLFMP is how to preserve marine industrial uses and jobs in the era of rising land values in South Boston and the steady decline of true water dependent industrial uses. Planning and development solutions for the marine industrial park must find a compromise between ensuring that the park remains a base for blue collar jobs and industrial uses needed to serve an urban core, and taking advantage of the growing development pressure surrounding the RLFMP. A solution that can harness this development interest to help subsidize the parallel ongoing operations and growth of an industrial sector should be further explored.

The planning scenarios that follow suggest that a reexamination of the use limitations in the RLFMP, along with developing parcels to their full capacity—both spatially and regulatory—to set a path toward reinvestment in the RLFMP. A mixed-industrial RLFMP that allows for additional supporting industrial uses, while preserving waterside parcels for water dependent industrial uses creates a

mutually beneficial solution to the challenge of the RLFMP. This strategy will be further outlined in the following pages.

Existing Character in the RLFMP

Part of the energy of the RLFMP is its varied character. There are few places where a large ship repair facility (Dry Dock #3) is across the street from pop-up container shops serving street food. This contrast in use is found throughout the RLFMP; however, it is often more of a challenge than not, largely due to the logistical requirements of large industrial users versus those of a smaller non-truck dependent business. A natural "districting" in the RLFMP already exists, in the sense that many light industrial, fabrication, R&D and commercial tenants are located in the Innovation & Design Building, 27 Drydock Ave and 12 Channel Street. This is largely because these are multi-tenanted spaces that offer a range of leasable areas for businesses. Older, multi-story industrial buildings allow this adaptation to happen, whereas newer industrial buildings suited to a single tenant or

use have little flexibility. For example, the Innovation and Design Building has approximately one hundred tenants ranging from 575 sf to 40,000 sf.

Larger industrial users, such as the seafood cluster off Northern Avenue have larger, more space intensive businesses that include necessary truck loading and parking aprons. This speaks to both the type of operations (generally larger industrial users) and the amount of people occupying the buildings (generally a lower person per sf for uses such as distribution and manufacturing). The land intensive nature and low pedestrian activity are distinctly different than those businesses along Drydock Avenue.



Many of the buildings in the RLFMP provide a mix of industrial and commercial uses to support the tenants and employees in the district. Harpoon Brewery (above) has a taproom in the same complex as its brewing operations. The taproom is one of the few destination points for the general public in the RLFMP.

Districts in the RLFMP

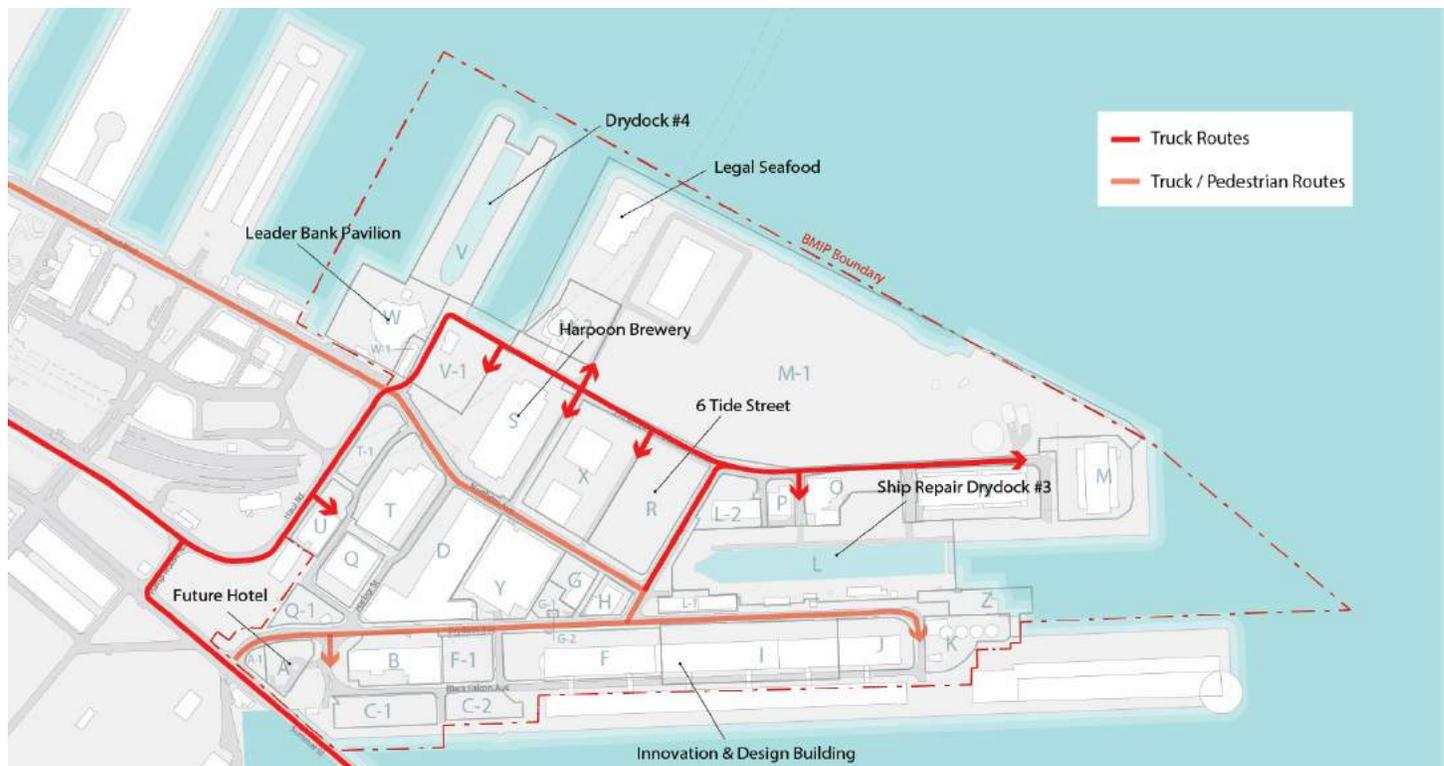
A general districting approach between these types of businesses makes sense for a number of reasons.

1. Transportation and Trucking Logistics:



The heavier industrial users along the water-side parcels and those off of Northern Ave rely, almost exclusively, on large trucks to serve their businesses. This requires space intensive loading areas, and broad circulation and parking aprons. These areas have the land available to handle such maneuvering. Businesses in the buildings along Drydock Ave within the RLFMP (this does not include 88 Black Falcon and the Cruise Terminal) are less reliant on large semi-trailers and container trucks (these are a minimum of 40ft long), but are generally served by smaller city or box trucks that have greater maneuverability in tighter spaces and are less of a conflict interacting with daily vehicular traffic.

Most important to trucking logistics for the RLFMP is access to the Haul Road and the interstate systems. This is for shipments that are going locally, regionally and to Logan Airport. Many of the products moving in and out of the RLFMP require "just-in-time" capabilities. This means that products come in and go out on the same day. The seafood cluster and Harpoon Brewery are examples of this sort of operation. While traffic backups are largely the result of traffic outside the RLFMP, there should nonetheless be an effort to separate truck and vehicular traffic where possible. A dedicated truck road along FID Kennedy with direct access to the Haul Road would capture this need and serve any large industrial users that back up to FID Kennedy whether those at the Massport Marine Terminal or that have access from both FID Kennedy and Northern Avenue.



The diagram above demonstrates the main routes of travel for trucks.

2. Pedestrian Safety:



With the increasing number of workers in the RLFMP using transit, a focus on pedestrian safety is important. The majority of pedestrians in the district are walking from MBTA Silver Line stops at Silver Line Way, Tide Street or the many stops along Drydock Ave and Black Falcon Ave. There are also some employees walking from the Seaport District. The level of pedestrian activity in the morning, between transit users and employees coming from the public parking facility on Parcel Y, can cause conflicts with truck operations, particularly those along Drydock Avenue. The intersection of Tide Street and Drydock Avenue is of the greatest concern. Separating the heavy truck traffic from the majority of vehicular and pedestrian traffic via concentrated truck access along FID Kennedy to the Haul Road is one way to reduce the threat of pedestrian casualties. While trucks would still be able to move throughout the park, a more defined circulation system would help to reduce conflicts.

3. District Character:



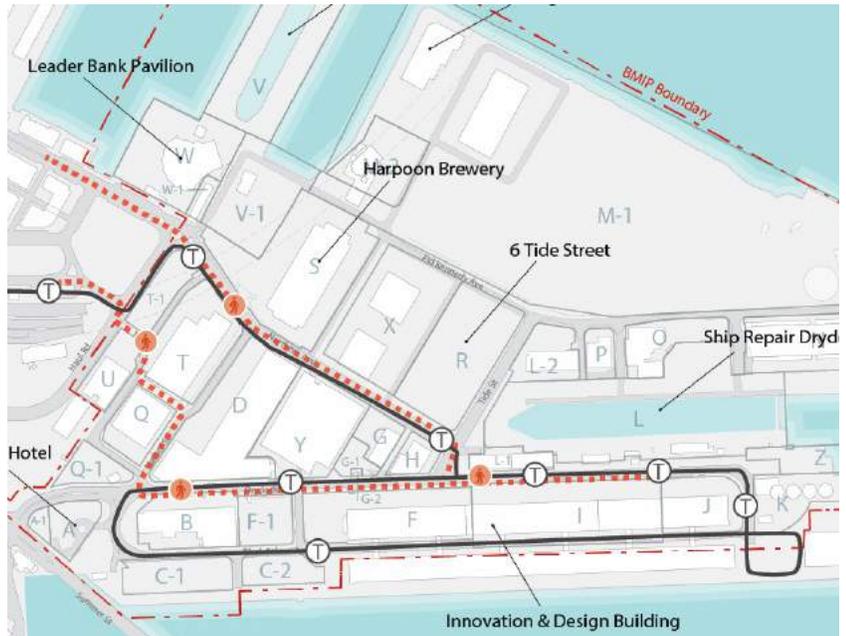
Improving the pedestrian and cycling experience along Northern Avenue and Drydock Avenue is important for visitors and employees alike. As mentioned, these are the two primary pedestrian streets in the RLFMP, both of which might be better served by improved streetscapes. As imagined, the larger industrial tenants are generally truck focused with little accommodation for pedestrians. This strict divide tends to be complicated when mixed, as is the case at times along Northern Avenue. Perhaps more so than Drydock Avenue where the main large trucking operation is North Coast Seafood. Projects at the intersection of Drydock Avenue and Summer Street (Parcels Q and A), which are an office building and hotel development, respectively, have a more active ground floor, only furthering the logic of creating unique districts.

4. Public Realm and Pedestrian Access:



The RLFMP benefits from open space and is served by an improving pedestrian network. RLFMP tenants, employees, customers and cruise passengers alike have access to green spaces and plazas.

As the RLFMP continues to develop there is a need for more open space and improved pedestrian networks to



accommodate new businesses and employees. There may be opportunities to expand open space and perhaps integrate RLFMP public access areas into the broader open space system of the South Boston Waterfront, particularly through the Harborwalk network.

Open spaces that currently activate and support the RLFMP include the green space known as Pier 10 Park, the plaza in front of and the promenade along the Innovation and Design Building and the green space at the Summer Street entrance of the RLFMP. There is also a greenspace and elevated viewing platform at the base of Dry Dock Number 3 to allow the public to observe the activities in the Dry Dock.

There are multiple sections of Harborwalk and viewing areas at the water's edge. There is a publicly accessible Harborwalk section along the west side of the Leader Bank Pavilion (Parcel W), Harborwalk along FID Kennedy in between Dry Dock Number 4 and Vent Building Number 6, and also along the side of the vent building. At 88 Black Falcon Avenue there is shoreline public access, fishing station and seating.

A commercial office project at Parcel Q and a hotel at Parcel A provide additional open space and plazas to strengthen the Summer Street entrance/gateway to the RLFMP. As we look to increase and enhance open space and public access, referring to the various planning layers for the South Boston Waterfront and RLFMP provides us some context and guidance.

The 1999 Seaport Public Realm Plan suggests linking the Rose Kennedy Greenway with a series of parks, piers, overlooks and civic and cultural facilities along Seaport Boulevard and Northern Avenue extending to Wharf 8 and the North Jetty (Marine Terminal). Much of the proposed network of public facilities will strengthen and extend the Harborwalk system along South Boston's waterfront to the RLFMP. In the RLFMP the intent was to provide areas where the public can view the active maritime uses, blending public access and waterfront activity. Open space opportunities are noted along Wharf 8 and Parcel W the location of the Leader Bank Pavilion. The Plan notes this area could also support water transportation facilities including servicing and layover berthing facilities.

The 1999 BMIP Master Plan recognized preexisting open space and pedestrian networks and proposed a pedestrian access plan designed to encourage public access and circulation within the Marine Park and to provide the public access to the waterfront and advantageous viewing areas of port activity without interference with such activities. Much of the public realm was built out and evolved over time to accommodate employee access to and within the RLFMP. The BMIP Master Plan identifies the Dry Dock No. 4 and the Parcel W/Wharf 8 area as an important location for public access and viewing areas.

As we consider opportunities for more open space in the RLFMP, there are numerous factors and planning objectives to consider. Open space should be at the water's edge and proximate to transit and other pedestrian networks. Are there areas of the RLFMP that are at greater risk for flooding due to climate change and sea-level rise? Are there properties no longer suitable for maritime industrial uses due to structure conditions or physical limitations for new uses?

By reviewing the various planning layers and the parcel and planning analysis of the RLFMP Master Plan we begin to see opportunities for expanded open space and public facilities in the Dry Dock No. 4 and Parcels W and VI area. This area of the RLFMP makes up the Northern Avenue gateway already animated and activated by the Leader Bank Pavilion, Yankee Lobster retail and restaurant uses and Harpoon Brewery's beer hall. This gateway will be strengthened by the mix use project at Massport Parcel K that adds residential and hotel uses along Northern Avenue.

The current open space network extends from the Rose Kennedy Greenway, plazas and green spaces at Seaport Square and Pier 4, Harborwalk extending to the Eastport and South Boston Maritime Parks along D Street and arriving at the Dry Dock No. 4 Northern Avenue Gateway.

While Dry Dock No. 4 may not be suitable for traditional maritime industrial uses it could serve the RLFMP and Commonwealth Flats area as a mix of open space and water depend activity comparable to Long Wharf in Downtown Boston that is a mix of open space, Harborwalk, water transportation facilities and civic and commercial uses that create a year round public destination.

With continued development in both the RLFMP and the South Boston Waterfront, as a whole, a connected and safe pedestrian network is vital. In addition to promoting pedestrian safety, this update to the RLFMP Master Plan provides an opportunity to also promote pedestrian access to the waterfront within the Park.

As stated in this plan, there are actions that can be made to promote greater pedestrian safety while also improving truck access and circulation to and within the RLFMP. Separating truck traffic with dedicated truck access on FID Kennedy to the Haul Road and by modifying the RLFMP Summer Street entrance with a direct Summer Street to Haul road link provides better truck circulation for maritime and industrial businesses while strengthening pedestrian and bike access through the gateways at Northern Avenue and Summer Street.

The RLFMP is also included in the South Boston Waterfront Wayfinding pilot program, a result of the South Boston Waterfront Sustainable Transportation Plan, which provided short, medium, and long-term recommendations for improvements to the South Boston Waterfront transportation and infrastructure logistics. The pilot program will help guide employees of and visitors to and from points of interest both inside and outside of the RLFMP. Potential points of interest for industrial port tourists included in this initiative are the adjacent Flynn Cruiseport Boston and Boston Fish Pier.



Imagine Boston 2030 stresses the need for signature open spaces along Boston Harbor and the strengthening of open space networks both along and to other neighborhood open space networks.





5. Real Estate Development:

Recent real estate development interest in the RLFMP has varied from hotels to large scale distribution facilities. In general, this development has fallen in line with the previous master plan's intention of allowing for commercial development at the gateway parcels along Summer Street (Parcels Q and A), but there has also been approved development for processing and distribution facilities on Massport's Marine Terminal and a new 360,000 sf R&D complex on Parcel R. Parcel N was redeveloped for a new industrial user, as well. Massport is also reviewing proposals for the Marine Terminal. Additionally, those parcels in the RLFMP which sit outside of the DPA and outside of Chapter 91 jurisdiction have garnered interest historically. These are the parcels closest to the intersection of the Haul Road and Northern Avenue (Parcels U, T1, T, Q1 and Q). From a real estate development perspective, these parcels are not bound by the use restrictions that go along with being part of a designated port area, nor are they subject to any constraints imposed by Chapter 91. The greatest limiting factor is local zoning and air rights development (Parcel T1 only). Lastly, the rapidly changing nature of businesses lo-

cated in the Innovation and Design Building, as well as 27 Drydock Ave, has resulted in a higher concentration of technology, design and fabrication, and research businesses. The ground floor of the building is now home to container trucks of food vendors and retail to serve the local daytime population and the design center. This is a very different condition than the trucks of fresh seafood rolling in and out of Seafood Way.



6. Waterside Industrial Uses:

Per the 1999 Master Plan for the RLFMP, and the subsequent Chapter 91 master license update, all waterside parcels in the RLFMP have been maintained as Marine Economy Reserve, meaning that they must all be a water dependent maritime use. The historic association of an industrial waterfront is preserved in this regulation and is in concert with many of the waterside uses in the RLFMP today, including the ship repair. While future "over the dock" users will be difficult to attract, this area should nonetheless be preserved for now as a maritime industrial zone. As such, this will likely involve larger, more traditionally industrial tenants. This then falls in line with the concept of creating a unique waterfront industrial district, as we have recommended.



The diagram above highlights those parcels within the RLFMP that are neither in the DPA or within Chapter 91 jurisdictional boundaries. The only regulatory constraints for these parcels is local zoning, which is currently Industrial and is limited to an FAR of 2.

Planning Scenarios

Part of the planning exercise, and perhaps the more fundamental point to be made about the future of the RLFMP, is the ability to capture its inherent real estate value, namely its land value under current and future market circumstances. Part of the justification for exploring this is to find out ways that future real estate investment might be able to subsidize needed improvements in its industrial, and in particular waterside, infrastructure for future uses. It is a way of both capturing value from the RLFMP, as well as preserving its mission as a haven for lower margin industrial businesses that provide blue collar jobs and serve the urban core.

In order to identify future development potential, we identified a number of parcels that are either a) "in-play" for future development, b) are currently not compatible with the spatial strategy outlined in the prior section or c) have been approved for development.

The following table provides a parcel by parcel description of future development opportunities within the RLFMP, which are also depicted in the massing graphic showing a possible full buildout scenario of the RLFMP.



Existing and Proposed Development Property									
Parcel ID			Existing Conditions			Build Out			
Address	Parcel ID #	Parcel	Land Area	Total Building SF	Retained Bldg SF	New Bldg SF	Total Bldg SF	Inputed FAR	Primary Use
1 Drydock Ave	0	A	50,933	320,000	320,000				
Park	1	A-1	see above	-	-		320,000	6.3	Hotel
5 Drydock Ave	2	B	95,824	54,230	54,230		54,230	0.6	Marine Industrial
1 Terminal St	3	C-1	69,249	-	-		-	0	Parking
5 Terminal St	4	C-2	41,901	-	-		-	0	Parking
6&10 Drydock Ave	5	D	205,519	212,500	212,500		212,500	1	Mixed-Industrial
1 Design Center	6	F	164,007	552,026	552,026		552,026	3.4	General Industrial
Design Center Parking Lot	7	F-1	50,459	-		201,876	201,876	4	Mixed-Industrial
339 Northern Ave	8/9	G/G1	51,479	24,898					
Bell Atlantic Switch Station	10	G-2	1,530	-					
22 Drydock	11	H	26,809	43,419		319,272	319,272	4	Mixed-Industrial
21-25 Drydock Ave	12	I	225,374	825,552	825,552		825,552	3.7	Mixed-Industrial
27 Drydock Ave	13	J	81,043	275,184	275,184		275,184	3.4	Mixed-Industrial
36 Drydock	14	K	76,820	7,454	7,454		7,454	0.1	Marine Industrial
Drydock #3	15	L	458,373	13,072		648,000	648,000	1.4	Mixed-Industrial
24-26 Drydock	16	L-1	32,324	32,214		250,000	250,000	7.7	Mixed-Industrial
7 Tide Street	17	L-2	58,400	36,110		233,600	233,600	4	General Industrial
Massport Marine Terminal	MMT	M-1	1,456,089	146,341	146,341	456,234	602,575	0.4	Marine Industrial
3 Dolphin Way	18	M	134,595	57,221	57,221		57,221	0.4	Marine Industrial
25 FID Kennedy Ave	21	N	141,425	157,000	157,000		157,000	1.1	General Industrial
19 FID Kennedy Ave	22	O	90,743	46,879					
3 Anchor Way	23	P	24,280	12,324		460,092	460,092	4	General Industrial
12 Channel Street	24	Q	69,182	356,450	356,450		356,450	5.2	General Industrial
4 Drydock Ave/ Channel St	25	Q-1	36,799	298,700	298,700		298,700	8.1	Commercial
6 Tide Street	26	R	179,791	380,800	380,800		380,800	2.1	General Industrial
306 Northern Ave	27	S-1	145,973	53,720	53,720		53,720	0.4	Marine Industrial
306 Northern Ave	27	S-2 / S-3	113,653	53,720	53,720	83,069	136,789	1.2	General Industrial
6 Harbor Street	28	T	142,438	135,748					
Northern Ave/Channel St	29	T-1	47,549	-		759,948	759,948	4	General Industrial
7 Channel St	30	U	45,310	27,049		181,240	181,240	4	General Industrial
Drydock #4	31	V	252,004	-	-		-	0	Marine Industrial
300 Northern Ave	32	V-1	86,716	6,605	6,605		6,605	0.1	Parking
Blue Hills Bank Pavilion	33	W	118,803	107,440	107,440		107,440	0.9	Marine Industrial
300 Northern Ave	34	W-1	13,619	6,233	6,233		6,233	0.5	Marine Industrial
310-314 Northern Ave	35	X	183,105	58,961		732,420	732,420	4	General Industrial
EDIC Parking Garage	36	Y	147,252	109,095	109,095		109,095	0.7	Parking
34 Drydock Ave	37	Z	58,825	-	-		-	0	Marine Industrial
Total			5,188,205	4,410,945	3,980,271	4,325,751	8,306,022		
Existing Development			2,395,654	3,780,210	3,780,210	-	3,780,210		
Additional Development Potential			2,792,551	630,735	200,061	4,325,751	4,525,812		

Existing and Proposed Development Property Table

Parcels Q1, A and A1	These parcels had development agreements in place in 2017 and have been built out as office and hotel developments respectively. These parcels are included in existing development calculations.
Parcel U	This parcel sits outside of Chapter 91 and DPA boundaries. Parcel U is no longer in use as a seafood processing facility
Parcels T and T1	These parcels sit outside of Chapter 91 and DPA boundaries. Parcel T1 is surface parking lot for truck staging and Parcel T formerly housed a vacant distribution warehouse. A 380,800 square foot development on combined Parcel T/T-1 was approved in December 2020.
Parcel F1	This is a surface parking lot leased by Jamestown and could be a development site in the future.
Parcels G, G1,G2, and H	The only building on these foursites is occupied by a variety of small industrial uses on Parcel G. If these parcels were to be assembled, it would be large enough for a single development site. The site could also accommodate an expansion of the central parking garage.
Parcel R	This site was designated for development by Kavanagh Advisory Group and Related Beal as a 360,000 sf R&D facility with some ground floor uses. It is included in existing development calculations. Phase 1 of the development is complete and Phase 2 is slated for completion in 2022.
Parcel X	The New Boston Seafood Center is part of the active seafood cluster in the RLFMP with over a dozen seafood processing companies. However, in the long-term the lifespan of this building will have expired and these businesses will be better suited in the RLFMP towards the water-side parcels. A mixed-industrial typology that allows for light industrial or commercial uses could potentially integrate some of these businesses if compatible.
Parcel V	While dry dock number 4 may not be suitable for maritime uses due to site condition. The rehabilitation of Pier 5 in for Sail Boston 2017 may allow for future pedestrian access to the water, possibly as open space, as well. Additional infrastructure improvements are required.
Parcel V1	As much of Parcel V1 sits over the Ted Williams Tunnel, this site would be an ideal location for future open space in the RLFMP. . The site will provide short-term parking for local businesses.
Parcels W and W1	Parcel W is the Leader Bank Pavilion. While it has been located in the RLFMP since the 1990's as a venue, it is still considered a "temporary use". It is legislated that if there is a viable marine industrial use for that parcel, the site could be redeveloped as such with proper notice. The parcel is within the DPA and currently part of the MER zone. Parcel W1, Yankee Lobster should be considered as part of this scenario.
Parcels C1 and C2	While initially under consideration for a new parking garage, these parcels could alternatively accommodate new maritime growth in the RLFMP including support for the cruise terminal.

Industrial Mixed Use Prototypes



Building 25 at The Brooklyn Navy Yard is part of a much larger industrial redevelopment district in Brooklyn. The complex is a mix of retrofit historic buildings and new construction.

New mixed-industrial buildings

While many cities have witnessed a new industrial life for historic manufacturing buildings through retrofitting, some cities are taking the old model and making it new again. New construction of vertical manufacturing buildings is becoming prevalent in cities with high land value and that show a demand for small scale manufacturers and fabricators. This mixed-use industrial prototype serves as a precedent for the proposed building typology in the RLFMP. Examples of this are found across the country and even here in Boston. This is a model applicable to industrial as classified by "light industrial/R & D", as well as manufacturing space.

The New York – Portland, OR

- Spec multi-story industrial building on Portland, OR waterfront.
- 100,000 SF / 5-stories / \$10 million project
- Part of a city initiative for mixed-use urban industrial districts

Brooklyn Navy Yard: Building 25 – New York, NY

- 90,000 square foot ground up construction
- 3 stories
- Multi-tenant building, part of the Brooklyn Navy Yard industrial district

Genzyme Manufacturing Facility – Boston, MA

- 300,000 GSF / 500 employees
- Vertical manufacturing of pharmaceuticals and R&D

The development model of industrial and commercial space is not new to the RLFMP either. One only has to look at the North Coast Seafood building to witness the integration of uses. The rising land values in the South Boston Waterfront area would drive such a vertical model of industrial uses. Large single tenant industrial buildings can no longer afford to be the model in the city. The businesses below located in the RLFMP represent a tenant mix and typology that reflects the sort of integrated use approach recommended for the future of the RLFMP.

Harpoon Brewery

- Single-tenant multi-story industrial building
- Manufacturing/distribution and commercial use (taproom and event space)
- 180 employees / 107,000 GSF

12 Channel Street



The New York - Portland, OR is a six story industrial office building that is a mix of small manufacturer and fabrication businesses. It is the first multi-story vertical manufacturing building built in Portland in 60 years and was done on spec.

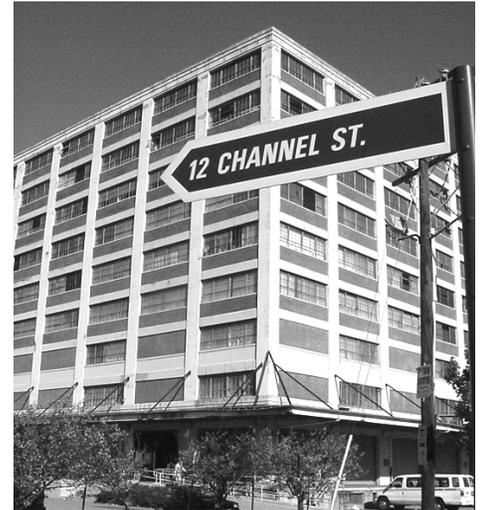
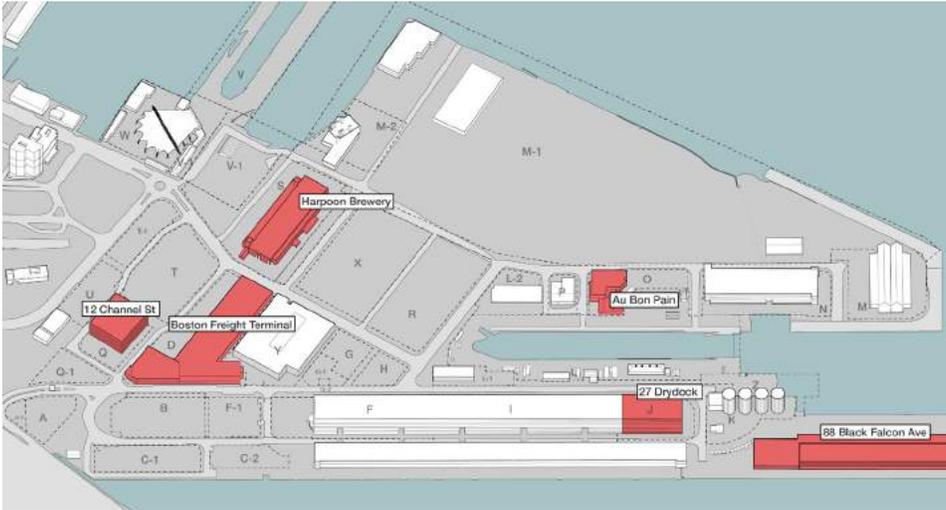
- 10 story / 350,000 GSF multi-tenant industrial building
- Manufacturing and administrative uses
- 20+ tenants / Fully-leased

27 Drydock Ave

- 282,000 SF / R&D/bio-tech tenants / fully occupied – 550 employees

88 Black Falcon Ave (outside RLFMP)

- 375,000 SF / 3-stories
- Ground floor industrial/distribution space with upper-story commercial



The industrial park has a number of **buildings that include ground floor industrial space mixed with commercial tenants on the upper floors**. This diagram illustrates just a few of those buildings. (note: Black Falcon Ave sits outside the RLFMP boundary)

12 Channel St is a mixed industrial building owned and leased. by the EDIC

Retail at the RLFMP

With an ever growing employee base, additional visitors and tourists from the Cruiseport, the RLFMP is witnessing further demand for retail amenities and restaurants. Currently, retail is distributed throughout the park at specific locations (Parcel D, Parcel B, the IDB, Harpoon Brewery and Yankee Lobster) that have on-site retail to serve local employees. New retail gateways have been constructed at Summer Street (Parcel A and Parcel Q1), which will act as the northern retail gateway along Northern Ave next to the Leader Bank Pavilion.

Despite these retail locations, there is still a lack of amenity retail for employees in the RLFMP. The IDB has recently installed shipping container retail and food service, as well as food trucks. Allowance for additional retail in this area should be measured by ensuring that it serves the employees on-site rather than creating a destination retail environment. Making an allowance of retail for individual parcels, as they



are redeveloped, would be a way to ensure that a) there is not a centralized retail/restaurant environment, which could potentially create a destination, as well as absorbing district retail potential, and b) that new industrial users would have the opportunity to sell their products on site, such as Harpoon Brewery and Yankee Lobster. As a contemporary industrial district, there is a demand for a smaller scale manufacturing economy that wants to be able to sell their product on site. A parcel specific retail strategy would permit this.

Operational Impacts of New Development: Transportation and Parking

Adequate multimodal transportation connections are critical to the successful development of the RLFMP. This section addresses the existing and future multimodal transportation and parking needs in RLFMP, considering the area's unique characteristics. Twenty-four-hour truck access, close connections to Logan Airport from the port, and demands for employee parking are some of the biggest opportunities and challenges to the area. Growing demand by the abutting neighborhoods, plus expected development in the area, including expanded research and development facilities and a new hotel, all need to be balanced in this corner of Boston's waterfront district.

Stantec conducted a transportation analysis of the RLFMP and surrounding network in 2021, including a discussion of Existing and No-Build conditions, the impacts from potential RLFMP Master Plan Update integration and future buildout, an evaluation of potential transportation infrastructure improvements, and a discussion of passenger and industrial traffic operations and its relationship with non-motorized travel. The full Stantec report is available as an appendix to this RLFMP Master

Plan Update.

The analysis finds that:

- The RLFMP accounts for approximately 6.3 million of the 28.8 million square foot (22%) growth in development in the South Boston Waterfront between the Existing and Build condition
- Under the Build condition, development in the RLFMP will represent only 16% of all development in the South Boston Waterfront
- Freight uses today occur off-cycle from peak network congestion. Just in time truck access for seafood and perishables might differ from this observation.
- Proposed infrastructure projects in and around the RLFMP will maintain and improve freight access for commercial and industrial uses, particularly marine industrial uses
- Proposed infrastructure projects, potential new transit services, the ongoing parking freeze, and new development review policies from the City strongly support increases in travel by non-drive alone modes encouraged by Go Boston 2030, the City's long-range transportation plan
- The future travel network will support an efficient truck freight access and operations and ensure safe pedestrian, bicycle, and transit accessibility, both within the RLFMP and throughout the South Boston Waterfront

Analysis Approach

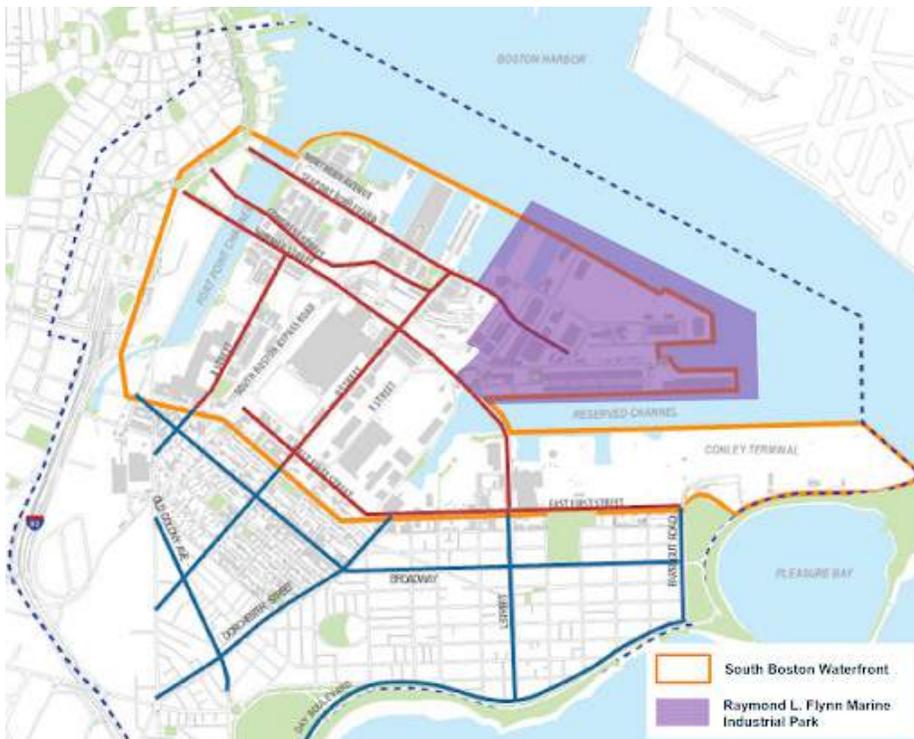
The analysis included an assessment of land use assumptions used to build modeling scenarios for Existing, No-Build, and Build conditions, consistent with the recent planning studies in the area.

The Existing condition is analyzed utilizing the existing roadway network with traffic volumes collected prior to the COVID-19 pandemic and adjusted based on development that has been constructed or approved since the traffic counts were performed.

The No-Build condition reflects growth in the broader South Boston Waterfront while excluding any anticipated growth in the RLFMP. With the exception of removing RLFMP-related growth, the methodology for creating the No-Build condition is consistent with that used for the South Boston Seaport Strategic Transit Plan and the Silver Line Capacity Study and other ongoing City and Commonwealth of Massachusetts planning processes.

The analysis under the Build condition studies the impact of a future condition where development potential in the RLFMP has been maximized, as opposed to a traditional approach where a development project's individual impacts are isolated. This leads to a conservative analysis as:

- Background growth in the study area assumes full buildout of the South Boston Waterfront, regardless of whether this occurs in reality.
- No horizon year is cited, unlike traditional modeling approaches which does not factor in additional growth following project implementation.
- No allowance for growth in work from home activity is assumed despite potential long-term changes in travel activity stemming from the COVID-19 pandemic.



The South Boston Waterfront Study area used for the South Boston Waterfront Sustainable Transportation Plan is reflected in an orange boundary.

Two Build condition scenarios were developed to reflect No-Build conditions with additional square footage added for RLFMP-related development. These scenarios are based on floor area ratios (FAR) of 2.0 and 4.0; FAR refers to the ratio of building area to a parcel's lot area. The Build scenario using a FAR of 4.0 buildout was used to model RLFMP growth on the travel network.

The Build condition under a FAR 4.0 scenario adds approximately 6.3M square feet of development to the South Boston Waterfront over No-Build conditions. The Build condition under a FAR 2.0 scenario adds approximately 4.2M square feet of development. Total development in the Build condition is approximately 60M square feet, a 12% increase in development over the No-Build condition.

Under the FAR 4.0 scenario, development (existing and projected) in the Park reflects approximately 9.5M square feet of development in the South Boston Waterfront, or 16% of all development.

Buildout assumptions are based off of internal BPDA projections for development throughout the South Boston Waterfront and modified over time for use in the 2015 South Boston Waterfront Sustainable Transportation Plan and the ongoing South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study. Growth in peak period vehicle, transit, and bike/ped travel was projected for the South Boston Waterfront as a whole and applied to the No-Build condition; vehicle growth accessing the RLFMP was projected separately for use in the Build condition.

Build Out



Projected development estimates for the South Boston Waterfront as reported for the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study.

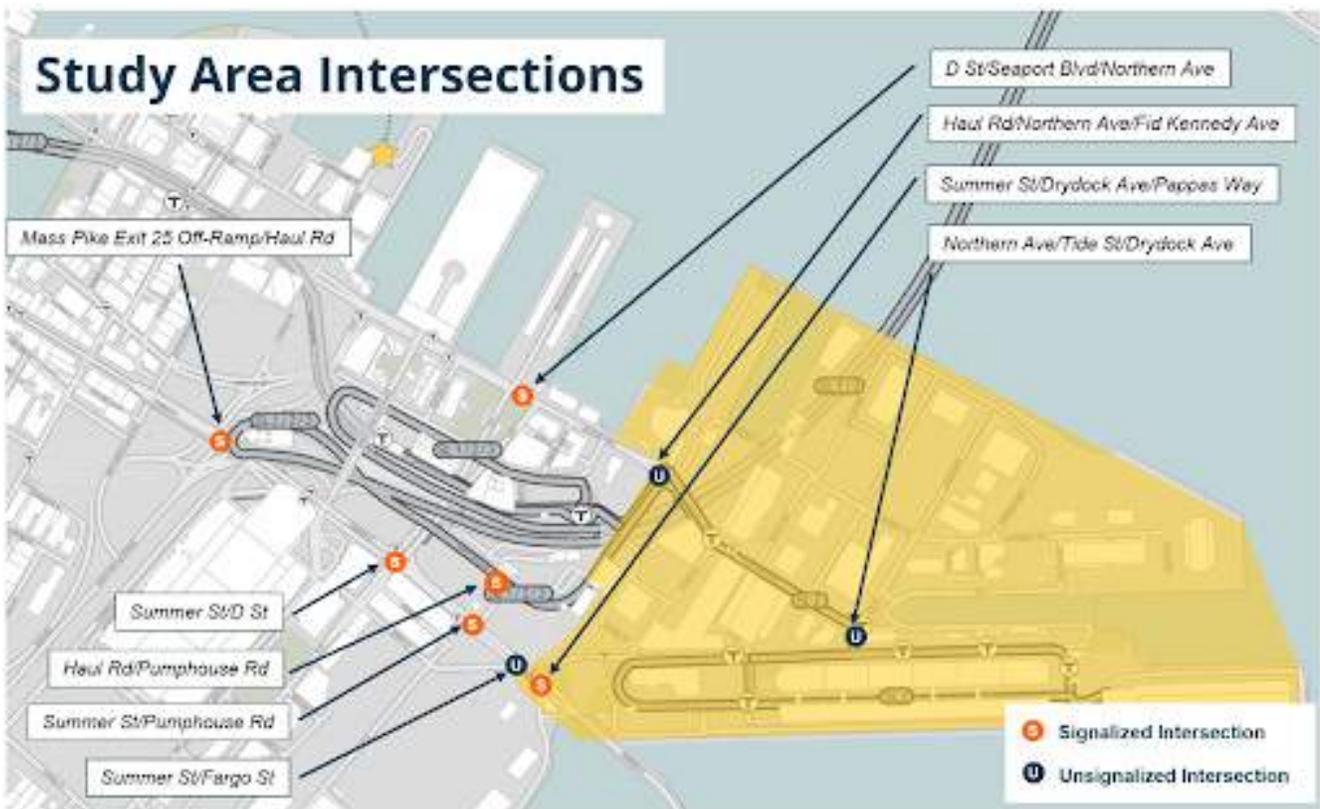
Vehicular Traffic

Vehicle operations within and in the vicinity of the RLFMP influence economic development and the ability to achieve full RLFMP buildout, as defined in this Master Plan Update. Particularly as it relates to land uses reliant on freight, a reliable travel network will dictate the willingness of existing tenants to remain in the RLFMP and future tenants to take tenancy. For industrial uses, work shifts which begin and end during transit off-peak hours further emphasize the importance of access to the RLFMP by automobile.

Yet the City of Boston, and increasingly the Greater Boston region, have recognized that supporting driving activity as a means to bring about economic development has limited returns. The regional travel network is regularly congested during peak travel periods; there is limited ability

to expand highway networks and the environmental effects of automobile use are exacerbating climate change. The Go Boston 2030 long-range transportation plan, released in 2016, recognizes this constraint for the City of Boston. A goal of the plan is to halve driving activity by 2030 and increase use of transit, walking, and bicycling.

Nine intersections were identified to carry out individual intersection capacity analysis in coordination with MEPA as shown in the figure below. The study area intersections selected for this analysis encompass those which generally provide access to the RLFMP; these include intersections providing direct access (such as Summer Street/Drydock Avenue/Pappas Way) and those accessed by a subset of vehicle traffic coming to/from the RLFMP (such as Summer Street/D Street).



Study Area Intersections

As shown in the analysis presented in the appendix, vehicle traffic under the Existing condition operates at an acceptable level at all study area intersections, as well as for most intersection approaches.

As would be expected with significant growth in background traffic, many intersections and intersection approaches operate in a deficient condition in the No-Build condition. It should be emphasized that the No-Build network reflects complete buildout of the South Boston Waterfront. Unlike many operational analyses for development projects, no horizon year is cited for this analysis as the No-Build and Build years are meant to reflect an undefined future condition where complete buildout has been achieved.

The RLFMP future development illustrated in the Build condition is expected to have an incrementally negative impact on the studied roadway network with the addition of new trip generation. The proposed transportation projects that could be undertaken to mitigate the impacts of new vehicular traffic under the No-Build and Build conditions are identified later in this section.

With the amount of future development proposed within the entirety of the South Boston Waterfront, facilitating all future travel to the area by private automobile is not practical. The City's ongoing efforts to support transit usage, through infrastructure projects such as the Summer Street Bus/Truck Lanes and planning studies such as the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study, aim to proactively address significant increases in travel activity by transit. Parking restrictions, bicycle and pedestrian planning and network improvements, and transportation demand management (TDM) are other efforts to further reduce driving as a means to access the RLFMP.

Maintaining Freight Efficiency

Freight operations out of the RLFMP are critical to the region's industrial ecosystem. The RLFMP's core of seafood processing, manufacturing, and design activity is steadily accompanied by new development projects bringing life sciences, technology, and research to the neighborhood. The challenge for the RLFMP is ensuring these industrial uses, particularly marine industrial uses, are accommodated given the anticipated growth within the RLFMP and throughout the broader South Boston Waterfront.

The Master Plan Update's analysis of transportation impacts associated with future buildout of the RLFMP operated under the core assumption that the continued success of these industrial uses was paramount. In particular, marine industrial uses associated with the Massport Marine Terminal and the RLFMP must have reliable access to the region's highway network. With the anticipated growth of bicycling and walking activity, particularly in the vicinity of transit services such as the SL2, minimizing the risk of conflict between vulnerable road users and freight traffic is also of utmost importance.

The City is actively planning roadway improvement projects which will re-define RLFMP and South Boston Waterfront truck routes, directing freight activity to roadways of more industrial nature and preserving corridors with high amounts of foot traffic from increased truck travel. The anticipated Haul Road/Summer Street/Drydock Avenue Connector, E Street Connector (and the Cypher Street to E Street Connector), Haul Road/Northern Avenue/Fid Kennedy Avenue realignment, and Fid Kennedy Avenue improvement projects will direct truck traffic to better utilize the E Street, Haul Road, and Fid Kennedy Avenue corridors to access industrial uses inside the RLFMP. These improvements will divert general vehicle traffic to the Drydock Avenue corridor in order to enhance truck operations and, in combination with the Northern Avenue Reconstruction project, provide quality bicycle and pedestrian connections and access to transit within the RLFMP and accommodated safely with truck activity.

Using data collected as part of recent development projects, an evaluation of freight operations on study area roadways found that freight users commonly access the RLFMP outside of peak travel periods due to the nature of business operations not requiring peak period access. Traditional commuting peak vehicle travel periods for the Haul Road and Northern Avenue corridors experience lower amounts of truck traffic than surrounding time periods, indicating an avoidance of industrial uses to schedule deliveries during times of peak congestion. The concentration of trucks on roadways as a percentage of all roadway traffic generally peaks during overnight hours.

The figure below shows existing freight facilities and truck routes in the South Boston Waterfront area as of November 2017. In addition to Massport Marine Terminal and the Boston Marine Industrial Park in the RLFMP, major freight facilities in the area include the Fargo Street Terminal, the Boston Convention and Exhibition Center, and the Conley Container Terminal. The importance of the Haul Road for freight operations is emphasized below.

Accommodating Active Transportation

Understanding the need to shift from single-occupancy cars as a result of roadway and parking capacity restrictions, transit, bicycling, and walking will play a major role in the transportation environment of the RLFMP in the coming years. Transit connections via the Silver Line, Route 7, and potential future ferry services require a robust walking and bicycling network to provide last-

mile connections between visitors and destinations. Access to transit stops and shared parking facilities cannot be safely made without attention to bicycle infrastructure and the pedestrian right-of-way.

The bicycle network in the Park has not evolved as robustly as the rest of the South Boston Waterfront, and falls short of achieving the recommended best practice in bicycle planning.

Existing sharrows and low-quality bicycle facilities exist on Fid Kennedy Avenue, Northern Avenue, and Drydock Avenue, although the deteriorating condition of the pavement markings do not suggest bicycles are a priority on the roadways. Aside from three (3) Bluebike stations (one at Congress Street/Northern Avenue and two at the Innovation and Design Center), there is no publicly available bicycle parking in the RLFMP. These inadequate



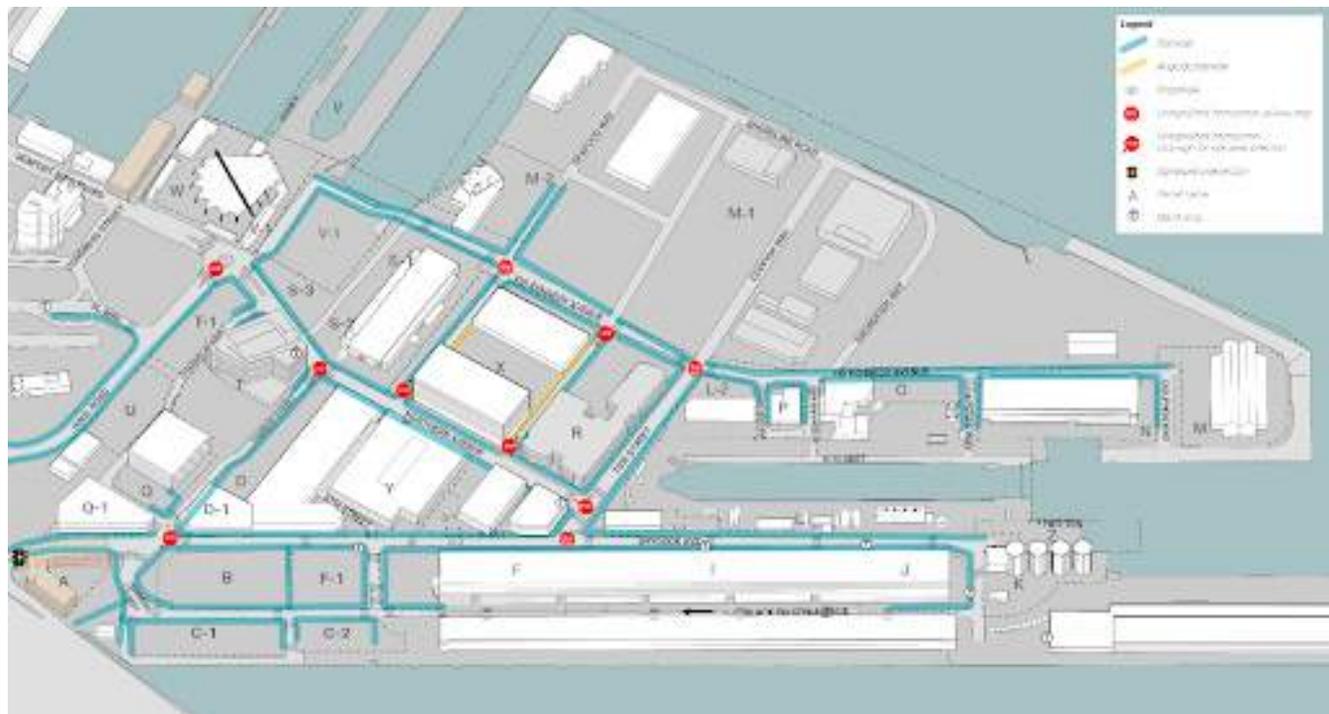
Existing (as of November 2017) and proposed truck routes in the South Boston Waterfront (source: Massport)

bicycle conditions exist despite high volumes of bicycle counts. Persistent Bluebikes patterns show that there is a demand for quality bicycle facilities in the area.

Pedestrian accommodations in the RLFMP continue to improve. The existing sidewalk and crosswalk networks provide pedestrian-safe access at most intersections and in the less industrial areas of the RLFMP.

Due to the nature of industry in the RLFMP, sidewalks and pedestrian connections are isolated to the areas of the RLFMP with the least potential for conflict with trucks, accessing more industrial areas. The figure below shows the pedestrian infrastructure and its connections to nearby bus stops, parking lots, and bicycle parking facilities, as well as the connections to the greater South Boston Waterfront at the Northern Avenue and Summer Street gateway points.

The most significant improvement for bicyclists and pedestrians within the RLFMP will be achieved by the Northern Avenue Reconstruction project, which will move forward in a No-Build condition. Once roadway and freight improvement projects are in place, the Northern Avenue corridor within the Park will facilitate safe bicycle and pedestrian access from intra-Park locations north and west to the Northern Avenue corridor and Downtown Boston with less conflicts with freight travel than at present. Protected bicycle accommodations along Summer Street and a potential bicycle parking garage at the Fid Kennedy Avenue/Tide Street intersection will also support improved bicycle access to and within the Park. Any roadway improvement projects, including construction of the Haul Road/ Summer Street/Drydock Avenue Connector, will be subject to City of Boston standards for equal priority during the design process between pedestrian, bicyclist, transit, and vehicle users.



Pedestrian and multimodal infrastructure in the Park (source: BPDA)



Proposed bicycle network in the RLFMP

Transit Considerations

The RLFMP is well-connected to the rest of the South Boston Seaport and Downtown Boston via the MBTA and private shuttle transit networks that serve the Park. The Silver Line 2 provides bus service within the Park and connections to World Trade Center, Courthouse, and South Station. The MBTA Silver Line service, local bus routes, and private shuttles supported by the Seaport TMA and the Massachusetts Convention Center Authority (MCCA), as well as other area businesses, also serve the RLFMP. One transfer to other transit services connect the RLFMP to East Boston and Chelsea on the Silver Line 1, the South Boston neighborhood, and communities along the Red Line out of South Station, the Blue Line out of Aquarium, the Orange Line out of North Station, and commuter rail services out of both South Station and North Station. Figure on the right shows the existing transit network avail-

able in the South Boston Seaport and the RLFMP.

Existing ferry service does not directly serve the Park but can be accessed from Fan Pier via the SL2 and Route 4 services. Ferry services currently connect to North Station with 20-minute headways during the AM and PM peak commuting hours.

To achieve a more aggressive transit mode share in the RLFMP, it is vital that the existing transit system be supplemented with additional service and connections. In 2020, the MBTA released a draft Silver Line Capacity Study. The report indicates that the Silver Line infrastructure, under existing conditions, cannot support more service without significant changes to the system.

Transit users will be served under the No-Build condition by the Summer Street Bus/Truck Lanes, which will significantly improve transit operations

along the Summer Street corridor for the existing Route 7 service as well as potential future services, such as the North Station/South Station/Seaport direct bus link.

The ongoing South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study each identify several mid and long-term improvements to improve transit services in the Seaport. The City of Boston will work closely with MBTA, MassDOT, and other affected stakeholders to advance these improvement options in order to improve transit operations in the South Boston

Waterfront and within the RLFMP. Future development projects in the Park subject to Article 80 review will be required to ensure that users can access project sites via transit services; this mechanism ties future development with broader progress towards implementation of these ideas.

Facilitating transit access for RLFMP-generated growth under FAR 2.0 and FAR 4.0 buildout remains the primary focus for non-freight travel in a future condition.



Transit routes in the South Boston Waterfront (source: BTD, MBTA)

Challenges for Parking in the RLFMP

Due to its relatively remote location (relative to other employment centers in the urban core) and the origin point for many of the employees, almost three quarters of RLFMP employees were reported to drive to work in 2017. However, with the uptick of new development and new R&D tenants in the RLFMP, an increasing number of employees rely on transit to get to work. This is partly due to the high demand and short supply of parking, but also because a younger workforce demographic that tends to take transit regardless. Many of the businesses surveyed suggested the same; that employees are increasingly using transit to commute, thereby reducing the demand for parking.

There is, nonetheless, a perceived shortage of parking in the RLFMP, and at times a literal shortage, as well.

The RLFMP is within the boundaries of the South Boston Parking Freeze and is subject to the regulations of the policy. The South Boston Parking Freeze allows a maximum of 30,389 off-street parking spaces in South Boston. As of March 17, 2021 there were 1,307 spaces available in the parking freeze bank. Under this agreement, the BPDA has permitted 4,571 of the 30,389 off-street parking spaces and Massport is permitted 935 parking spaces from the South Boston bank, for a total of 5,506 parking spaces within the RLFMP.

If needed and through a process with the Boston Air Pollution Control Commission, an additional allotment of spaces could be requested from the available 1,307 in the parking freeze bank.

The parking supply within the RLFMP is managed by BPDA and Massport. Rather than requiring individual parcels and developments to build and

manage dedicated parking, the BPDA allocates a set number of spaces per development. The spaces allocated are determined through the development permitting process. While this practice is not standard for developments across the city or region, it is a national best practice. Limiting the parking allocations within the RLFMP allows the BPDA to predict vehicle travel into the site and parking demand within the RLFMP. This parking strategy supports limiting parking within the RLFMP and a shift towards alternative transportation modes. The practice is a result of the South Boston Waterfront Parking Freeze limiting the RLFMP to 4,571 parking spaces.

Existing developments and parking allocations account for 90% of the permitted parking supply in the RLFMP. Additional development in the RLFMP cannot be fully accommodated by drive alone commuting, especially during peak periods of parking utilization within the RLFMP. The Master Plan Update proposes reliance on shared parking practices and support for alternative transportation options, including transit, bicycling, and robust TDM strategies, to counteract these parking limitations.

Parcels Y, C-1, C-2, and V-1 are shared parking facilities, managed by the BPDA. The agency encourages shared parking within the Marine Park, and does so by managing the total number of spaces and parking prices to meet market demand, as well as the BPDA's goals around parking management and transportation demand management. The BPDA intends to continue their focus on TDM, transit, and bicycle and pedestrian access within the RLFMP, providing an environment that reduces the need for parking. The shared parking facilities will continue to play a role in this effort, and the BPDA will adjust supply and pricing as needed.

The Boston Transportation Department has also

introduced parking ratio maximums throughout the city. These ratios are customized according to a pre-defined Mobility Score target which will also be utilized for the TDM Point System and associated TDM commitments, detailed later in full transportation report in the appendix. The new ratios are expected to result in a significant reduction in the amount of on-site parking built for development projects once initiated.

With pending and new development increasing, the allocation of parking spaces is of utmost concern to the Agency today. With the new parking ratios, the permitted and planned projects would require more parking than is currently allocated under the Freeze if these projects were to build to the maximum allowed parking ratio.

This Master Plan Update will consider the existing parking ratios and land-use mix to explore options, including adjusting the ratios, applying for more spaces under the parking freeze, and considering the impact of transportation demand management measures on the demand for parking.

Mitigating the Transportation and Parking Impacts of Future Development

As the analysis shows, buildout of the South Boston Waterfront as a whole will place a strain on roadway and transit networks in the neighborhood. Several roadway, transit, and bicycle/pedestrian improvement projects will take place in the South Boston Waterfront regardless of the level of growth in the RLFMP, which are reflected in the analysis's No-Build operations.

Additional infrastructure projects, detailed below, should be implemented in a final buildout of the South Boston Waterfront. These projects are in various stages of planning; some have achieved 100% design and are anticipated to be in place within the next few years; others may be decades away due to the time needed for land acquisition, environmental review, and securing of funding.

Today, the RLFMP development makes up 11% of all development in the South Boston Waterfront; even at an aggressive FAR 4.0 growth scenario RLFMP development will only make up 16% of all South Boston Waterfront square footage in a full-build condition. The concentration of industrial uses in the RLFMP, with fewer travel impacts during peak travel periods, will further limit the degree to which growth in the RLFMP will affect operations throughout the South Boston Waterfront.

A particular focus of this analysis has been freight conditions; vehicle growth in the FAR 2.0 and FAR 4.0 conditions accounts for a conservative estimate of freight impacts in accordance with traffic levels observed today. As traffic patterns show, freight naturally occupies vehicle space when travel conditions are not at their most congested. This condition is expected to remain in place with future development. As all but approximately 40,000 square feet of the total marine industrial growth is present in the FAR 2.0 scenario, freight access to and from the RLFMP will continue to be a point of emphasis.

Mitigation which will be pursued under any buildout scenario in the RLFMP, along with broader South Boston Waterfront growth, include the following projects highlighted in the table below.

With the mitigation improvements above, the future travel network is expected to support efficient truck freight access and ensure safe pedestrian, bicycle, and transit accessibility, both within the RLFMP and throughout the South Boston Waterfront.

Raymond L. Flynn Marine Industrial Park Final Master Plan Update - Transportation Mitigation

Roadway							
Project	Description	Jurisdiction	Timeframe	Planning Status	Funding Status	Projected Cost	
Northern Avenue/Haul Road/Fid Kennedy Avenue Intersection Realignment and Signalization	Realignment of Fid Kennedy Avenue approach to improve traffic operations and improve truck access to Fid Kennedy Avenue Corridor as well as signalization of intersection to improve traffic operations	BPDA Massport BTD/PPVD	Short-Term	Concept Design	Partial Design Funding as part of Developer Mitigation	N/A	
Fid Kennedy Avenue Realignment	Straightening of nearly 90 degree turn along Fid Kennedy Avenue to improve truck access along Fid Kennedy Avenue corridor	BPDA BTD/PPVD	Long-Term	Concept Design	Partial Design Funding	N/A	
New Drydock Avenue Connection to Haul Road	Extension of Haul Road and Drydock Avenue to create a new signalized intersection; construction of New Road to connect new intersection with realigned Summer Street/Pascas Way intersection	BPDA BTD/PPVD Massport	Long-Term	Concept Design	Not Identified	N/A	
New E Street Connection to Summer Street	Extension of E Street to meet Summer Street/Pumphouse Road intersection	MassDOT BTD/PPVD BPDA	Long-Term	25% Design	Identified	~\$11 million, w/ Cypher St Extension	

Parking							
Project	Description	Jurisdiction	Timeframe	Planning Status	Funding Status	Projected Cost	
Adherence to Maximum Parking Ratios	Adherence to maximum parking ratios in advanced stages of development by BTD	BPDA/BTD	Long-Term	Complete	N/A	N/A	

Active Transportation							
Project	Description	Jurisdiction	Timeframe	Planning Status	Funding Status	Projected Cost	
Northern Ave. Reconstruction	Reconstruction of Northern Avenue to provide six-foot separated bicycle lanes in each direction and improve pedestrian accommodations	BPDA	Short-Term	100% Design	Identified	\$1.5 million	
Summer Street Bicycle Lanes	Protected bicycle lanes along Summer Street corridor; lanes are currently in place between Melcher Street and West Service Road	BTD/PPVD	Short-Term	100% Design	Partial Funding	\$800,000	
Drydock Avenue	Complete Streets upgrades along Drydock Avenue	BPDA	Short-Term	100% Design	Identified	N/A	
Complete Streets Upgrades	All BPDA and BTD roadway improvements will comply with Complete Streets guidelines put forth by BTD	BPDA BTD/PPVD	Long-Term	Complete	N/A	N/A	
Bicycle Parking Garage	Centralized, dedicated parking facility for bicycles in RLFMP	BTD	Long-Term	Concept only	Not Identified	N/A	

Transit							
Project	Description	Jurisdiction	Timeframe	Planning Status	Funding Status	Projected Cost	
Summer Street Bus/Truck Lanes	Dedicated, combined bus and truck lanes along Summer Street; lanes may operate as center or side-running	BTD/PPVD	Short-Term	Concept Design	Partial	~\$200,000 pilot, \$1-10 million permanent	
North Station/South Station/South Boston Waterfront Bus Service	Bus service between North Station and the South Boston Waterfront via South Station	BTD MBTA	Long-Term	Concept Design	Not Identified	N/A	
Seaport Circulator	Privately operated, publicly accessible circulating bus within South Boston Seaport, operating between 7 AM and 7 PM with 10-15 minute headways	Seaport TMA BTD	Short-Term	Concept Design	Not Identified	N/A	
Nubian Square / RLFMP Shuttle	Shuttle service (privately-operated, open to the public) between Nubian Square and RLFMP, operating with 10-15 minute peak headways and 25-35 minute off-peak headways	Developers BTD	Short-Term	Concept Design	Identified	N/A	
Pier 10 Ferry Terminal Revitalization and Service	Revitalization of Pier 10 ferry terminal with new service from Fan Pier or extension of existing services between Fan Pier and Lovjoy Wharf	Undetermined	Long-Term	Concept Design	Partial	N/A	
Fleet Expansions / Bus Platooning for SL1 / 2	Fleet expansion or bus platooning for Silver Line services to increase passenger capacity	MBTA	Mid-Term	Concept Design	Not Identified	N/A	
Consolidation of Private Shuttles	Consolidation of private shuttles offering service from between downtown locations (including South Station) and South Boston Waterfront for higher frequencies and congestion relief	BTD MCCA Seaport TMA	Long-Term	Concept only	Not Identified	N/A	
Expansion of Local and Regional Ferry Services	Introduction of ferry services to Fan Pier and Pier 10 from Downtown, Charlestown, and East Boston and service enhancement of regional ferry services from Salem, Lynn, Hingham to Fan Pier	Undetermined	Long-Term	Concept only	Not Identified	N/A	

Transportation Demand Management							
Project	Description	Jurisdiction	Timeframe	Planning Status	Funding Status	Projected Cost	
GoBoston 2030 Mode Share Targets	Adherence to Go Boston 2030 mode share targets for future non-marine industrial buildout in RLFMP	BPDA/BTD	Long-Term	Complete	N/A	N/A	
Adherence to TDM Point System Standards	Adherence to TDM point system standards in advanced stages of development by BTD	BPDA/BTD	Long-Term	Complete	N/A	N/A	

A Sustainable RLFMP: Climate Adaptation and Shared Energy

The City of Boston sits at the forefront of global climate change both as a coastal city vulnerable to the impacts of rising seas and a national leader in resilient and sustainable development and building practices. Updates to the Master Plan draw upon leadership practices to reduce the risks of our changing climate and to ensure Boston and the RLFMP thrive long into the future.

The following guidelines and standards recognize the responsibilities and unique opportunities of MassPort and BPDA asset stewardship and, with our tenants and redevelopment partners, seek to lead by example and to drive innovation.

Recommendations focus on three broad areas of practices:

- Resilient Development in the RLFMP
- Sustainable Development in the RLFMP
- Innovation and Excellence

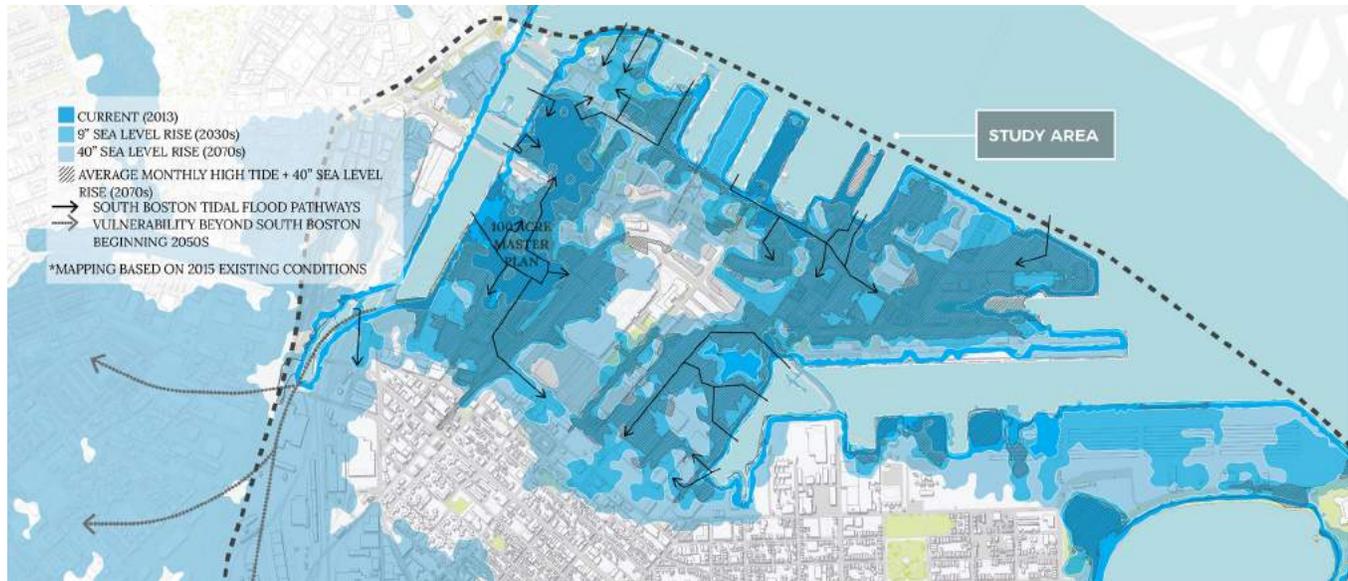
Public agency development Requests for Proposals and future development and infrastructure projects should include strategies in each area of practice and prioritize synergetic solutions with multiple benefits.

Resilient Development in the RLFMP

Climate resilience and preparedness planning for the RLFMP has been guided by the citywide resilience plan, Climate Ready Boston (2016) and the Coastal Resilience Solutions for South Boston report (2018). These two documents provide an analysis of the vulnerabilities of the South Boston Waterfront and RLFMP to storm surge and future sea level rise, illustrate flood pathways over various time frames and frame the types of district scale flood protective alignments and design strategies to provide comprehensive protection. These documents were developed utilizing the latest climate science and modeling on coastal flooding and sea level rise and were subject to significant input from South Boston residents, businesses and stakeholders. Given most all of the South Boston Waterfront and the RLFMP is filled land, the existing grades and elevations of the district make it susceptible to future flooding. Based upon the Climate Ready analysis a 1% chance

storm event by mid-century will flood much of the district. Consistent with the Climate Ready resilience strategy the BPDA has been advancing layers of resilience to coastal flooding through the promotion of resilient design measures at the site and building scale, as well as resilience planning for infrastructure upgrades and broader district scale measures.

Regarding resilience at the parcel level within the RLFMP, all Requests for Proposals for the disposition of properties must address how the project site, building design and building systems will be prepared for future climate impacts and risks. Proponents are required to respond to the Article 37 Green Building and Climate Resiliency Guidelines and Checklist as part of their RFP response, as well as any project submission through the Article 80 Development Review process. Through project review proponents describe measures to eliminate, reduce, and mitigate potential impacts based upon the framing of risk and probabilities for increased heat, precipitation and sea level rise in the Boston Research Advisory Group report (2016) and Climate Ready Boston report (2016). Along with addressing Green House Gas reduction and on-site energy, covered in Section XX, proponents must provide strategies on how their project will mitigate heat retention and exposure in and around the building with up to 90 days of 90-degree heat; address up to an additional inch of precipitation beyond the current 10-year 24-hour stormwater event; and, mitigate flooding on site and contributions to flooding in the area. Additionally, all projects must address how they will utilize green infrastructure to infiltrate the first 1.25" of precipitation for buildings over 100,000 square feet per the BPDA's Smart Utilities Policy, and respond to the BPDA's Sea Level Rise Design Flood Elevation which is comprised of a top of water elevation with a 1% chance coastal flood event with 40-inches of sea level rise and one or two feet of freeboard based upon the type of use. The BPDA is using 40-inches of sea level rise for policy and planning purposes based upon the BRAG report and Boston Harbor Flood Risk Model, which anticipate that dimension of sea level rise sometime between 2070 and 2100, which is within the useful design life of projects currently under review.



RLFMP Flood Extents and Pathways - Climate Ready South Boston 2018

The BPDA has also developed Coastal Flood Resilience Design Guidelines (2019) and will implement this year a Coastal Flood Resilience Zoning Overlay, which will promote resilience within the RLFMP. The Design Guidelines provide direction to project proponents on how to evaluate coastal flood risk using the BPDA's Sea Level Rise Flood Hazard Map viewer, and a number of resilient design strategies that can be implemented for new projects and retrofits to improve building resilience to coastal flood impacts. The general industrial typology that is most prevalent in the RLFMP is addressed in the Case Study section of the Guidelines and describe incremental retrofit and long term strategies of integrating flood resilience into buildings. The Flood Resilience Zoning Overlay will apply to all areas of the RLFMP due to its vulnerability to the 1% chance storm event in 2070 with 40-inches of Sea Level Rise, and includes dimensional and use provisions to facilitate resilient design. Future projects will undergo Resilience Review as part of the Article 80 process in accordance with the Zoning Overlay where the flood resilience design measures in the Guidelines will need to be integrated into the project.

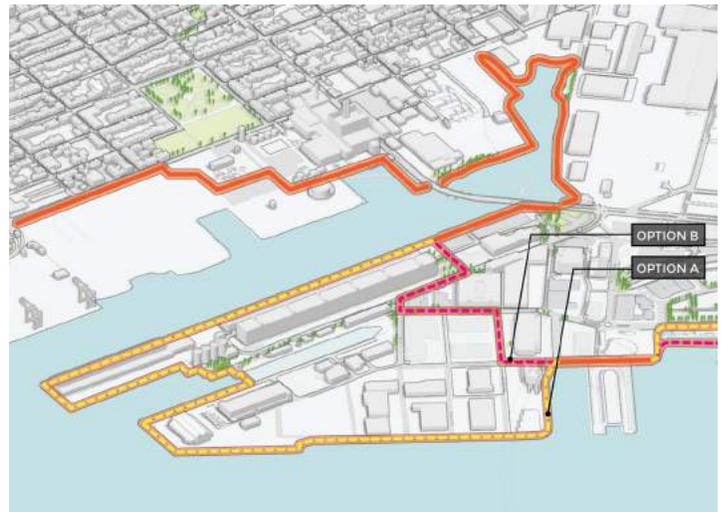
Existing tenants in the RLFMP are also advancing resilience. The Massachusetts Port Authority (Massport) is a long-term tenant and holds the approximately 40 acre Massport Marine Terminal, as well as the adjacent 88 Black Falcon property and the Flynn Cruiseport facility. Massport has developed a Floodproofing Design Guide (2015) which is applicable to all new structures, substantial improvements and retrofits on Massport property. The Guide specifies Design Flood Elevations (DFE) for existing facilities as the maximum water elevation with a 0.2%

annual probability of exceedance in 2030, plus 3-feet of freeboard (el. 13.7ft NAVD 88), and DFE for new buildings as the maximum water elevation with a 0.2% annual probability in 2070 plus 3-feet of freeboard (el. 17ft NAVD88). The DFEs are utilized for determining design loads, structural calculations, ground floor elevations and flood-proofing design. The Massport Guidelines are consistent with the design flood elevation measures that the BPDA is promoting.

District scale flood protection alignments and strategies for the RLFMP have been framed in the Climate Ready South Boston report (2018). The report identifies current flood pathways and those that will be more prominent as soon as 2030 with a 1% chance storm event and 9-inches of sea level rise. Early flood pathways include the north-eastern edge of the RLFMP to the east of Drydock 4, which combines with flood pathways from Seaport Boulevard to the west of the park, and another pathway at the North Jetty. District scale options for both the RLFMP and the adjacent Reserved Channel must be combined with coastal resilience design strategies in other areas to be effective to the 1% annual chance flood elevation with 9-inches of sea level rise and beyond. Due to the low-lying land in the area, coastal resilience design strategies can be flanked by flood pathways originating in other parts of South Boston. The Climate Ready South Boston report recommends evaluation of two potential district scale flood protection alignments, one along the shoreline of the RLFMP and another interior to the Marine Park. The shoreline measures could include a system of flood walls or sea walls with cost estimates in the range of \$197-\$228 million, and the inland options would involve integrated interior flood walls, flood

gates and elevated roads with an estimated cost of \$132-\$193 million. The interior alignment costs do not include the flood proofing of buildings to the water-side of the protective measures.

Further analysis is necessary to determine the feasibility of these alignments, requiring an engineering and design analysis of existing site and infrastructure conditions, and an evaluation of effectiveness of potential flood protection measures as well as cost. Prioritization of flood mitigation projects will be based upon the recommendations of the Climate Ready South Boston report and the locations of identified flood pathways. Some of the issues that will have to be addressed through further study for the shoreline alignment include the engineering and regulatory feasibility of structural walls and earthen features, maintaining ship to shore connections, and the location of structures on land or in water. Inland alignment protection analysis will focus on the feasibility of connecting and deploying a number of flood prevention systems, and the functionality of elevated roads and impacts on subgrade utilities. The City of Boston Public Works Department’s Climate Resilient Design Standards and Guidelines, which provide

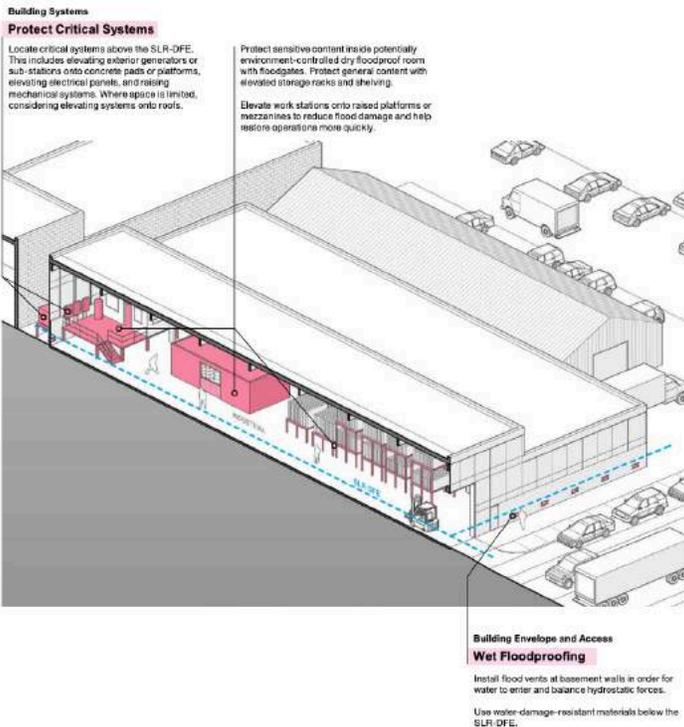


Potential Flood Protection Alignments - Climate Ready South Boston 2018

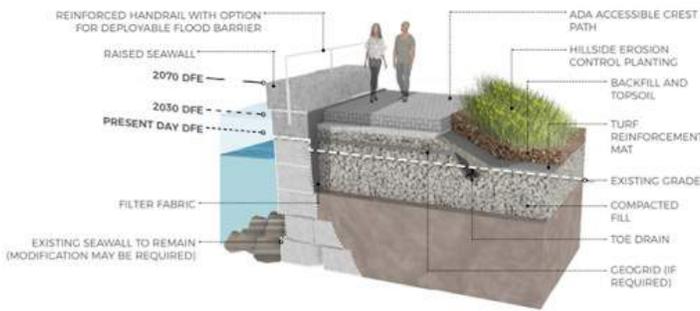
design, maintenance and cost consideration for a number of flood barrier systems for protection of the public right-of-way, will inform the recommended flood prevention alignment developed through this process.

Since the Climate Ready South Boston report the BPDA has been working to better understand vulnerabilities to coastal flooding in the Marine Park, develop resilience funding mechanisms, and ensure resilience is a component of new infrastructure projects. The BPDA has had a consultant prepare a preliminary analysis of tasks and costs for evaluating the flood alignment solutions for the Marine Park (\$580k - \$1M) and has included a request in the FY22 budget to have the study conducted. To develop flood protection measures over time, the BPDA also received authorization from its Board of Directors to establish a Resilience Fund for the RLFMP where tenants in the park will pay a pro rata share of BPDA and/or City of Boston flood mitigation investments in the Marine Park. Payments will be assessed the year after an infrastructure investment is completed and will be amortized over 30 years at the interest rate available to the BPDA to finance the investment at the time. Annual payment will be capped at \$250,000 per year, escalating annually based on the rate of inflation. Additionally, there are planning and capital projects envisioned to support resilience in the Marine Park. As part of Pembroke’s project to revitalize Commonwealth Pier, funds have been provided to begin resilience planning work on Seaport Boulevard, which will function as a contributing flood pathway into the RLFMP. The BPDA Real Estate Division also will be releasing a Request for Proposals for Harborwalk and

Long-term Strategy



General Industrial Flood Protection Strategies - BPDA Coastal Flood Resilience Design Guidelines 2019



Standards for Elevated Shoreline - PWD Climate Resilient Design Standards & Guidelines 2018

Resilience improvements at Wharf 8 and Drydock No. 4 to develop a design and construction documents to address coastal vulnerability and a primary flood pathway into the Marine Park. The Division has more recently also submitted an FY2021 EEA Dam and Seawall Construction Grant Application for repair and restoration of the South Jetty seawall which will be designed with adequate structural capacity to support a sea wall or berm to Climate Ready flood prevention design elevations.

The BPDA will continue to prioritize resilience in its ongoing tenant designations and infrastructure upgrades, look for grant and resilience funding opportunities, advance innovative resilience funding mechanisms, and develop a resilience planning framework to better understand the most feasible and effective district scale strategies to protect the Marine Park well into the future.

Sustainable Development in the RLFMP

“Buildings account for approximately 71 percent of our community carbon emissions...”

Reducing carbon emissions from the built environment including the construction and operation of urban infrastructure and buildings is critical to reducing the extent and impacts of climate change. The Boston Climate Action Plan 2019 Update sets building decarbonization as our top priority.

Zero Net Carbon Buildings

Boston’s Carbon Neutral 2050 goals envision all new buildings constructed to zero net carbon or energy positive performance now and the ongoing decarbonization of existing buildings to zero net carbon performance over time.

In September 2020, the BPDA launched the Zero Net Carbon (ZNC) Building Zoning Initiative to update Zoning Article 37 and to include zero net carbon standard for new construction. The proposed standard prioritizes the following strategies:

1. Low Carbon Buildings and Structures - draft recommendations include carbon emission intensity targets and percentile carbon emission reduction targets for modeled performance based on building typology and use. The goal is to ensure projects prioritize design solutions that reduce building emissions before utilizing renewable energy sources to achieve zero net carbon performance. Strategies include:

Building Enclosures

- Managed Window to Wall Ratios and Efficient Windows
- Enhanced Exterior Envelopes with Continuous Insulation
- Low Air Infiltration Rates

Building Systems

- All Efficient Electric Heating/Cooling and Hot Water Systems
- Dedicated Outside Air Systems
- Energy Recovery Ventilation

2. On-site Renewable Energy - draft recommendations establish solar zones and exclusions and exemption areas to ensure building projects maximize and install renewable energy systems. Strategies include:

- Solar Renewable Energy - Optimize site and building design for solar PV output and install systems.
- Geothermal Renewable Energy – consider ground source heat pumps for individual buildings, building clusters, and small networks.
- Energy Storage – consideration of electric battery and thermal energy storage systems

3. Renewable Energy Procurement - draft recommendations identify verifiable and meaningful sources for renewable energy and align with the newly enacted Building Emissions Reporting and Disclosure Ordinance (BERDO). Strategies include:

- Municipal Aggregation, Renewable Energy Certificates / Credits (RECs), Power Purchase Agreements (PPAs), and Virtual Power Purchase Agreements (VPPAs)

4. Reduce Embodied Carbon - draft recommendations

identify immediate, near, and long term strategies to reduce carbon emissions associated with building and infrastructure construction materials. While best practices and industry standards are in earlier stages of development recent projects are successfully employing strategies to reduce embodied carbon. Strategies include:

- Utilizing low carbon mass timber and hybrid structural systems
- Structural design optimization
- Low carbon products including “green” concrete, insulation, and facade products
- Conducting whole building Life Cycle Analysis

Development Proposals And Standards

Public agency issued development RFPs should set leadership practice standards and response expectations following these guidelines. Current projects should review both the draft ZNC Building Zoning Initiative recommendations and newly enacted BERDO 2.0 requirements. New projects should be planned and designed and operated to achieve zero net carbon performance. Future projects should adhere to and exceed the City’s most current resiliency and sustainability policies and standards at the time of initial project or design filing.

Green Building Design Guidelines

The United States Green Building Council’s (“USGBC”) Leadership in Environmental and Energy Design (“LEED”) rating systems provide a market recognized framework for evaluating the environmental performance of buildings and a comprehensive approach to reducing the adverse impacts of the built environment and promoting human health and wellbeing.

New projects should target LEED Platinum and LEED Zero certification and, at minimum, achieve LEED Gold Certification. Projects should be registered upon tentative designation and certified by the USGBC within one year of construction completion.

1. **Integrated Project Planning:** Projects should employ integrated approach to planning and design, including the use of preliminary and whole building energy modeling.
 - Achieve Integrated Project Planning credit.
 - Include a LEED Accredited Professional(s) with the appropriate specialty(s).
2. **Connectivity:** Promote and support non-personal vehicle means of travel including walking and bicy-

cling, public transit, and reduced personal vehicle travel. Strategies should include easily accessible, secure and enclosed bicycle storage space (see Boston Bicycle Parking Guidelines), shared parking, transit pass programs, and car and bike share programs. Other elements that promote connectivity include open space courtyards with landscaping and seating, desire-line footpaths, public viewing areas, and communal gardening spaces.

3. **Site Development:** Employ strategies to eliminate construction phase environmental impacts including off-site tracking of soils and construction debris. Site designs should include strategies to reduce heat island and storm water runoff impacts, and promote area natural habitats.
4. **Water Efficiency:** Minimize water use and reuse storm and wastewater. Strategies should include low flow plumbing fixtures; rainwater harvesting for gardens and building systems and ground water recharging; and drought resistant planting and non-potable water irrigation.
5. **Clean and Efficiency Energy:** Minimize energy use with a priority on passive building strategies. Buildings should target 60% saving and, at minimum, achieve a 40% saving modeled performance (below) the current Commonwealth of Massachusetts Stretch Energy Code. All building projects should:
 - Prioritize passive building strategies including building orientation and massing; high performance building envelopes that are airtight, well insulated, have appropriate window to wall ratios, and include high efficiency windows and doors; and natural ventilation and daylighting.
 - Utilize efficient all electric air and ground source heat pump systems for building thermal conditioning and hot water systems, include dedicated outside air systems with energy recovery ventilation, and high efficiency LED lighting fixtures and advanced lighting control systems and technologies.
6. **Energy Efficiency Incentives:** Fully utilize any available federal, state, and utility energy efficiency and renewable energy programs.
7. **Indoor Environmental Quality:** Provide high quality healthy indoor environments by utilizing strategies that include extended roof overhangs, proper ground surface drainage and non-paper gypsum board in moist areas; passive and active fresh air systems and active ventilation at moisture and combustion sources; building products and construction materials that are be free of VOC's, toxins, hazardous chemicals, pollutants and other contaminants;

entryway walk-off mats and smooth floors that reduce the presence of asthma triggers, allergens and respiratory irritants; and easily cleaned and maintained finishes.

8. **Materials Selection:** Include sustainably harvested and responsibly processed materials. Strategies should include products made with recycled and reclaimed materials; materials and products from responsibly harvested and rapidly renewable sources; and locally sourced products and materials (within 500 miles).

Innovation and Excellence

In the last decade the building industry has seen new practices and products dramatically improve the performance and sustainability of buildings and infrastructure. Industry innovators continue to drive the development and refinement of new practices and manufacturers are responding with new and better products and equipment.

The RFLMP and our private partners provide unique opportunities to foster and lead industry innovation. At the building scale project teams should consider new approaches, new products and systems, and lead in construction of the next generation of buildings. At the district scale, the City and our partners should investigate and assess new solutions and serve as a test bed for new practices, systems, and products. Specific strategies warranting additional consideration include:

Geothermal Renewable Energy Study

The growth in installation of new ground source heat pump system technology is demonstrating the feasibility for wider adoption. Working with our partners, consider assessing the feasibility for geothermal renewable energy system installation opportunities throughout the Park including:

- Individual Buildings
- Multi-building Projects
- Clusters and Small Area Networks
- Varying ownership models

Solar Renewable Energy Study

Across the City and State new solar photo-voltaic (PV) renewable energy installations are reducing carbon emissions while creating new local job and business opportunities. Local solar renewable energy systems can enhance building and electric grid resiliency while reducing owner and tenant energy costs.

Assess the feasibility for solar renewable energy system installation opportunities throughout the Park for:

- Individual Buildings
- Multi-building Projects
- Clusters and Small Area Networks
- Varying ownership models

Regulatory Tactics for Implementation

To implement the proposed development concept and typology, regulatory adjustments to the RLFMP's Chapter 91 license or DPA regulations will have to be made. This will unlock latent economic development potential for the RLFMP.

Regulatory and Policy Context

The RLFMP Master Plan Update serves as a Notice of Project Change under the Massachusetts Environmental Policy Act to the Final Marine Industrial Park Master Plan EOE #8161. The Secretary of Environmental Affairs issued a certificate for the Final Marine Industrial Park Master Plan on March 16, 2000. Pursuant to the Certificate, projects proposed outside of footprints shown on Figure 3-5 of the Final Master Plan that individually meet one or more MEPA filing thresholds must file a Notice of Project Change under MEPA. Also, pursuant to the Marine Industrial Park Master Chapter 91 License issued March 16, 2005 (No. 10233), Special Condition Number 1(d) any proposed structural alteration or change of use that is not authorized pursuant to the license shall require the filing of a Notice of Project Change to MEPA.

The Raymond L. Flynn Marine Park is the product of a series of actions by the legislature over a period of 125 years to support and expand industrial development in the Commonwealth. Originally authorized in the 1860's, the activities at the RLFMP today fosters industry and manufacturing and remain a vital part of the City's efforts to promote jobs, expand job sectors and its own economic health.

The regulatory framework affecting land use at the RLFMP is composed of both local and state level controls. At the local level the City of Boston has established zoning district boundaries and allowable land use designations



Parcel M remains unoccupied and in need of waterside infrastructure repairs.

for each district. The RLFMP is zoned in part as a Maritime Economy Reserve zone allowing primarily water-dependent industrial uses, and a general industrial zone allowing a variety of industrial, manufacturing and commercial uses. At the state level, the DEP waterways regulation program applies jurisdiction over nearly all of the RLFMP through Chapter 91 licenses as the majority of the park is located in filled and flowed tidelands subject to Chapter 91 jurisdiction. A significant section of the RLFMP falls within Chapter 91 jurisdiction with the exception of Parcels Q, Q1, T, U and a portion of Parcel A. The RLFMP consists of filled and flowed tidelands and lies mostly within the South Boston Designated Port Area. The relevant standing within the Waterways Program allows for primarily water-dependent industrial uses within the RLFMP with provisions for other industrial and commercial uses in existing and new structures.

The Massachusetts Office of Coastal Zone Management program also plays a major role in land use regulation at the RLFMP through the establishment of the Designated Port Area. Most of the RLFMP is located within the South Boston Designated Port Area.

The Chapter 91 Regulations allow for special procedures including expedited review and single licenses for a large and complex set of activities undertaken by a public agency. They also provide for the licensing of “marine industrial parks” that are designed as multi-use complexes that are predominantly used for water dependent industrial activities and are governed by comprehensive park plans prepared in accordance with the Massachusetts Environmental Policy Act. MEPA review of the RLFMP dates back to 1989 when the Secretary of the Executive Office of Environmental Affairs required the City of Boston to prepare a Master Plan for the RLFMP.

The RLFMP is planned and operates as a Marine Industrial Park pursuant to 310 CMR 9.02 with flexibility in use and programming as approved under MEPA and DEP.

1999 Boston Marine Industrial Park Master Plan

The BMIP Master Plan was approved with the issuance of the Secretary’s Certificate on March 16, 2000.

One of the central commitments of the BMIP Master Plan and designation of the BMIP as a Marine Industrial Park was maintaining a minimum of 67% of the area devoted to water dependent industrial uses and supporting DPA uses with the remaining uses accounting for 28% industrial and 5% commercial.

The steps to implement the Final BMIP Master Plan included an application for a Consolidated Written Determination and a Master Chapter 91 license for the entire park including a site plan, with existing and proposed building footprints and heights as well as proposed pier, wharves and roadways accompanied by a park-usage spreadsheet (Table 7) demonstrating compliance with the overall park-wide land use goals. The Master Chapter 91 license No. 10233 was issued in 2005. To date, projects have remained consistent with the 1999 Master Plan and Master Chapter 91 License with several minor revisions and modifications.

Projects that are consistent with the BMIP Master Plan and Master Chapter 91 License benefit from expedited approvals and no further environmental review. Projects must be consistent with proposed building footprints, uses and Table 7 park usage spreadsheet while maintaining a minimum of 67% of the area as water-dependent marine industrial.

2017 RLFMP Master Plan Update

The RLFMP Master Plan update (“DMPU”) proposes a development scenario that allows more industrial job sector growth in the RLFMP while also improving our ability to invest in marine industrial infrastructure and port growth opportunities. The anticipated build out is greater than planned in the 1999 Master Plan increasing from a Floor Area Ratio (“FAR”) of 2 to 4. While the increase in building massing is greater than the original master plan, the BPDA demonstrates that it will maintain a minimum of 67% of the area as water-dependent marine industrial. An updated Table 7 is provided to support this conclusion. The calculation of the compliance of use is consistent with the ground floor equivalency calculation spelled out in the Master Chapter 91 License Special Condition #7a. The DMPU also represents that certain parcels will remain exclusively reserved for marine industrial uses. These parcels include B, C-1, C-2, K, M, M-1 (MMT), V and V-1. While addi-

tional structures with ground floor supporting marine industrial uses are proposed on Parcel L, the Boston Ship Repair's shipyard, this parcel is anticipated to remain a functioning shipyard with opportunities for growth. New structures and uses proposed for this site will require a third party assessment to determine the shipyard can continue to function independently.

The DMPU submission details the BPDA's approach to meeting the objectives of Chapter 91 while increasing supportable uses, specifically general industrial by generating revenue to support the marine industrial nature and maritime/port infrastructure in the RLFMP. The 2017 draft suggested a few regulatory and policy approaches to increasing mixed industrial uses in the RLFMP while maintaining our support for the port economy.

Based upon feedback received during the public review process in 2017 and the input from the Technical Advisory committee in 2019, the BPDA suggests a more simplified and streamlined approach. We believe we can maintain at least 67% of the RLFMP as marine industrial use while supporting our proposed buildout of a Floor Area Ratio of 4. This approach maintains certain waterfront parcels as exclusively marine industrial while also allowing other sites, primarily landlocked, to be solely general industrial/commercial or to host ground floor marine

industrial uses and upper floor mixed industrial. The BPDA believes the increase in building volume and corresponding increase in non-water dependent uses necessitates the need for continued environmental review through DEP and MEPA beyond the approval of the FMPU. The lack of details and analysis on anticipated growth including environmental impacts and consistencies with the City's green building, resilience and climate change initiatives and also impacts on the marine industrial uses of the RLFMP requires independent review of future projects. The streamlined permitting allowed in the 1999 Master Plan does comport with the proposed development scenario for the RLFMP.

The BPDA is proposing a Chapter 91 Consolidated Written Determination track with continued MEPA environmental review as the buildout scenario and mix of uses are more complex than the 1999 Master Plan. The pace and scale of buildout in the RLFMP is hard to predict over the next 5-10 years and an increased FAR proposed in the last plan from 2 to 4 with a significant concentration of lab space is challenging to review and analyze at present. Since the Master Plan was last approved, the City has developed climate change and environmental policies and regulations that will guide and inform new development in the RLFMP through Article 80 and MEPA review. The policies and regulations adopted since 1999 include Article 37 Green Building Zoning, Climate Ready Boston, Boston's Climate



Buildings, such as North Coast Seafood, **integrate commercial and marine industrial uses into the same building.**

Action Plan and Coastal Resilience Solutions for South Boston, and the Coastal Flood Resilience Overlay District.. There is also pending new zoning Zero Net Carbon. In addition there are other planning and policy layers that apply to the RLFMP including South Boston Seaport Strategic Transit Plan and the South Boston Waterfront Sustainable Transportation Plan.

The process to authorize the vision of this Master Plan update is by a Notice of Project Change under the Massachusetts Environmental Policy Act to the Final Marine Industrial Park Master Plan EOE #8161. The BPDA will also request a Consolidated Written Determination under MGL Chapter 91. The CWD will provide the framework and guidance for individual Chapter 91 License Applications for redevelopment projects on our parcels. While there will be site specific parcel licensing the scope and guidance of License No. 10233 is expected to remain effective for existing structures and licensed infrastructure.

In December 2017, the Boston Planning & Development Agency (BPDA) submitted the DMPU to MEPA as a Notice of Project Change. The Secretary's Certificate on the Notice of Project Change and Master Plan Update was issued on January 19, 2018.

The Secretary's Certificate allowed development associated with Wharf 8/Pier 7 to proceed to permitting but required the other proposed changes within the RLFMP to undergo final MEPA review through submission of a FMPU. Prior to this filing, the Secretary required that a stakeholder process be conducted through the creation of an Advisory Committee co-chaired by CZM and DEP and composed of various stakeholders to evaluate changes proposed in the DMPU. This public process was to be conducted in coordination with the City of Boston. Upon conclusions of this stakeholder process, the BPDA would submit a FMPU to MEPA for review.

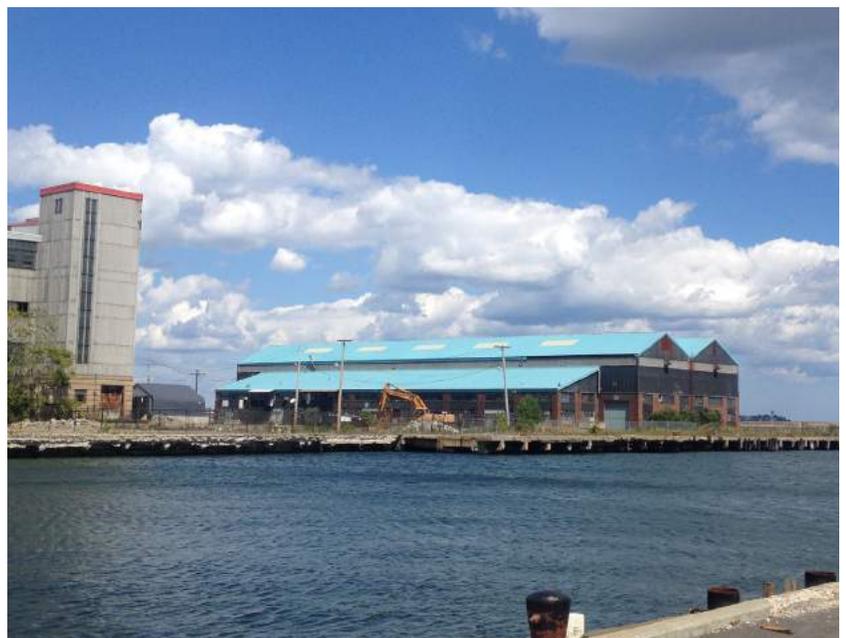
State permitting, including a new or amended Master c. 91 License, would follow, as necessary.

Implementation of the RLFMP Master Plan will occur on the local and state levels through land dispositions and leases, land use regulation, project and environmental review and capital improvement programming.

Consistent with the 1999 Master Plan, the BPDA will continue to coordinate with DEP, CZM and MEPA and other stakeholders including Massport to authorize the planned development and infrastructure investments in the RLFMP.

Distinct from the past plan and Master Chapter 91 license, new projects within the RLFMP will require individual environmental review through MEPA and Article 80 of the Boston Zoning Code and also require individual Chapter 91 Licensing.

The BPDA includes in this FMPU an application for a Consolidated Written Determination pursuant to Chapter 91 and a request for Special Review Procedures pursuant to the Massachusetts Environmental Policy Act and Section 11.09 of the MEPA regulations.



Increase in building volume and corresponding increase in non-water dependent uses necessitates the need for continued environmental review.

Chapter 91 and Consolidated Written Determination

If the project includes a set of activities, including without limitation those to which 310 CMR 9.11(1)(b) applies, which cannot reasonably be incorporated into a single license, the Department may upon request of the applicant issue a consolidated written determination which allows for multiple licenses to be issued independently for phases of said project, provided the Department finds that the licenses can be sequenced or conditioned in a manner which ensures that overall public benefits will exceed public detriments as each portion of the project is completed. Notwithstanding 310 CMR 9.14(3), licenses may be issued pursuant to a consolidated written determination issued under this provision for up to five years, with opportunity for extensions as deemed appropriate by the Department.

Since the project will be built in phases over numerous years, the CWD will enable DEP to regulate the project in its entirety and ensure that project impacts are addressed in each phase/license. Individual licenses will be issued upon request of the BPDA when projects are ready for construction in accordance with procedures detailed in the CWD special conditions. Individual license requests shall include plans prepared in accordance with 310 CMR 9.11 (3). License plans must remain in conformance with the CWD provided that:

- Proposed projects are consistent with the approved RLFMP Master Plan Update
- Meet all of the applicable CWD conditions
- Conform to Table 7 in buildout volume and use
- Conforms to the building and site layout shown on project site plan submitted with CWD
- Proposes no new uses other than those identified in Table 7
- Consistent with current DEP Waterways Program Sea-level rise policies
- Does not trigger further MEPA review other than SRP process (such as a Notice of Project Change)
- Provide supplemental environmental analysis with SRP Commencement Notifications
- Conforms to Logan Air Space mapping that promotes critical airspace around Boston Logan International Airport to protect the

- flight corridors in and out of the airport.
- A third party assessment to determine the shipyard can continue to function independently for non-water dependent uses and structures proposed on Parcels L and L-1.

MEPA Special Review Procedure Criteria

MEPA review in the past has been based upon the marine industrial park status of the RLFMP. Due to the volume of proposed non-water dependent uses further review is necessary.

BPDA is requesting projects within the RLFMP seek individual Chapter 91 licenses and be reviewed by MEPA through Special Review Procedures (“SRP”) pursuant to 301 CMR 11.09. The BPDA will set SRP criteria based upon present potential cumulative environment impacts, analysis of alternatives and appropriate mitigation measures. The SRP and Commencement Notification criteria will focus on the MEPA thresholds triggered by the RLFMP build-out projections including, transportation and parking, wetlands, specifically Land Subject to Coastal Storm Flowage, and greenhouse gas emissions.

Transportation

The proponent will have to produce a detailed transportation analysis pursuant to Article 80 and identify consistencies with the RLFMP Master Plan Transportation analysis, the South Boston Seaport Strategic Transit Plan and the South Boston Waterfront Sustainable Transportation Plan. The filing will also be consistent with MassDOT Transportation Assessment Guidelines

Projects will be reviewed by a proposed Transportation Advisory Committee comprised of BPDA Transportation Planners, Boston Transportation Department, MassDOT, MBTA, Massport, a representative of the RLFMP Business Park Association and the Seaport Transportation Management Association. The Committee will provide feedback on a project’s transportation analysis and impacts and monitor the implementation of transit and roadway infrastructure investments identified in the RLFMP Transportation Analysis that includes, roadways, parking, active transportation, transit

and transportation demand management. The table of identified transportation mitigation projects is included in the “Operational Impacts of New Development” section above.

Wetlands

The proponent will have to be compliant with the City of Boston Wetlands Ordinance and Regulations and the Coastal Flood Resilience Overlay District (ARTICLE 25A).

If Land Under The Ocean in Designated Port Areas is found to be significant to the protection of Marine Fisheries, Storm Damage Prevention Or Flood Control, 310 CMR 10.26(3) and (4) Shall Apply:

(3) Projects shall be designed and constructed, using best practical measures, so as to minimize adverse effects on marine fisheries caused by changes in: (a) water circulation; (b) water quality, including, but not limited to, other than natural fluctuations in the level of dissolved oxygen, temperature or turbidity, or the addition of pollutants.

(4) Projects shall be designed and constructed, using the best practical measures, so as to minimize, adverse effects on storm damage prevention or flood control caused by changes in such land's ability to provide support for adjacent coastal banks or adjacent coastal engineering structures

Land Subject to Coastal Storm Flowage (LSCSF): LSCSF is defined at 310 CMR 10.04 as “land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater.” The Federal Emergency Management Agency defines the 100-year floodplain, the geographic extent of which is used to delineate LSCSF. At the Project Site, the FEMA Flood Zone AE (EL. 10-12 NAVD88) defines the landward extent of LSCSF and encompasses the entire Project Site.

There are currently no performance standards that apply to projects within LSCSF. Notwithstanding, project designs will ensure that no adverse effects occur relative to the WPA public interests of storm damage prevention or flood control. Projects will comply with applicable federal, state, and local code requirements to ensure that the proposed coastal engineering structures are appropriately constructed.

Greenhouse Gas Emissions

Projects will comply with Article 37 of the Boston Zoning Code including the submission of a Carbon Neutral Building Assessment, Climate Resiliency Checklist and Sea Level Rise - Flood Hazard Area mapping tool.

Proponent shall include a Greenhouse Gas Emissions analysis based on the MEPA interim Greenhouse Gas Policy and Protocol and future updates.

Project should also comply with BPDA Building and Assets Resilient & Sustainable Guidelines.

Projects on BPDA assets should further the City's Green House Gas reduction objectives by meeting the highest reasonable and achievable Zero Net Carbon (“ZNC”) level. These levels are outlined below:

- ZNC Onsite - Energy requirements are met by onsite renewables.
- ZNC Offsite - Energy requirements are provided by offsite renewables.
- ZNC Ready - No onsite fossil fuel combustion.
- ZNC Convertible - Initially requires some onsite fossil fuels but is built so that it may be easily converted to electric or other fossil fuel free systems in the near future.

All projects proposed for the RLFMP that include any conditioned spaces (heating and cooling) as part of project design should consider the strategies below for efficient electrification and TEDI reduction, and provide documentation and modeling as part of the project filing to demonstrate the emissions reductions that would result from these strategies as compared to a Massachusetts Building Code compliant Base Case. If the strategy is not pursued, the reasons for dismissing this strategy should be explained, including analysis of cost effectiveness.

Efficient Electrification

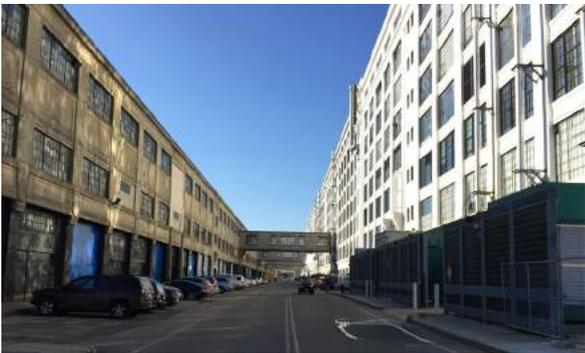
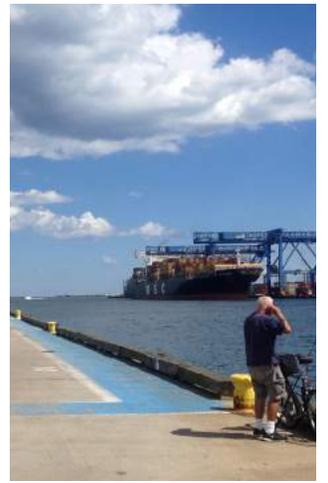
Several strategies exist to efficiently electrify space heating, including:

- Air-to-air heat pumps;
- Air-to-air variable refrigerate flow (VRF) heat pumps; and
- Air-to-water heat pumps – when using this strategy, connected hydronic thermal distribution systems need to be compatible with maximum temperature heat pump output (usually about 120F).

It is feasible to satisfy 100% of space heating with the above approaches for most building uses (office, retail, residential, etc). In highly ventilated spaces, such as a laboratory, a hybrid of gas and electric may be more suitable. One hybrid approach is: an air-to-water primary heating system (sized at 20% peak heating capacity) backed up with gas heating (sized at 100% peak heating), integrated to a central thermal distribution system.

Reducing Heating Demand with Envelope

For all building types, including laboratory and office spaces, quality envelope not only improves energy efficiency but can make electrification of space heating simpler, smaller, and less costly. For example, an envelope with high-performing windows and very low air infiltration can reduce an office building's thermal energy demand intensity ("TEDI") by over 90%, resulting in a reduction in heating system size, complexity, and cost. Office buildings can achieve a TEDI of less than 2 kBtu/sf-yr (compared to about 18 kBtu/sf-yr when built to Code). Laboratory buildings, even counting high ventilation loads, can achieve a 70% TEDI reduction. Accordingly, to help advance electrification, building envelope designs should strive to achieve TEDI reductions in this order of magnitude.





**boston planning &
development agency**



Raymond L. Flynn Marine Park Parcel Analysis



City of Boston



Client

City of Boston
Economic Development and Industrial Corporation d/b/a
Boston Planning and Development Agency

Consultants

Utile
Nelson Nygaard
Durand & Anastas
Ninigret Partners
HDR
Byrne & McKinney
Noble, Wickersham & Heart
Stantec

February 2022

Table of Contents

1. RLFMP Parcel Analysis 78

2. Parcel Conditions: Status and Future Potential 80

Parcel A and A1	80	Parcel N	102
Parcel B	81	Parcel O	103
Parcel C1 and C2	82	Parcel P	104
Parcel D	83	Parcel Q	105
Parcel F	84	Parcel Q1	106
Parcel F1	86	Parcel R	108
Parcel G, G1 and G2	87	Parcel S1 and S2	110
Parcel H	88	Parcel T and T1	112
Parcel I	89	Parcel U	114
Parcel J	92	Parcel V	115
Parcel K	93	Parcel V1	116
Parcel L	94	Parcel W	117
Parcel L1	96	Wharf 8/Pier7	118
Parcel L2	97	Parcel W1	119
Parcel M	98	Parcel X	120
Parcel M1	99	Parcel Y	121
Parcel M2a and M2b	101	Parcel Z	122

RLFMP Parcel Analysis

The Raymond L. Flynn Marine Park is the Boston Planning & Development Agency's primary concentration of real estate owned and managed by the BPDA. The Economic Development Industrial Corporation, a separate organizational structure, operated under the auspices of the BPDA, is assigned to manage the property and operations of the industrial park.

Technically, the majority of the park is one large parcel; however, for the sake of real estate development it is considered a series of development

sites or parcels. While many of the parcels are both owned and managed by the EDIC, some of the parcels hold long term leases and are managed by a separate organization, such as Jamestown Properties management of the Innovation and Design Building, of which they lease the land from the EDIC/BPDA. Jamestown, has other tenants, such as Autodesk, then sub-lease space.

This document serves as an detailed inventory of the parcels in the RLFMP, including their

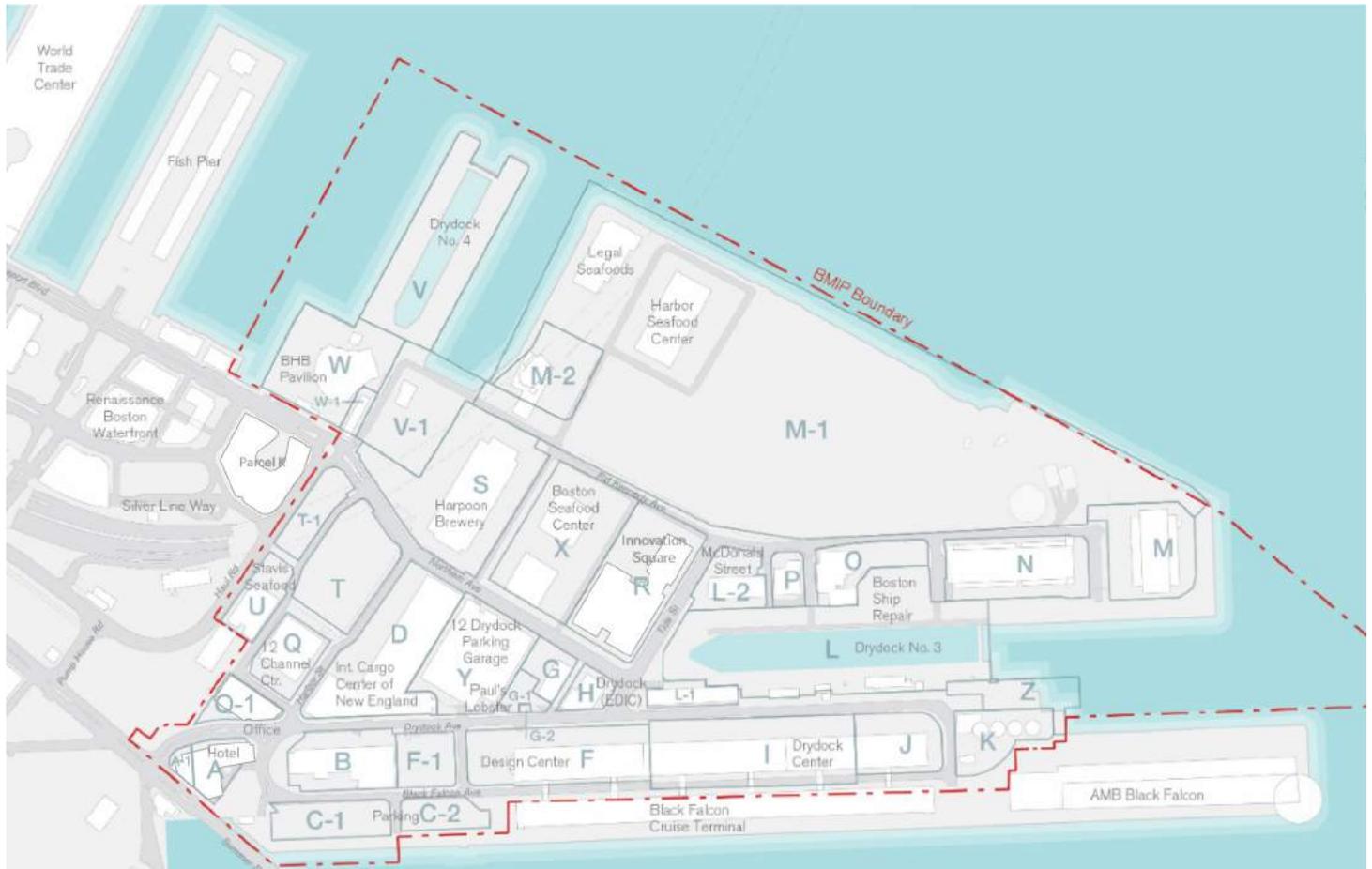
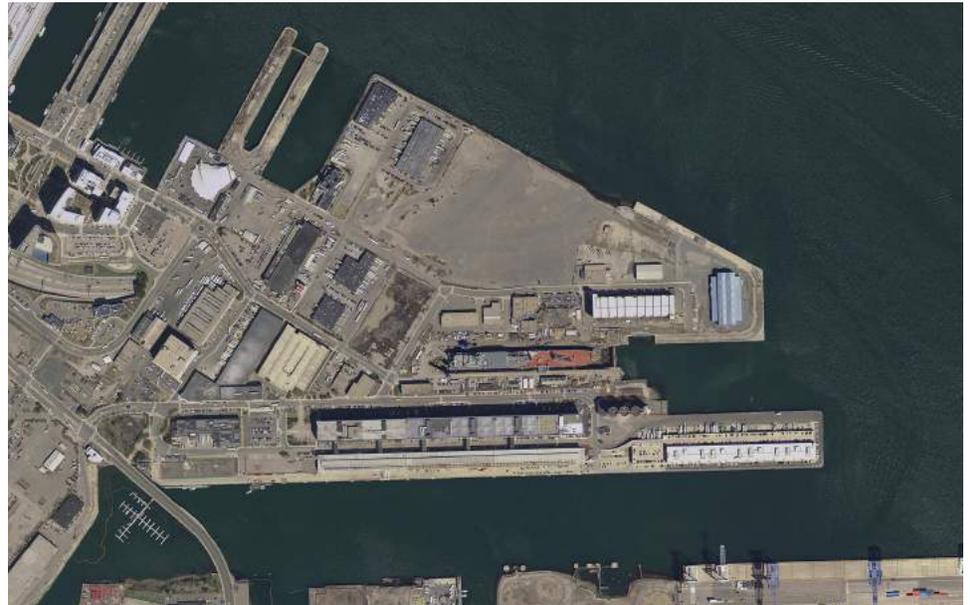
Existing Condition of the RLFMP

The photos below provide a broad cross section of the existing conditions at the RLFMP. While there is an active industrial sector, there is also a more varied tenant mix in recent years that has brought R&D and tech firms to the park. The marine infrastructure is in need of major upgrades, yet there is still an active ship repair facility. The mix of old and new industrial uses characterize the RLFMP.



- Size (parcel and building),
- Use,
- Active or vacant parcels,
- Designation
- Future development potential
- Tenants, and
- Terms of the lease.

The document will serve as a primer for parcel reference, current status of the parcel and what, if any, development future might be identified. It should be updated as the politics and development movement in the RLFMP will change over time. The ever changing nature of the RLFMP is cause for a regular reference to this parcel inventory. It serves as a snapshot in time.

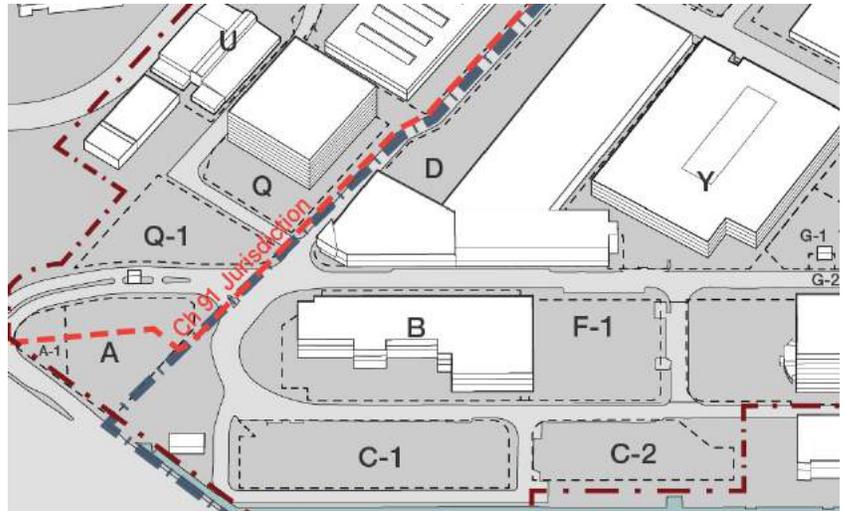


Parcel Conditions: Status and Future Potential

Parcel A and A1 (670 Summer Street)

Site of a 400+ room hotel. The development is located in the Waterfront Commercial Zone and outside the DPA and Chapter 91 restrictions, and therefore can have greater flexibility in use.

Parcel Size	50,933 sf
Building Size	320,000 sf (411 rooms and 3,500 sf retail)
Parcel Status	Active
Current use	Waterfront Commercial
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	Parcel A Development Lessee, LLC; Subtenant: Hampton Inn and Homewood Suites by Hilton
Lease status	Current Term through 2116
Future development potential	N/A

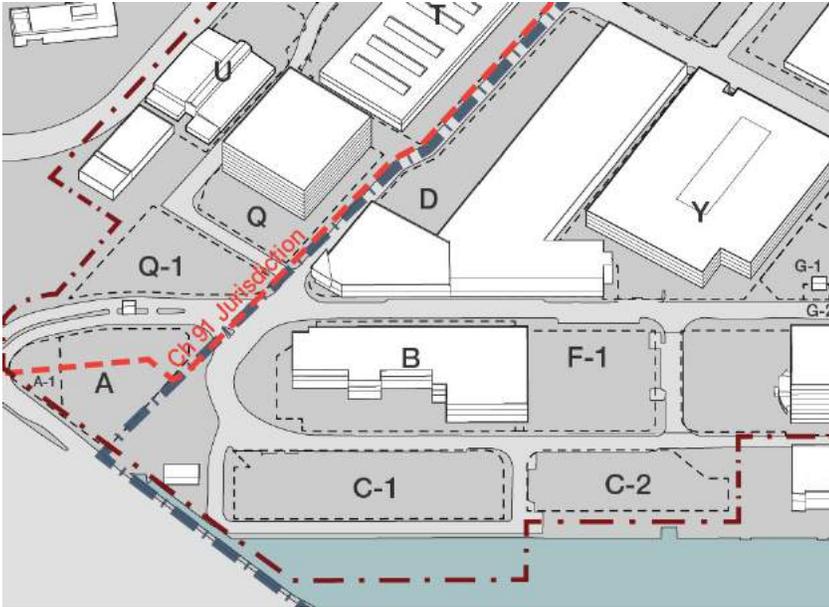


Short, medium and long term projects

- Construction completed by Harbinger Development for hotel and retail use in early 2021.

Other Considerations

- Parking for 75 vehicles is located in a second-floor garage, accessed from the hotel courtyard, off Terminal Street.
- A previously largely unused open space was absorbed into the Parcel A development.



Parcel B - North Coast Seafood (5 Drydock Ave)

North Coast Seafood is a seafood distribution and processing company. The building was relatively recently constructed and houses North Coast Seafood processing and distribution facility, as well as the Drydock Cafe, among other commercial tenants.

Parcel Size	95,824 sf
Building Size	54,230 sf
Parcel Status	Active
Current use	Primarily Marine Industrial (86%) with Supporting Commercial Uses
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	5-11 Drydock LLC; Primary Tenant: North Coast Seafood
Lease status	Current Term through 2075 provided Tenant timely exercises its remaining Option Terms
Future development potential	N/A

Short, medium and long term projects

- The building is relatively new construction with no short or medium term expansion plans.

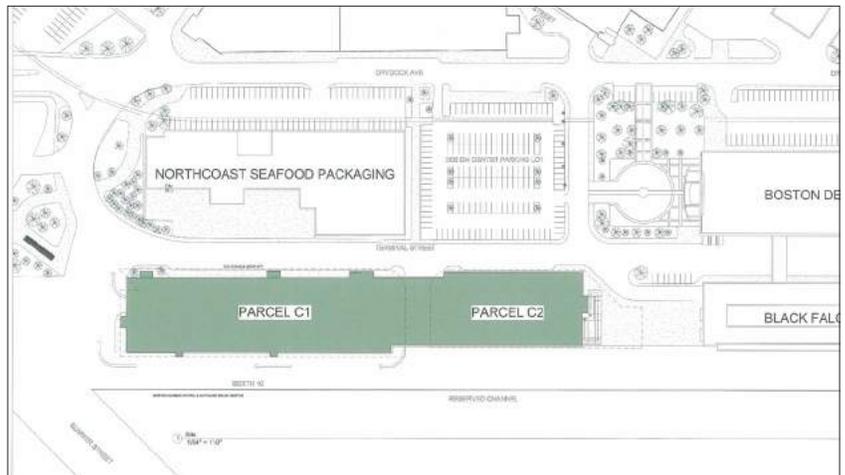
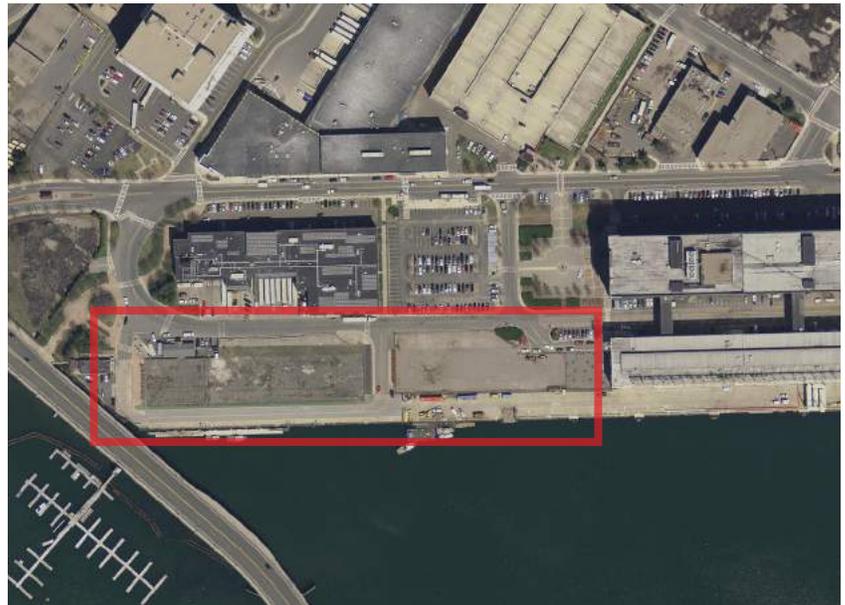
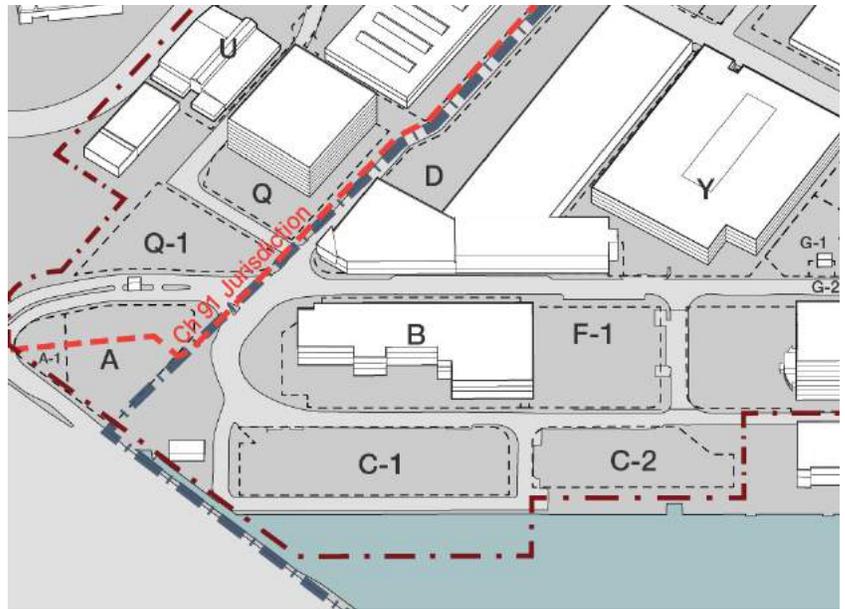
Other Considerations

- The primarily Marine Industrial designation for this parcel is proposed to remain.

Parcel C1 and C2 (1 Terminal St and 5 Terminal St)

The parking lots currently provide 252 spaces - 176 in C-1 and 76 in C-2 - of surface parking for the EDIC and cruise terminal operations. C-1 serves as parking for the cruise terminal, while C-2 is typically used by BTD and BPDA office vehicles. Docking facilities for the BPD Harbor Patrol are located on the watersheet adjacent to C-1 and accessed thereby.

Parcel Size	111,150 sf
Building Size	N/A
Parcel Status	Active
Current use	Marine Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	N/A
Tenant(s)	EDIC
Lease status	N/A
Future development potential	N/A

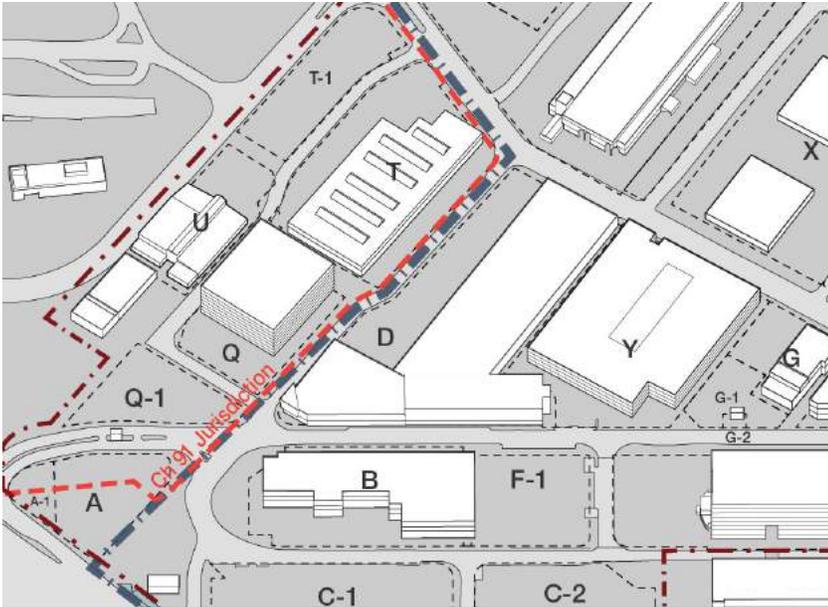


Short, medium and long term projects

- Possible site of a new car parking garage or municipal facilities such as a new fire station, as needed.

Other Considerations

- Marine industrial use opportunities.



Parcel D (1 Harbor Street)

In 2019, ICCNE I LLC assigned the lease for this property to Vertex Pharmaceuticals. Vertex is a global biotechnology company that invests in scientific innovation to create transformative medicines for people with serious diseases. Vertex has multiple approved medicines that treat the underlying cause of cystic fibrosis, and has a robust pipeline of investigational medicines for other serious diseases including pain, APOL1-mediated kidney diseases, sickle cell disease, and type 1 diabetes mellitus.

Parcel Size	205,519 sf
Building Size	212,500 sf
Parcel Status	Active
Current use	Marine Industrial (74%), General Industrial (25%), Commercial (1%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	Vertex Pharmaceuticals, Incorporated; Multiple sub-tenants
Lease status	Current Term through 2048 with three 10-year extension options
Future development potential	N/A

Short, medium and long term projects

- The building is relatively new construction with no short or medium term expansion plans.

Other Considerations

- None

Parcel F - Design Center Building (1 Design Center Place)

The master lease for the Design Center building was acquired by Jamestown Properties in 2014. In 2020, Related Beal entered into a partner ownership agreement with Jamestown for the property. Multiple PNFs (project notification forms) have been filed since 2014 to make upgrades to the existing building, as well as, request allowances for additional commercial uses in the building to serve the building tenants.

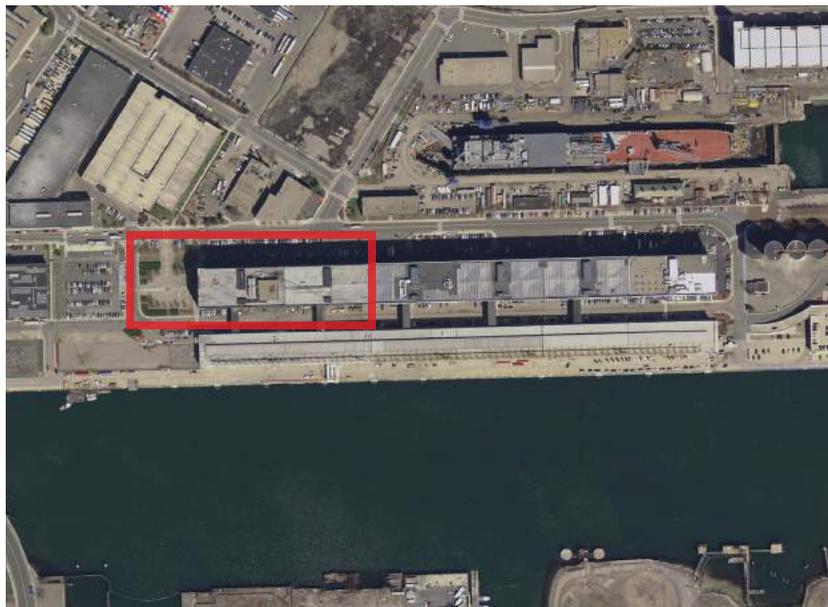
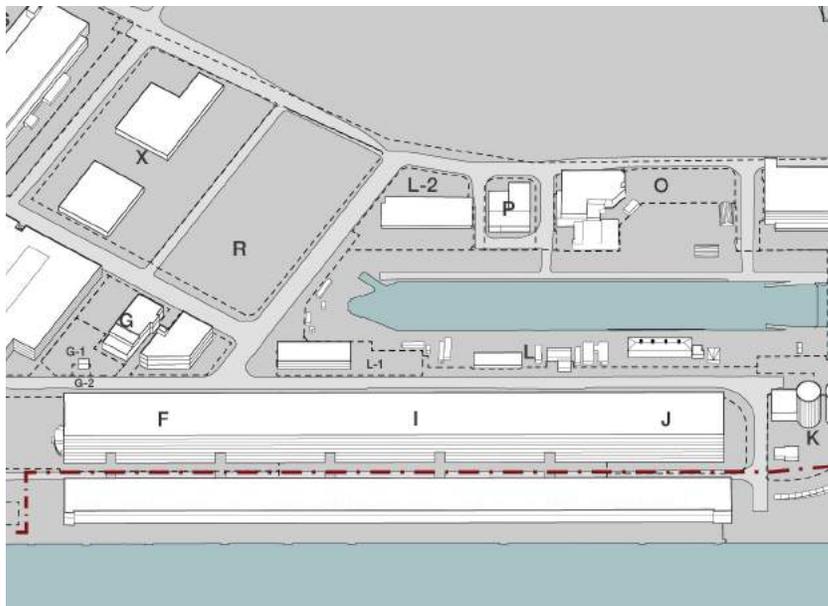
The tenants of the building (now considered part of the renamed Innovation & Design Building) remain a cluster of design centered business, many of them focused on furniture and interior design wholesale, showrooms and distribution. The Design Center has been a cluster of design focused businesses in the RLFMP since the 1980's, originally moving there because of cheap rent and the ability to have a cluster economy. This clustering was beneficial to businesses due to the reciprocal effect of a one-stop shop.

The non-traditional industrial uses in this building are representative of the shifting nature of businesses in the RLFMP, and in particular, in the Design Center. The higher person per square foot causes a demand for parking and the type of businesses that can afford the higher rents.

Additional commercial uses such as container shops and restaurants have been installed. Recent efforts have been made to pivot empty general industrial square footage into light industrial R&D while retaining existing design oriented tenants.

Short, medium and long term projects

- Major interior renovations, such as new windows, have been made since Jamestown Properties acquired the master lease.
- Reorientation of existing vacant space for the purposes of light industrial R&D.



Redesigned parking lots and streetscape improvements including small open spaces will improve the “front door” of the Innovation & Design Building.



Due to the low allowable percentage of commercial uses and lack of food service, food trucks have become a fixture at the RLFMP, serving the ever growing workforce in the Innovation & Design Building.

Parcel Size	164,007 sf
Building Size	552,026 sf
Parcel Status	Active
Current use	General Industrial (75%) Commercial (25%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	Renovations for new light manufacturing tenants
Tenant(s)	Jamestown 1 Design Place, L.P.; Multiple sub-tenants
Lease status	Current Term through 2081
Future development potential	Continued renovation

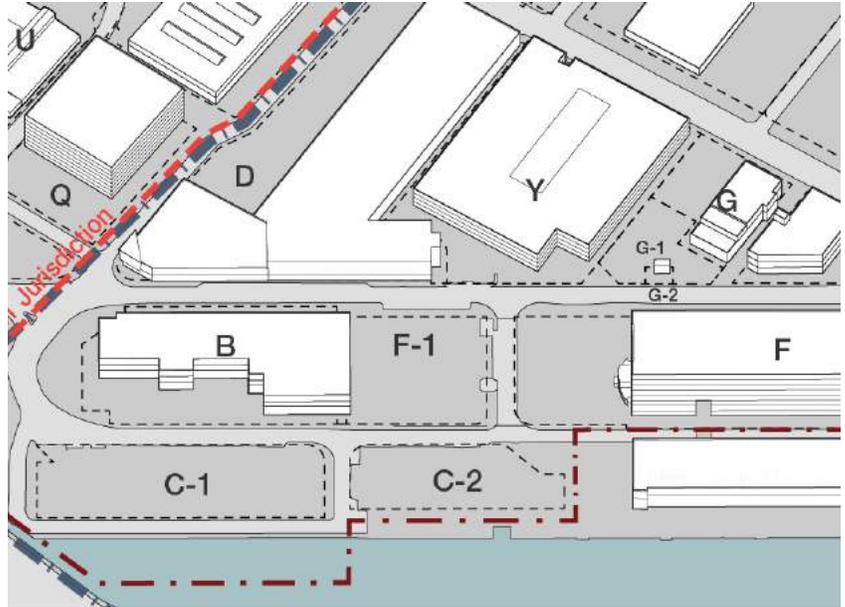
Other Considerations

- Additional details about the improvements to the building, tenants and lease status can be found in the appendices of the Tenant Interviews and Lease Status sections.
- The acquisition of both the Design Center and the Bronstein Building (collectively known as the Innovation & Design Building) means that discussions about improvements should be seen as a single lease holder rather than two parcels for the sake of future discussion, logistics, tenants and improvements.

Parcel F-1 (11 Drydock Avenue)

F-1 is currently used as a surface parking lot for Jamestown and Related Beal’s sub-tenants. It has 177 spaces.

Parcel Size	50,469 sf
Building Size	N/A
Parcel Status	Active
Current use	Surface Parking Lot, General Industrial (75%), Commercial (25%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	N/A
Tenant(s)	Jamestown Properties and Related Beal
Lease status	Current Term through 2081
Future development potential	Development ready site

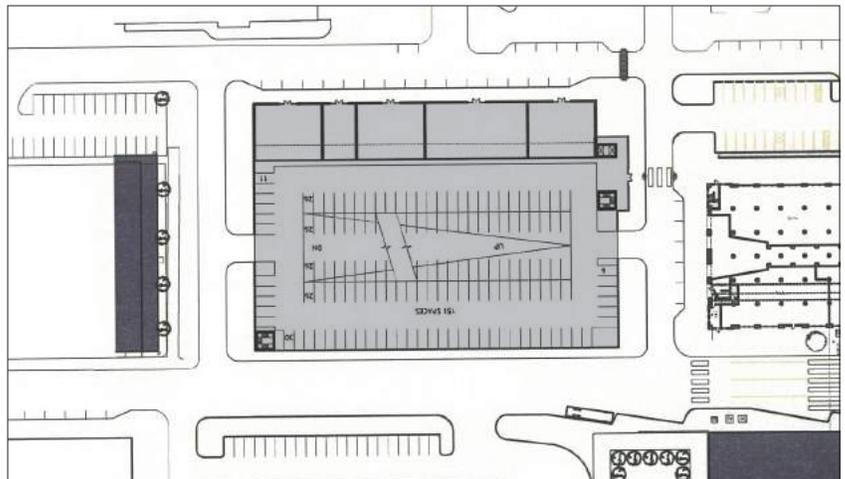


Short, medium and long term projects

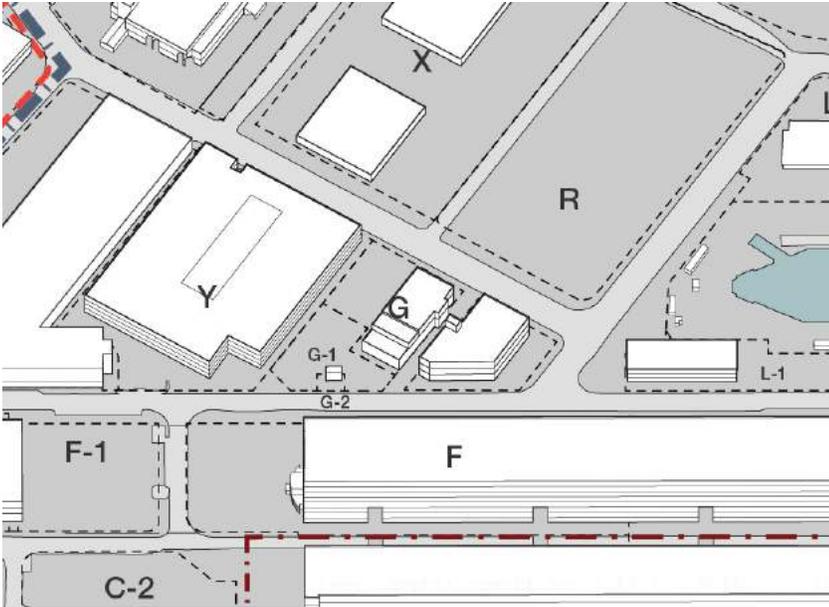
- No short term plans have been discussed for this parking lot.
- Jamestown provided longer-term plans for an additional parking deck for 1,000 cars at this site, but the idea was rejected because of Chapter 91 issues and traffic impact. In addition, there were no allowable spaces in the parking bank to devote to this garage.

Other Considerations

- The existing parking lot could be developed with the potential for mixed-industrial use opportunities.
- Adjacent tenant, North Coast Seafood, has an option to expand their leased premises to Parcel F-1 subject to conditions laid out in their lease agreement.



Conceptual parking structure would conflict with proposed C1 and C2 garages.

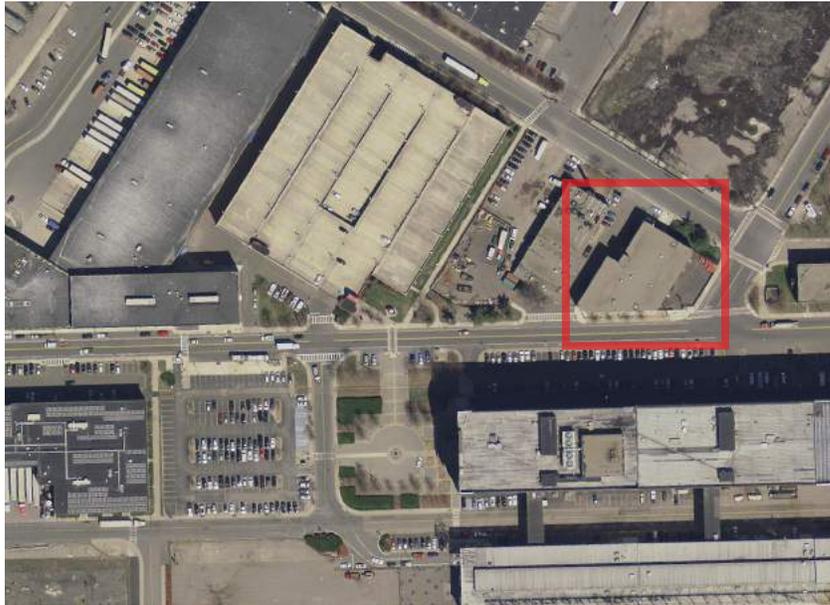
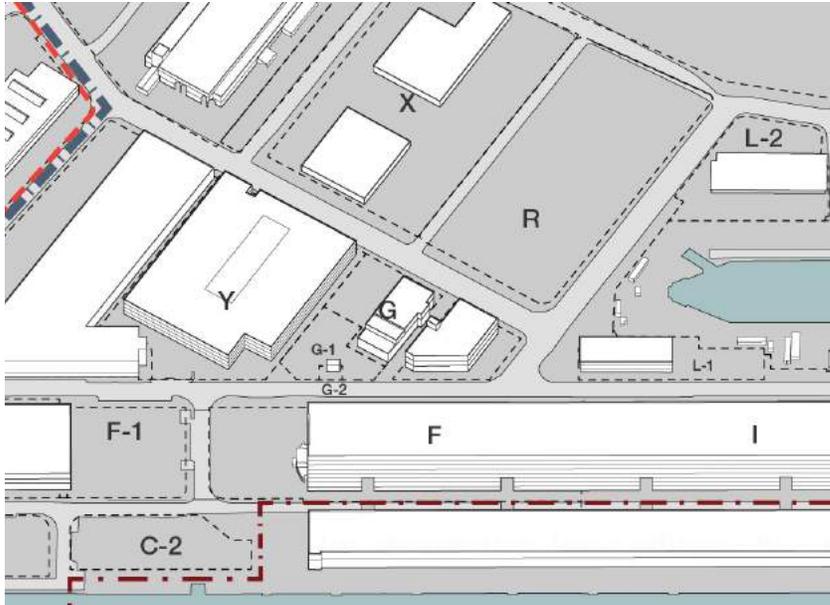


Parcel G, G-1, G-2 (339 Northern Avenue)
 These parcels, which have boundaries on both Northern Ave and Drydock Ave are currently occupied by a surface parking lot and a Bell Atlantic switch station. The parcels formerly held lobster seafood businesses. These parcels are planned to be combined with Parcel H to support a larger mixed-industrial development site.

Parcel Size (G,G-1,G-2combined)	53,009 sf
Building Size	24,898 sf
Parcel Status	Active
Current use	Marine Industrial
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	N/A
Tenant(s)	EDIC
Lease status	N/A
Future development potential	Development ready site

Short, medium and long term projects
 · These parcels can be combined with Parcel H for a mixed-industrial use development.

Other Considerations
 · The BPDA released a Request for Proposals in April 2021 to give qualified developers an opportunity to submit proposals for the redevelopment and ground lease of Parcels G, H and H1. Three proposals were received in July 2021 and are currently under review.



Parcel H (22 Drydock Avenue)

The Primary tenant in 22 Drydock is the EDIC, the agency that manages and operates the park. There are additional sub-tenants in the building.

Parcel Size	26,809 sf
Building Size	43,419 sf
Parcel Status	Active
Current use	General Industrial
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	N/A
Tenant(s)	EDIC; Multiple sub-tenants
Lease status	N/A
Future development potential	Development ready site

Short, medium and long term projects

- This parcel can be combined with Parcel G, G-1, G-2 for a mixed-industrial use development.

Other Considerations

- The BPDA released a Request for Proposals in April 2021 to give qualified developers an opportunity to submit proposals for the redevelopment and ground lease of Parcels G, H and H1. Three proposals were received in July 2021 and are currently under review.

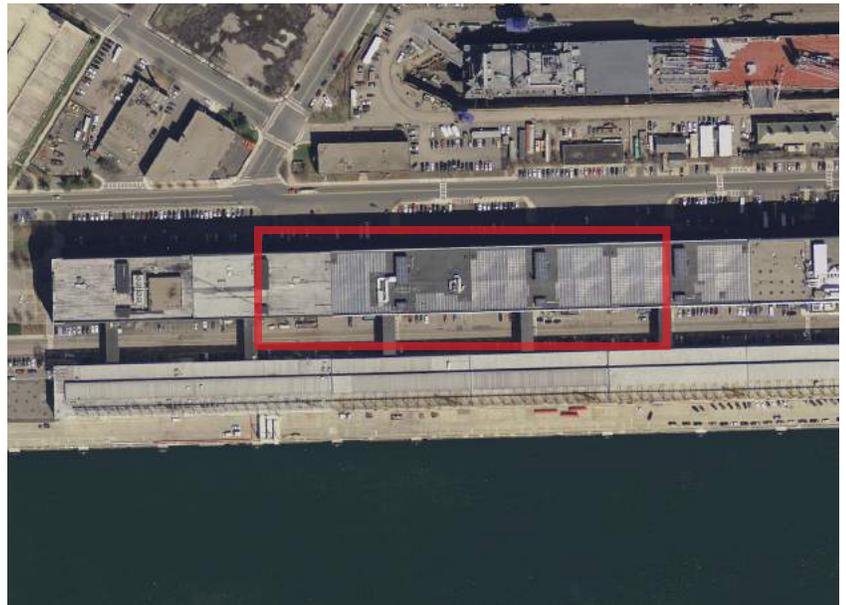
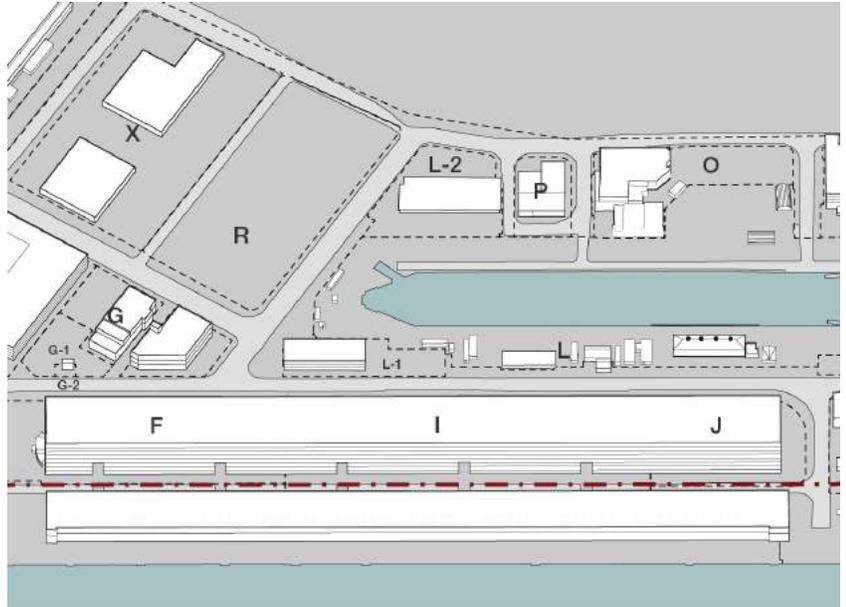
Parcel I - Innovation and Design Building (21-23-25 Drydock Avenue)

Formerly known as the Bronstein Building, Jamestown Properties acquired this building and the adjacent Design Center building. Related Beal entered into a partnership with Jamestown for both properties in 2020. These two buildings combined have been re-branded, the Innovation & Design Building. While there are still some traditional industrial tenants, MassChallenge, Autodesk, and Reebok, are considered R&D and therefore permitted under supporting industrial zoning.

Parcel Size	225,374 sf
Building Size	825,552 sf
Parcel Status	Active
Current use	Marine Industrial (10%), General Industrial (65%), Commercial (25%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	Renovations for new light manufacturing tenants
Tenant(s)	IDB 21-25 Drydock Limited Partnership; Multiple sub-tenants
Lease status	Current Term through 2081
Future development potential	Continued renovation

Short, medium and long term projects

- Major interior renovations, such as new windows, have been made since Jamestown Properties acquired the master lease.
- Reorientation of existing vacant space for the purposes of light industrial R&D.



Other Considerations

· The acquisition of both the Design Center and the Bronstein Building (collectively known as the Innovation & Design Building) means that discussions about improvements should be seen as a single lease holder rather than two parcels for the sake of future discussion, logistics, tenants and improvements.



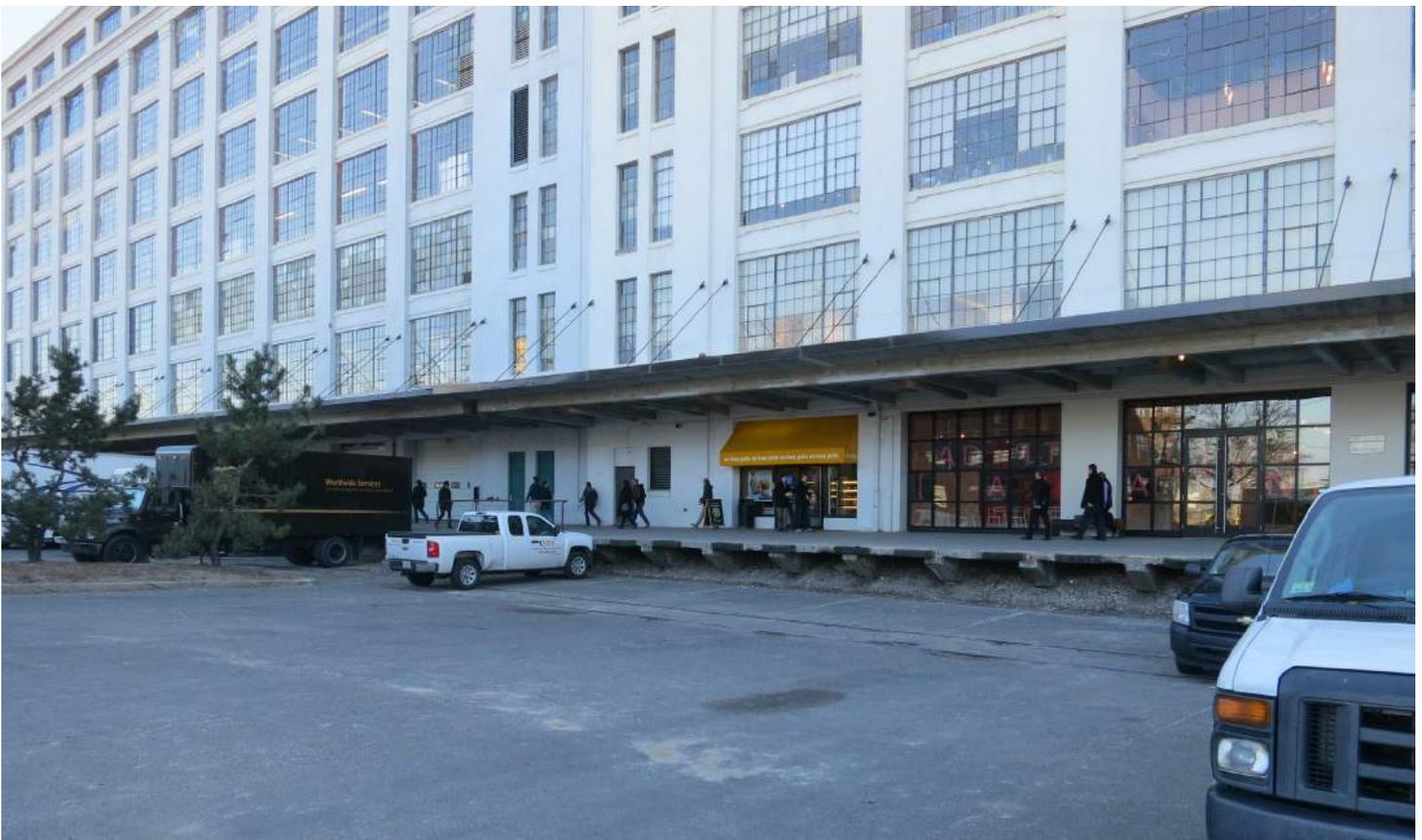
Public space improvements including a new plaza and redesigned parking lots along Drydock Ave, are part of the on-going improvements to the IDB.

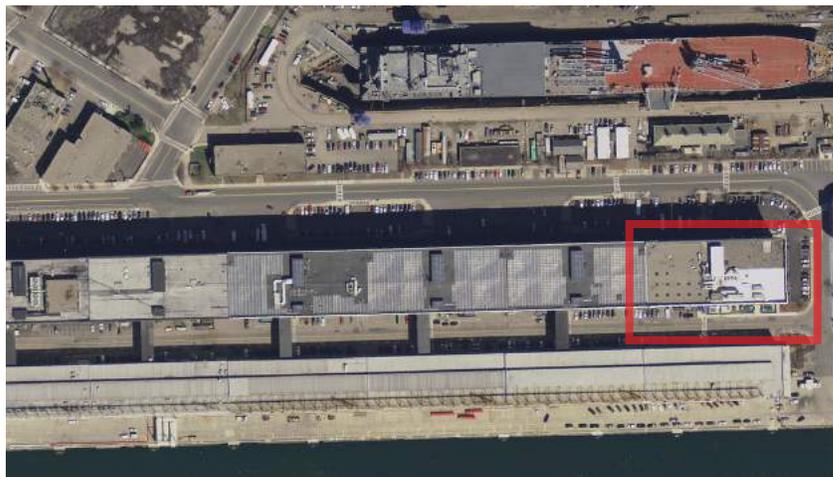
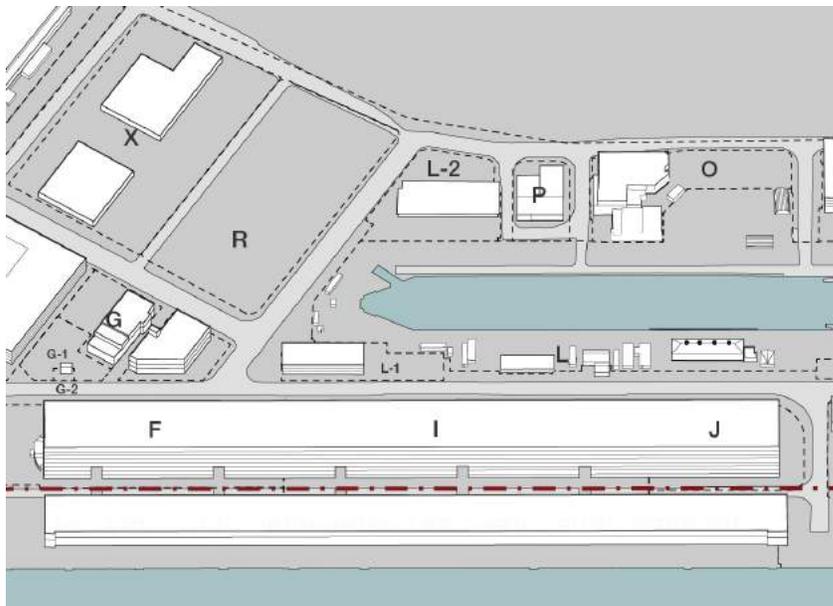


Temporary shipping container retail (bottom) lines the loading docks along the Innovation & Design Building providing food service and retail for employees.



Drydock Ave is both a major truck route, serving business along the length of Drydock Ave and on to 88 Black Falcon Ave, but it is also a significant pedestrian crossing for people walking from the Silver Line stop to the IDB and 27 Drydock Ave. Pedestrian safety improvements are needed to coordinate these conflicting modes.





Black Falcon Ave provides rear loading access for 27 Drydock, the IDB and the Massport Cruise Terminal.

Parcel J (27 Drydock Ave)

The 27 Drydock building is managed by Beacon Capital who hold leases with multiple sub-tenants in the building. The building is now close to 100% occupied and the majority of the tenants are life-science companies, including Ginkgo Bioworks and Vertex.

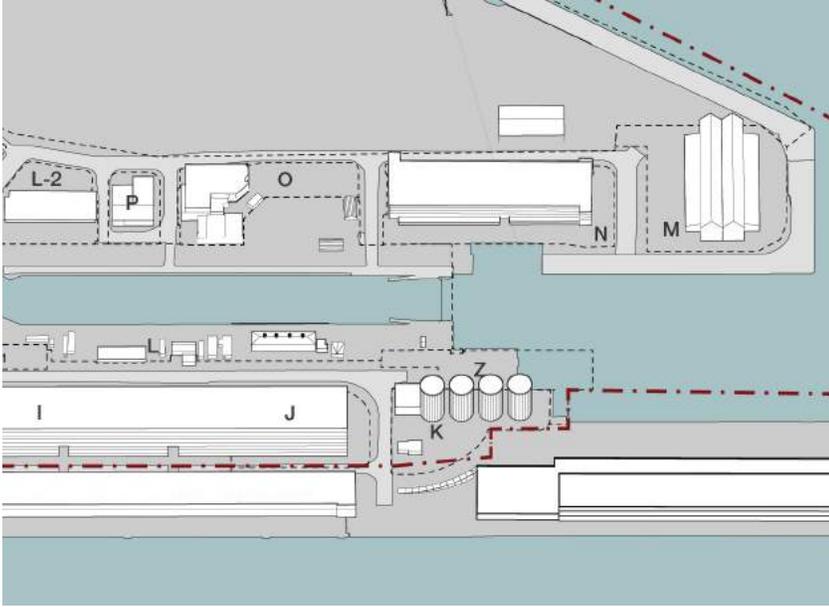
Parcel Size	81,043 sf
Building Size	275,184 sf
Parcel Status	Active
Current use	Marine Industrial (10%), General Industrial (90%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	BCP-CG 27 Property, LLC; Multiple sub-tenants
Lease status	Current Term through 2090
Future development potential	Interior renovations possible

Short, medium and long term projects

- Prospective tenants are looking for 2-5K sf spaces for short term trials.

Other Considerations

- None.



Parcel K (36 Drydock Ave)

The site is occupied by Coastal Cement primarily serving as a cement manufacturing and distribution company. Coastal Cement is one of only three true “water dependent” uses in the RLFMP, the others being the Boston Ship Repair facility and Yankee Lobster. No future development plans have been discussed for this site.

Parcel Size	76,820 sf
Building Size	7,454 sf
Parcel Status	Active
Current use	Marine Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	Coastal Cement Corporation
Lease status	Current Term through 2050
Future development potential	N/A

Short, medium and long term projects

- No plans are proposed for Parcel K.

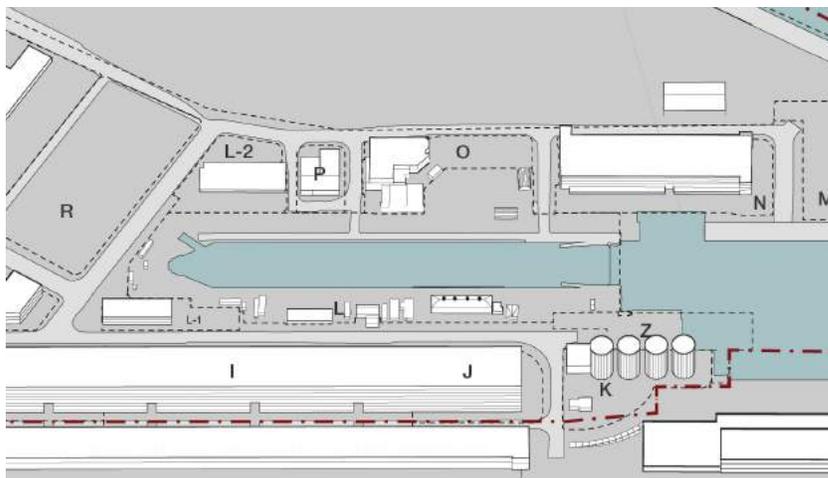
Other Considerations

- The current alignment of Track 61 runs adjacent to Parcel K. This should be preserved.

Parcel L (Drydock #3)

Dry Dock #3 is the only active Dry Dock in the RLFMP and one of three true “over-the-dock” water dependent uses in the RLFMP; the others being Yankee Lobster at Parcel W1 and Coastal Cement at Parcel K. It is an active ship repair facility and the largest Dry Dock in New England. It is capable of handling a wide range of modern ships at over one thousand feet long with a base width of 125 feet and a top breadth of 149 feet.

Parcel Size	468,373 sf
Building Size	13,072 sf
Parcel Status	Active Dry Dock
Current use	Marine Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	Needed to support ship repair
Tenant(s)	Boston Ship Repair
Lease status	Current Term through 2057
Future development potential	Potential for mixed industrial development

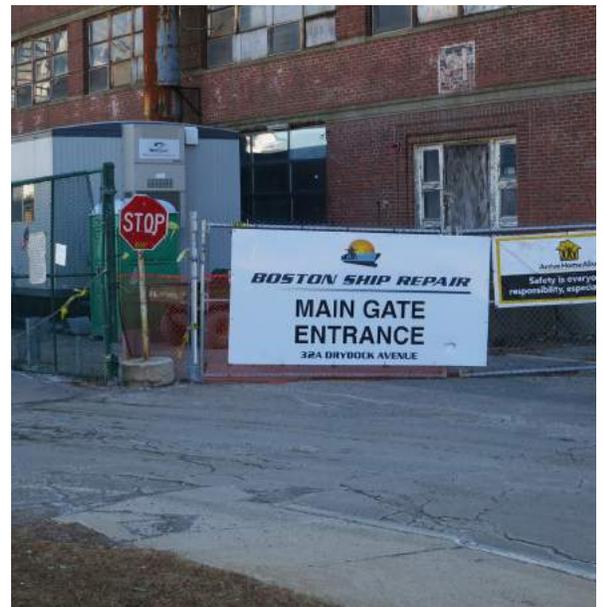


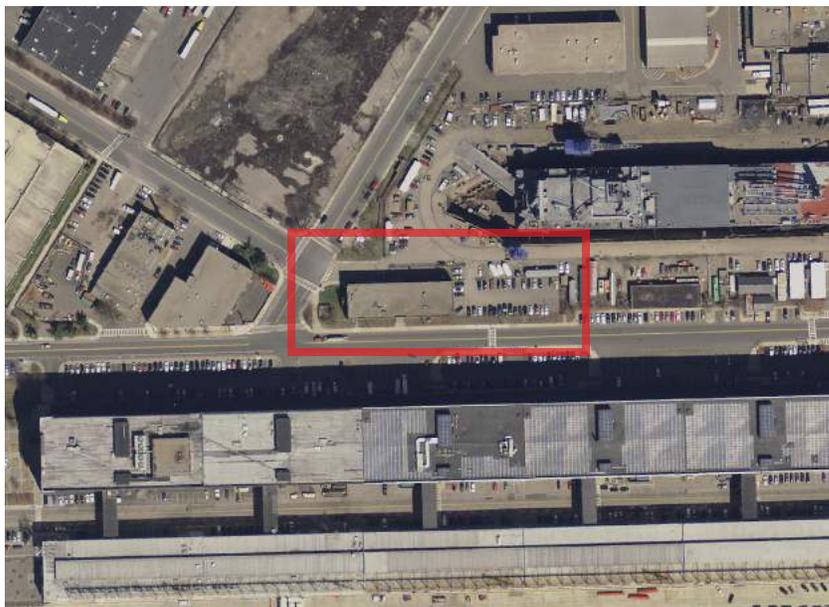
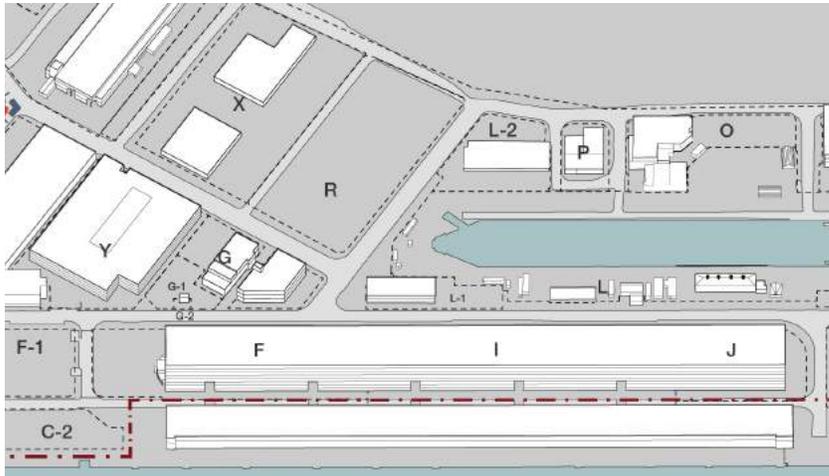
Short, medium and long term projects

- The shipyard needs additional laydown area, shop space, a wet berth and a power system upgrade.
- The shipyard capital improvements can be subsidized by the development of mixed industrial uses at Parcel L.

Other Considerations

- The shipyard would benefit from additional vessel support hookups. This could be accommodated at the jetty berths on the MMT and EDIC properties.





Parcel L-1 (24 Drydock Ave)

This building is currently unoccupied. It is leased to Boston Ship Repair but is vacant and in significant disrepair.

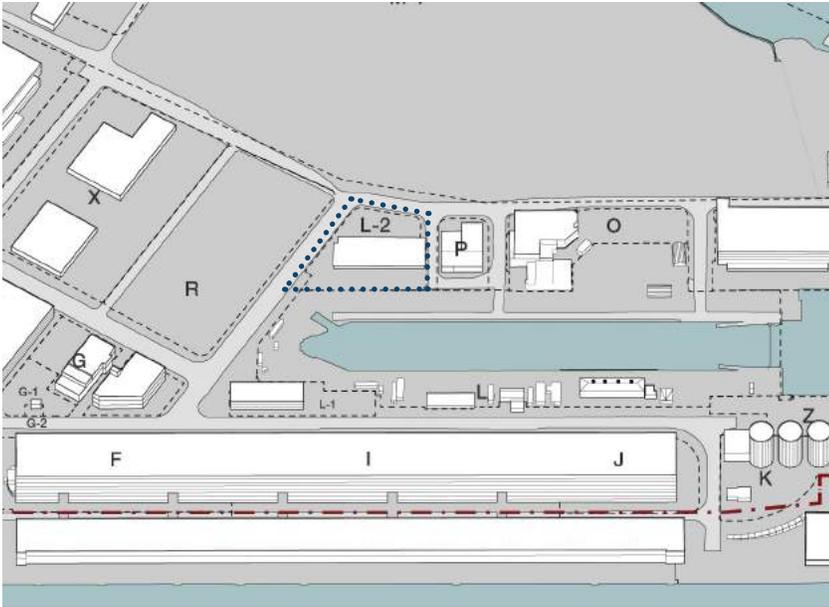
Parcel Size	32,324 sf
Building Size	32,214 sf
Parcel Status	Vacant
Current use	Marine Industrial (100%)
Designation	Tentatively Designated
Program for approved projects	235,500 sf of marine industrial, life sciences/research and development, and supportive uses
Infrastructure improvements	Site preparation
Tenant(s)	Boston Ship Repair
Lease status	Proposed 70 year lease
Future development potential	Mixed industrial development

Short, medium and long term projects

- Project proposed to demolish the existing three-story structure and construct a new eight-story, mixed-use building totaling approximately 235,500 square feet of marine industrial, life sciences/research and development, and supporting uses.

Other Considerations

- Boston Ship Repair will be a principal tenant in the proposed development.



Parcel L-2 (7 Tide Street)

Parcel L-2 sits at the corner of Tide Street and FID Kennedy, a major intersection for truck traffic circulating to the larger seafood processors on Parcel M1. This property provides showroom and warehousing space for heating and refrigeration systems, housing fixtures, and lighting equipment.

Parcel Size	58,400 sf
Building Size	36,110 sf
Parcel Status	Active
Current use	General Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	7 Tide Street, LLC; Multiple sub-tenants
Lease status	Current Term through 2079
Future development potential	Mixed industrial development

Short, medium and long term projects

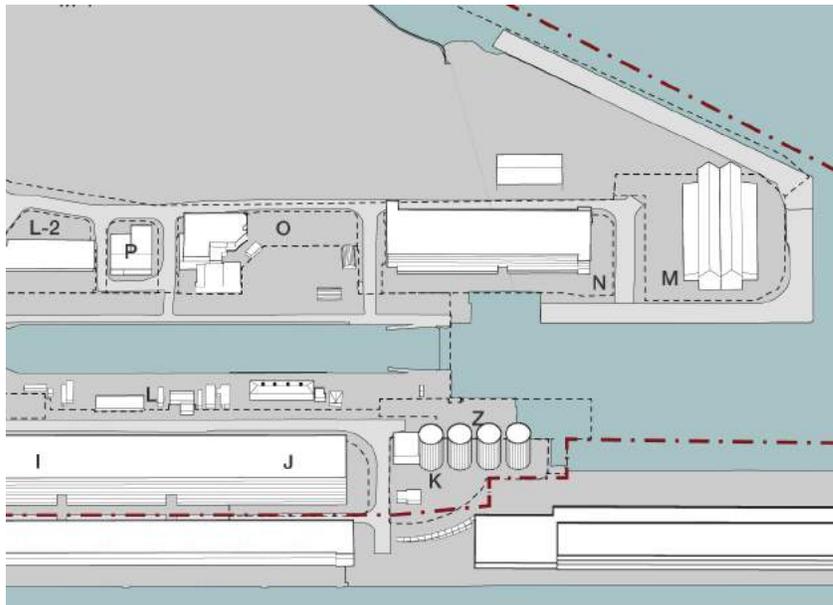
- No short term plans have been discussed for this parcel.

Other Considerations

- Future mixed-industrial use development opportunities.

Parcel M (3 Dolphin Way)

At over three acres, Parcel M was previously designated to Boston Global Investors and New Boston Food Market Development Corp. for 80,000 sf of fish processing and cold storage. Until recent years, it was used to house Subarus waiting for distribution.



Eastern Salt received tentative designation in 2021 and proposes to operate Parcel M as part of a larger, waterborne bulk marine cargo terminal along with MMT Parcels 7 and 8. The on-site building has reuse potential, but its structural condition is to be determined. Significant investment needs to be made in its waterside infrastructure to be used for “over-the-dock” water dependent use.

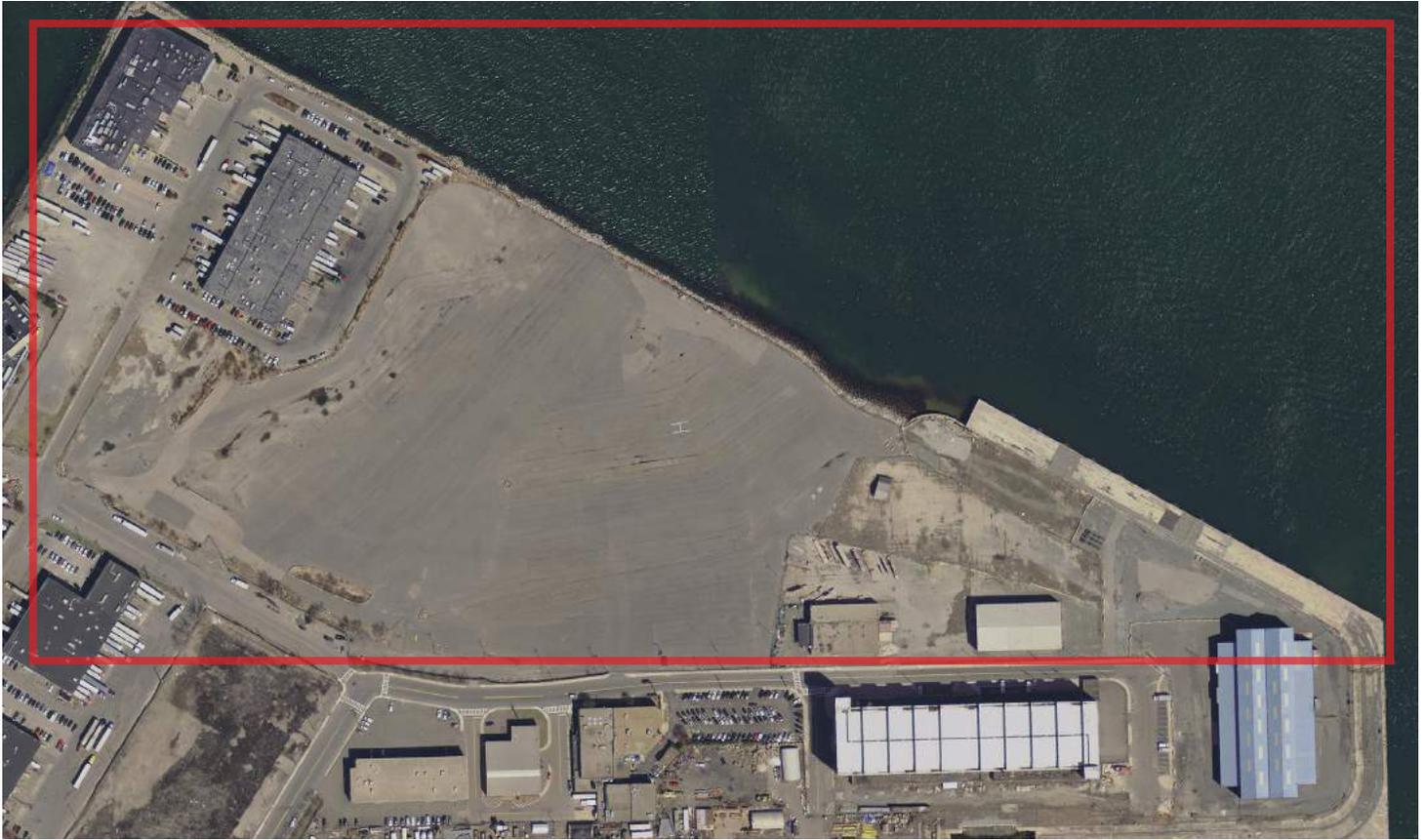
Parcel Size	134,595 sf
Building Size	57,221 sf
Parcel Status	Vacant
Current use	Marine Industrial (100%)
Designation	Tentatively Designated
Program for approved projects	Waterborne bulk marine cargo terminal
Infrastructure improvements	Reactivation of the North Jetty, internal truck circulation (across Parcel M and Parcels 7 & 8)
Tenant(s)	Eastern Salt
Lease status	Proposed 40-year ground lease
Future development potential	Mixed industrial development

Short, medium and long term projects

- Potential demolition of the existing building.
- Development of upland areas to support dry-bulk stockpiling and project cargo laydown and distribution operations.

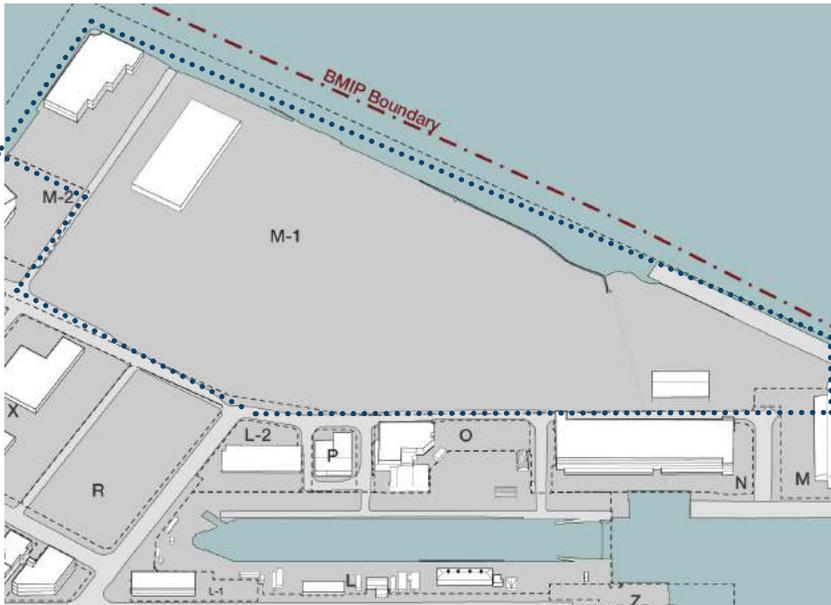
Other Considerations

- Additional investments being made at Parcels 7 & 8 of the MMT to reactivate the North Jetty and create an internal truck circulation route.
- Time limitations for use of Parcel M as bulk storage to be established through lease agreement.



Parce M-1 (Massport Marine Terminal)

This 40 acre parcel is leased to Massport by EDIC. The parcel is dedicated to maritime industrial use. The parcel benefits with its proximity to the North and East jetties that provide deep water berthing for future uses. True water-dependent uses (over-the-dock) will be difficult without significant improvements to the waterside infrastructure.



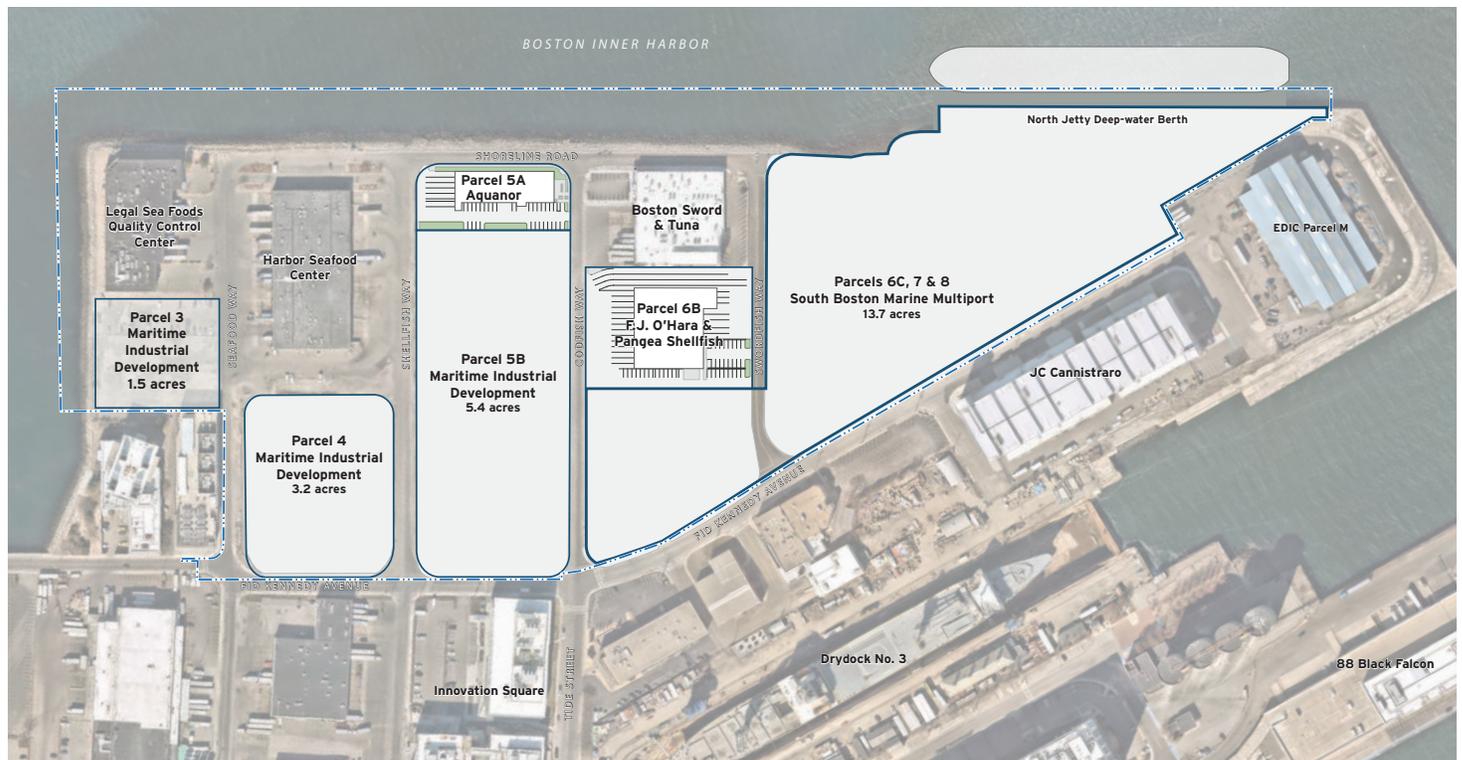
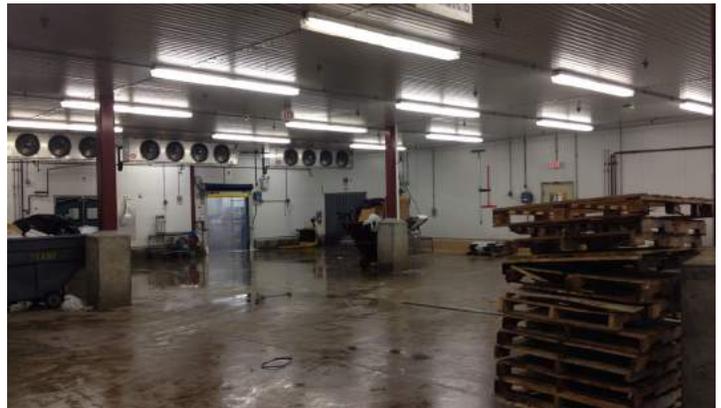
Parcel Size	1,456,089 sf
Building Size	146,341 sf
Parcel Status	Semi-active / Vacant
Current use	Marine Industrial (100%)
Designation	Partial
Program for approved projects	Marine Industrial
Infrastructure improvements	Jetty and bulkhead repairs needed
Tenant(s)	Massport; Multiple sub-tenants
Lease status	Current Term through 2120
Future development potential	Maritime Industrial Development

Short, medium and long term projects

- Massport is proceeding with maritime development on the presently vacant subparcels of the MMT.
- Present planned development includes Aquanor on Parcel 5A, F.J. O'Hara & Pangea Shellfish on Parcel 6B, and South Boston Marine Multiport (Eastern Salt) on Parcel 6C, 7, and 8.

Other Considerations

- Maritime industrial development on remaining subparcels is still underway.

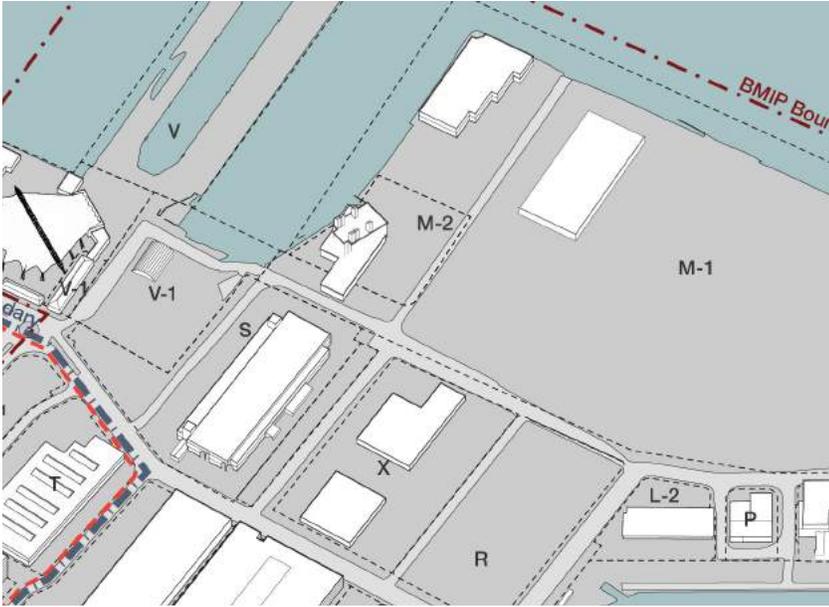


Massachusetts Port Authority
Real Estate & Asset Management
 February 2022

LEGEND

- MMT Development Parcels
- Massport Property

Development Plan
 Massport Marine Terminal
 South Boston, MA



Parcel M-2a and M2-b

The site is currently split into two parcels (M-2a and M-2b). M-2a is the vent building #6 owned by MassDOT. M-2b is an Eversource Station.

Parcel Size	91,957 sf
Building Size	49,266 sf
Parcel Status	Active
Current use	Marine Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	N/A
Tenant(s)	MassDOT (M-2a) / Eversource (M-2b)
Lease status	N/A
Future development potential	N/A

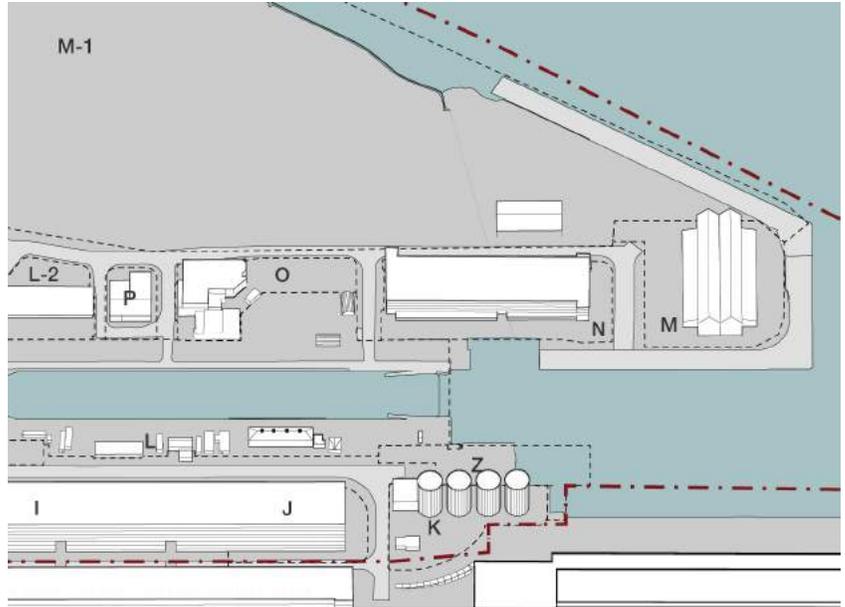
Short, medium and long term projects

- No future development projects for these sites.

Parcel N (25 FID Kennedy Avenue)

Parcel N was redeveloped by JC Cannistraro, a plumbing and HVAC company based in Watertown, MA. The business assembles and distributes HVAC systems and employs approximately 100 full-time workers.

Parcel Size	141,425 sf
Building Size	157,000 sf
Parcel Status	Active
Current use	General Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	J. C. Cannistraro
Lease status	Current Term through 2066
Future development potential	N/A



Short, medium and long term projects

- Cannistraro recently overhauled the building to accommodate welding, assembly, fabrication, materials storage, and new office space. The existing freight elevators and stair towers were upgraded and supplemented by a new enclosed fire staircase and an open-sided vertical lift for materials.

Other Considerations

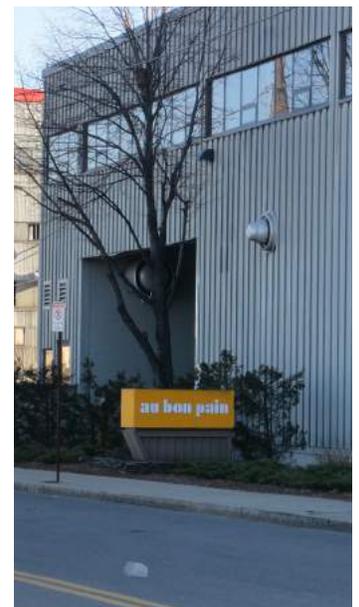
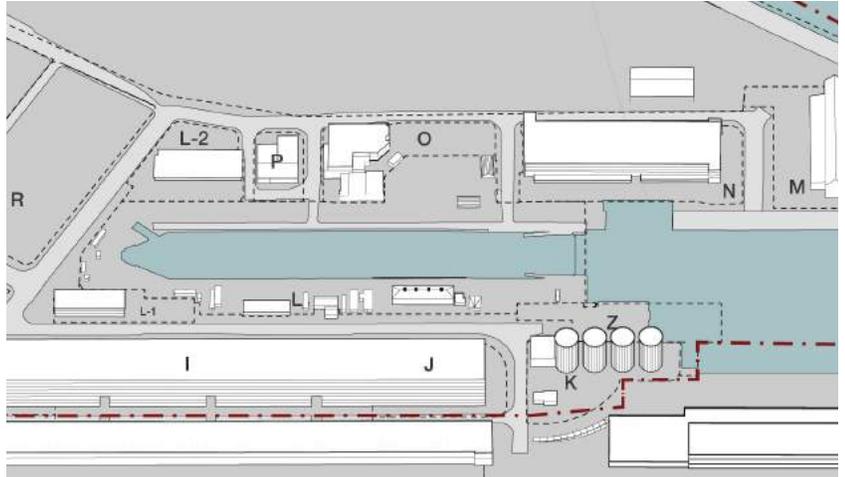
- Reuse of the existing structure as a pure 100% industrial use demonstrates the continued interest in the RLFMP for traditional industrial tenants.



Parcel O (19 FID Kennedy Avenue)

Au Bon Pain recently sold their leasehold to Marcus Partners for redevelopment. The parcel is proposed to be combined with Parcel P for a mixed industrial development site.

Parcel Size	61,105 sf
Building Size	46,879 sf
Parcel Status	Active
Current use	General Industrial (100%)
Designation	Tentatively Designated
Program for approved projects	219,000 square foot life sciences/research and development building
Infrastructure improvements	Improvements made as part of development project
Tenant(s)	MCP III Foundry, LLC (Marcus Partners)
Lease status	Proposed 99-year ground lease
Future development potential	Mixed industrial development



Short, medium and long term projects

- Combined Parcel O and Parcel P proposed to encompass a new, approximately 219,000 square foot life sciences/research and development building, and an approximately 9,000 square foot adaptive reuse of the existing building on Parcel P to serve as amenity space.

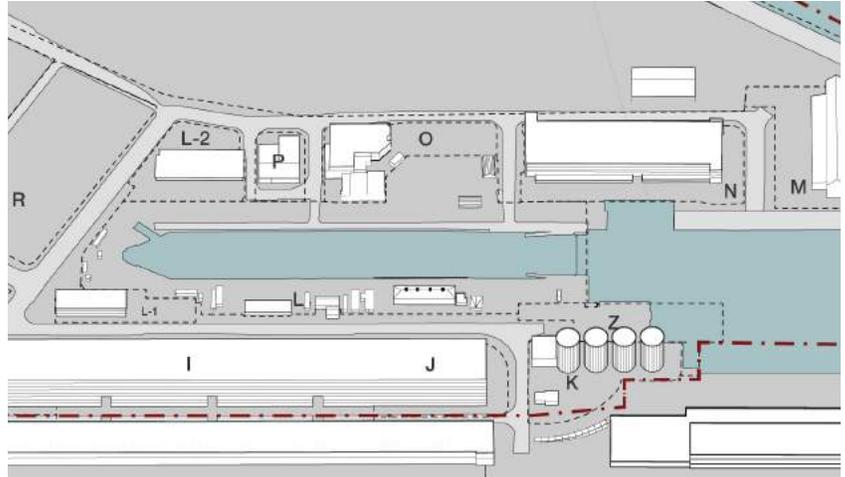
Other Considerations

- Existing parking lot on site proposed to remain for the foreseeable future.

Parcel P (3 Anchor Way)

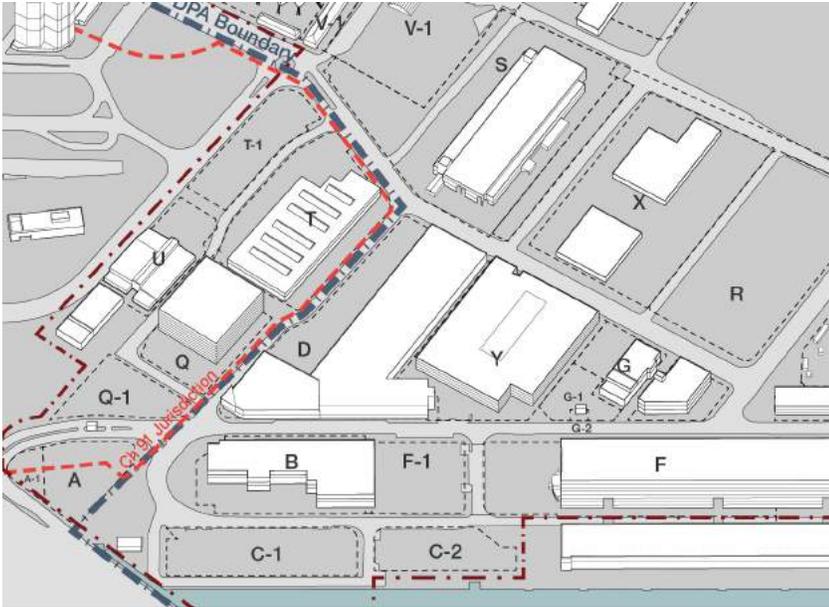
McDonald Steel recently sold their leasehold to Marcus Partners for redevelopment. The parcel is proposed to be combined with Parcel O for a mixed industrial development site.

Parcel Size	24,280 sf
Building Size	12,324 sf
Parcel Status	Active
Current use	General Industrial (100%)
Designation	Tentatively Designated
Program for approved projects	9,000 square foot adaptive reuse for amenity space
Infrastructure improvements	Improvements made as part of development project
Tenant(s)	MCP III Foundry, LLC (Marcus Partners)
Lease status	Proposed 99-year ground lease
Future development potential	Mixed industrial development



Short, medium and long term projects

- Combined Parcel O and Parcel P proposed to encompass a new, approximately 219,000 square foot life sciences/research and development building, and an approximately 9,000 square foot adaptive reuse of the existing building on Parcel P to serve as amenity space.



Parcel Q (12 Channel Street)

Parcel Q, commonly known as 12 Channel, is an EDIC owned and operated multi-tenant building. The majority of uses in this building are smaller scale manufacturing. Tenants include printing workshops, non-profit incubators, and furniture manufacturing. Many of the tenants are space intensive, low-margin businesses that are located in the RLFMP due to the affordable rent and proximity to a dense population center, specifically downtown.

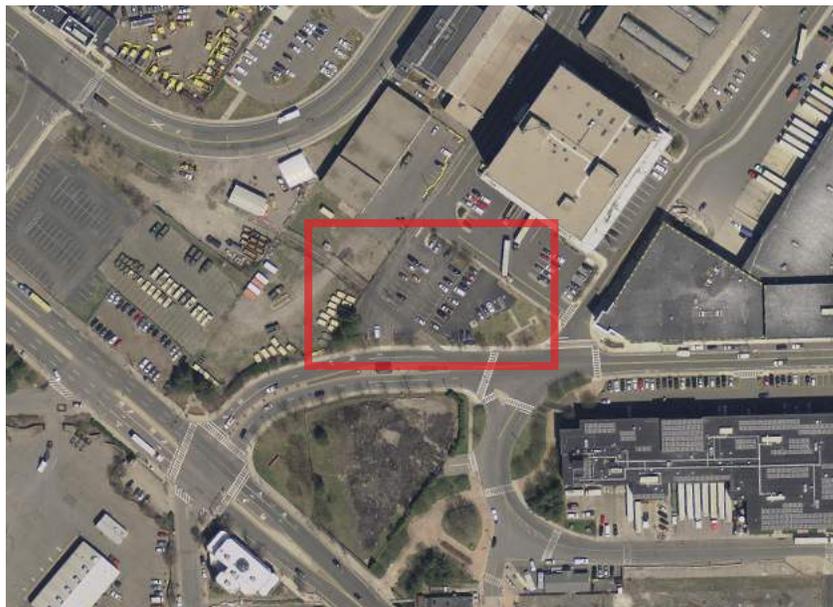
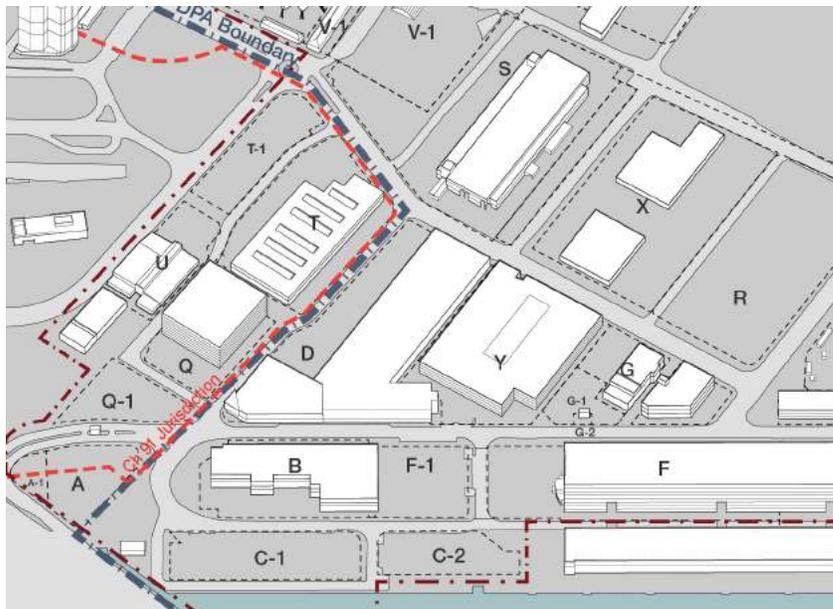
Parcel Size	69,182 sf
Building Size	356,450 sf
Parcel Status	Active
Current use	General Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	General improvements to the building
Tenant(s)	EDIC; Multiple sub-tenants
Lease status	Various suite leases held
Future development potential	N/A

Short, medium and long term projects

- The EDIC is completing a stair pressurization project at the 12 Channel Street building.
- Future projects aimed at reducing the building’s carbon footprint are being analyzed.

Other Considerations

- The 12 Channel Street model serves as a good precedent for the development model in the RLFMP. It is representative of a business cluster for lower-margin businesses and provides an active industrial job base.



Parcel Q-1 (New Commercial Office)

Parcel Q-1 (2 Drydock Avenue)

Parcel Q-1 was designated by the BPDA for development in Fall of 2015. The developer, Skanska USA, built a 298,700 SF office and retail development. The parcel sits outside of the Designated Port Area (DPA) and Chapter 91 Jurisdiction, and therefore, has more freedom in its permissible uses. While still within the boundaries of the RLFMP, the parcel was zoned for Waterfront Commercial, as of the 1999 RLFMP master plan. That zoning was put into effect in 2005 when the Park’s Chapter 91 Master License was updated.

The development sits directly at the entrance to the park on Drydock Avenue and Summer Street, providing a gateway into the district.

Parcel Size	36,799 sf
Building Size	298,700 sf
Parcel Status	Active
Current use	Commercial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	KRE 2DD Owner, LLC; Multiple sub-tenants
Lease status	Current Term through 2088
Future development potential	N/A

Short, medium and long term projects

- Construction on the new development was completed in 2020.

Other Considerations

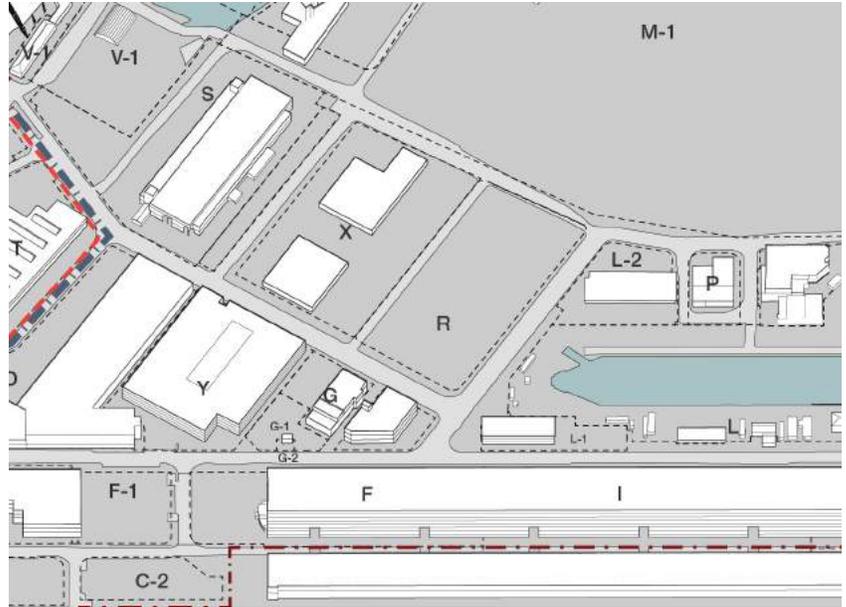
- The building has three floors of parking, consisting of 150 spaces.



Parcel R - Innovation Square (6 Tide Street)

The multi-phase development at Parcel R is expected to be completed in 2022. The project will be a facility of approximately 359,000 sf of multi-tenanted research and development/manufacturing space with Vertex as a primary tenant. Phase 1 consists of 120,000 sf and 84 accessory parking spaces. Phase 2 consists of 238,000 sf, of which approximately 10,000 sf is expected to be local retail / restaurant / services space, and 45 enclosed accessory parking spaces.

Parcel Size	179,791 sf
Building Size	359,000 sf
Parcel Status	Under Development
Current use	General Industrial (100%)
Designation	Approved
Program for approved projects	359,000 SF multi-tenanted research and development/manufacturing facility
Infrastructure improvements	Under Development
Tenant(s)	Related Beal; Primary tenant: Vertex
Lease status	Current Term through 2085
Future development potential	N/A



Short, medium and long term projects

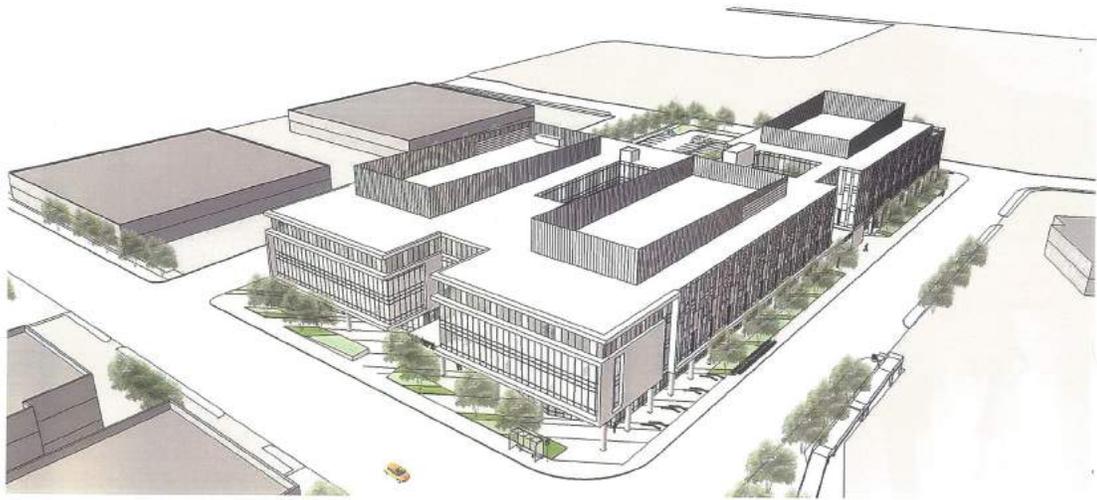
- Construction on the new development is expected to be completed in 2022.

Other Considerations

- A number of parking spaces have been secured through an agreement with EDIC at the parking garage at 12 Drydock Avenue.

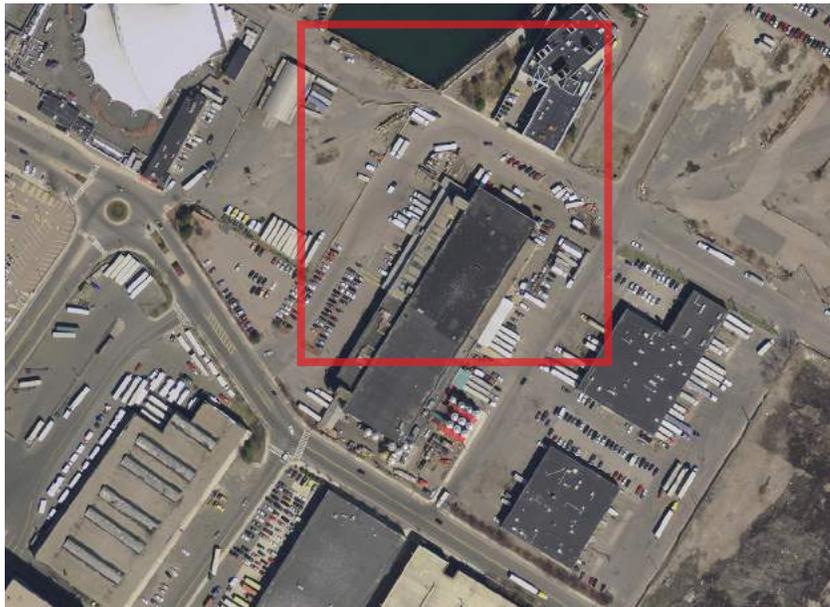
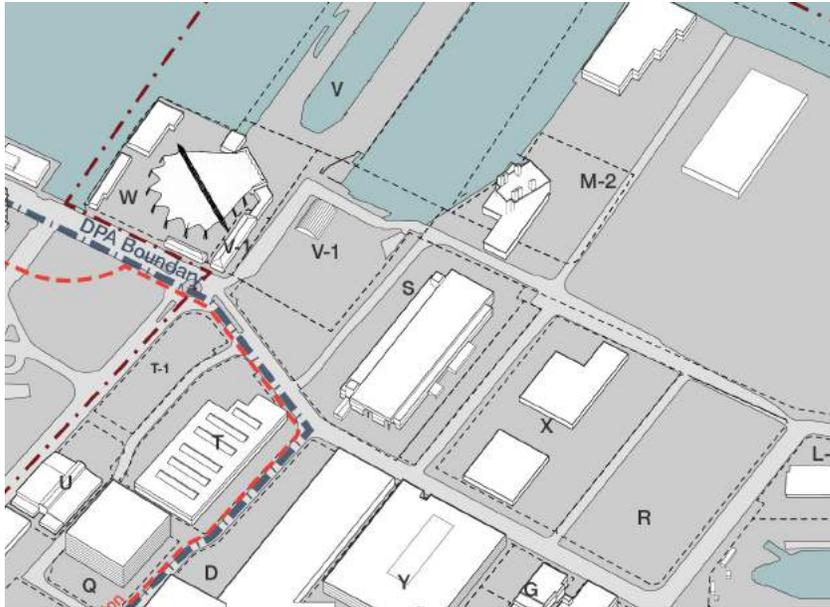
INNOVATION SQUARE AT NORTHERN AVENUE

BUILDING IMAGES



12 | 03 DECEMBER 2013





Parcel S-1 - Nagle Seafood (306 Northern Avenue)

While Parcel S is recorded in the spatial inventory as a single parcel and one unique building, it is seen by the EDIC as three separate parcels. Parcel S-1 is Nagle Seafood, Parcel S-2 is home to Harpoon, and Parcel S-3 is an existing parking lot owned by Harpoon.

Parcel S-1: Nagle Seafood is located in the rear half of the building complex with access from FID Kennedy. Nagle Seafood is one of many seafood distribution and processing facilities in the RLFMP and a long-standing tenant. There have been no plans discussed for Nagle Seafood.

Parcel Size	145,973 sf
Building Size	53,720 sf
Parcel Status	Active
Current use	Marine Industrial (100%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	Nagle Seafood
Lease status	Current Term through 2048
Future development potential	N/A

Short, medium and long term projects

- None.

Other Considerations

- None.



Parcel S-2/S-3 - Harpoon Brewery (306 Northern Avenue)

While Parcel S is recorded in the spatial inventory as a single parcel and one unique building, it is seen by the EDIC as three separate parcels. Parcel S-1 is Nagle Seafood, Parcel S-2 is home to Harpoon, and Parcel S-3 is an existing parking lot owned by Harpoon.

Parcel S-2: Harpoon Brewery, parent company Mass Bay Brewing Company, located in the park in 1987 due to the affordability of the land, amount of space and proximity to the city. Being close to the interstate is crucial to their business, as they operate in just-in-time logistics. Products coming in and going out are time sensitive, both raw materials and packaged goods. They have a separate facility in Woburn for finished goods. Most distribution is handled from the RLFMP facility. As a just in time business congestion is a threat to operations. Their shipping begins at 5am running smaller trucks multiple times a day., so preservation of the Haul Road is key to their operations.

Parcel S-3: This parking lot owned by Harpoon Brewery is being used as a temporary outdoor beer garden space. This lot could accommodate a new development consisting of mixed industrial space and additional commercial space, potentially for a new Harpoon rooftop beer garden.

Short, medium and long term projects

- Harpoon has the potential to expand/increase is production at the Boston facility, both in terms of number of tanks and by adding additional trucking shifts for distribution.
- The lack of rail service is not inhibiting the business from expanding.

Other Considerations

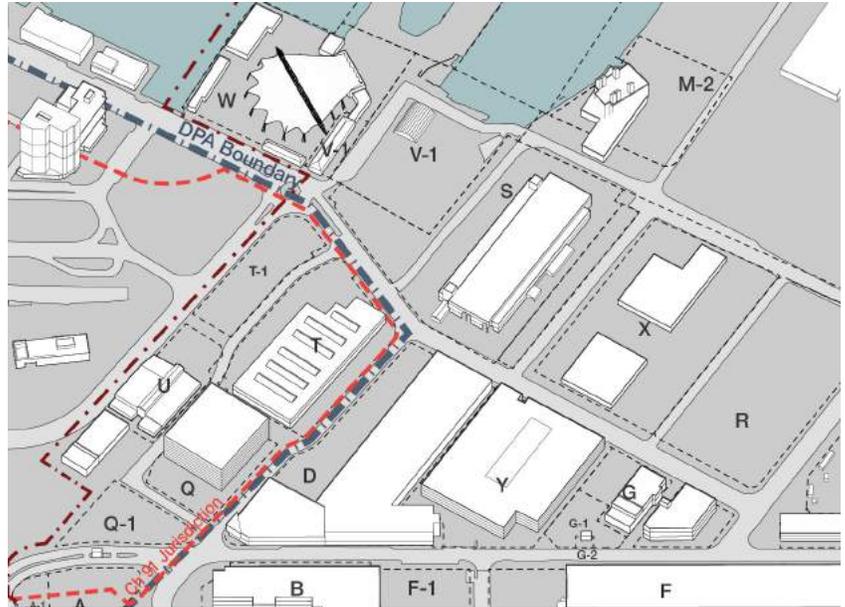
- Harpoon employees rely heavily on the Silver Line to get to work. Increased service on the Silver Line would be helpful for employees and visitor attraction.

Parcel Size	113,653 sf
Building Size	53,720 sf
Parcel Status	Active
Current use	General Industrial (90%), Commercial (10%)
Designation	N/A
Program for approved projects	N/A
Infrastructure improvements	None needed
Tenant(s)	Mass Bay Brewing Company
Lease status	Current Term through 2058
Future development potential	Potential for mixed industrial and expanded commercial space on S-3.

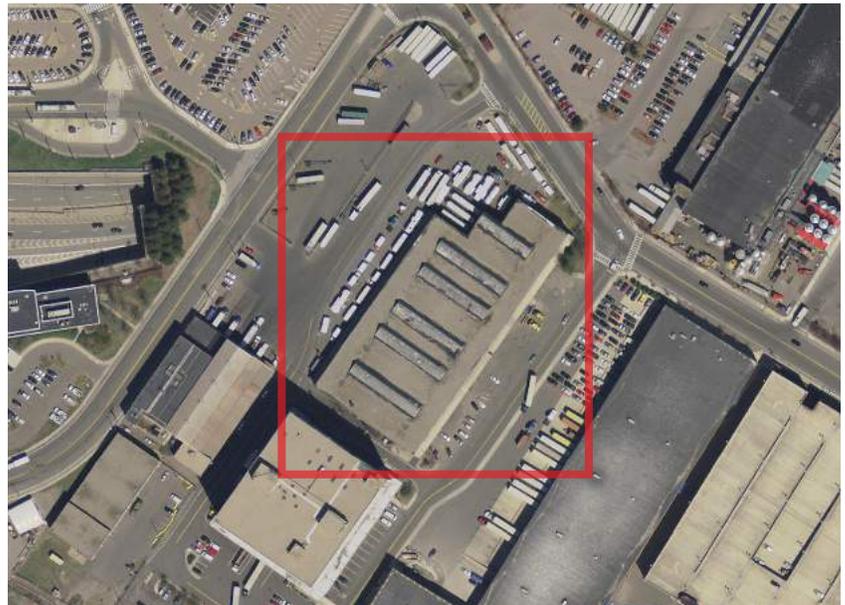
Parcel T/T-1 (2 Harbor Street)

The regulatory controls that guide Parcel T and T-1 are less restrictive than many of the parcels in the RLFMP. They are not within the DPA, as well as being outside of Chapter 91 boundary. This allows for greater flexibility of use. The challenge; however, is that Parcel T-1 sits directly over the I-90 tunnel to Logan Airport.

In 2020, the BPDA Board approved the demolition of the existing warehouse on-site and construction of a ten-story, approximately 380,800 square foot building including laboratory, research and development, office, and supporting uses. Beacon Capital then fully acquired site control for Parcel T from ICCNE, LLC and is proposing additional phases of similar general industrial development with consideration of the implications of the I-90 tunnel.



Parcel Size	142,438 sf
Building Size	135,748 sf
Parcel Status	Vacant
Current use	General Industrial (100%)
Designation	Approved
Program for approved projects	380,800 sf of laboratory, research and development, office, and supporting uses
Infrastructure improvements	Site preparation
Tenant(s)	Beacon Capital
Lease status	Proposed 99-year ground lease
Future development potential	Potential for future phases of R&D development



Short, medium and long term projects

- Demolition of the previous on-site structure has been completed.
- Beacon Capital moving forward with the preparation and approvals of the Phase I development.
- Additional development phases are being proposed as an expansion to the South Boston Innovation Campus.

Other Considerations

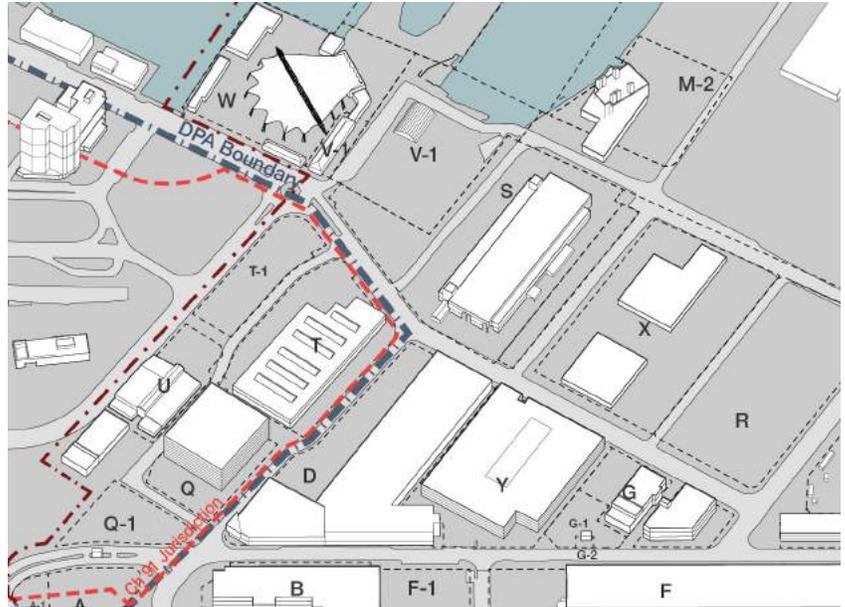
- None.



Parcel U (7 Channel Street)

Parcel U was once home to Stavis Seafoods in the RLFMP. They have since moved to another location. Parcel U is not within the DPA boundary. The building on Parcel U is currently in a state of disrepair and will likely need to be demolished.

Parcel Size	45,310 sf
Building Size	27,049 sf
Parcel Status	Vacant
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	N/A
Tenant(s)	None
Lease Status	N/A
Future Development Potential	Potential for future mixed industrial development or municipal use



Short, medium and long term projects

- Possible site of a mixed use development or municipal facilities such as a new fire station, as needed.

Other Considerations

- None.

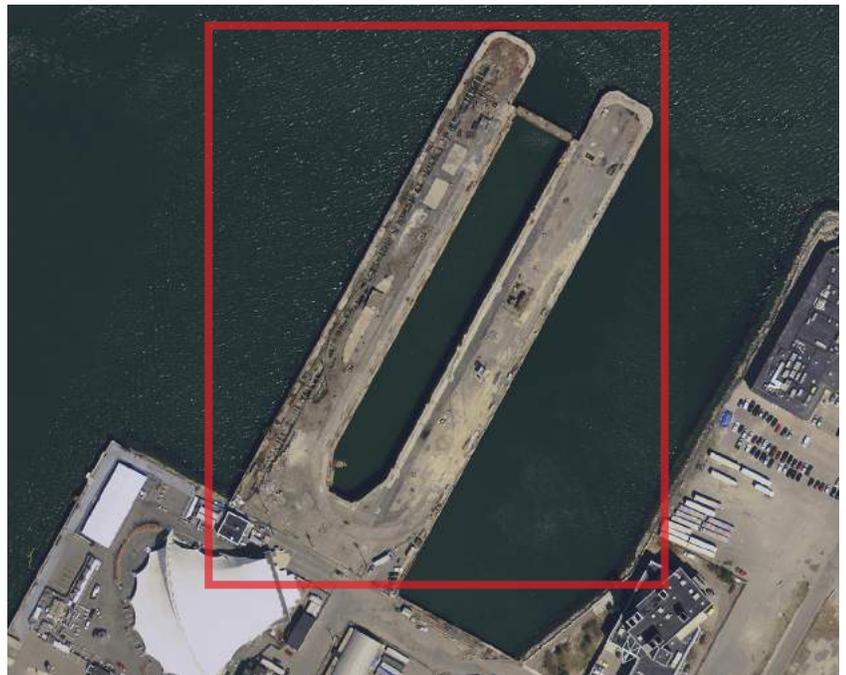
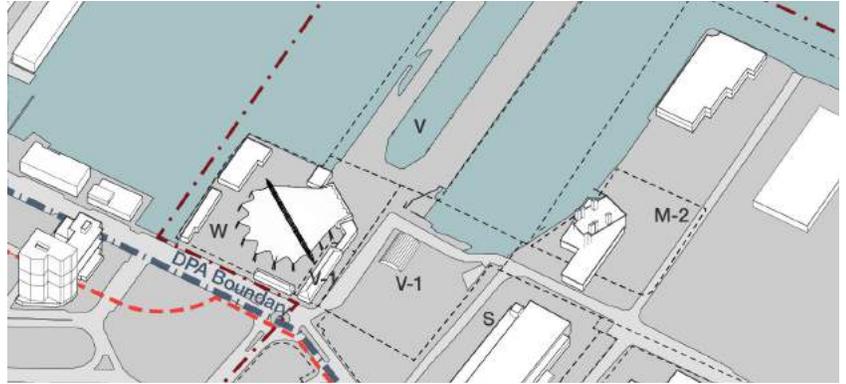


Parcel V (Drydock #4)

Dry Dock #4 is in extreme disrepair and is no longer a functioning dry dock. The facility is in a serious state of disrepair, and is presently undergoing repairs to stabilize the existing steel sheet piling bulkhead structures and caisson. Repairs to the western wharf have been estimated at \$6M. Even if substantial investments were made in the dry dock, it is unlikely that it would be used as a working dry dock, and that there is any demand for an over-the-dock marine use. Justifying the cost of improvements is difficult pending demand.

By reviewing the various planning layers and the parcel and planning analysis of the RLFMP Master Plan we begin to see opportunities for expanded open space and public facilities in the Dry Dock No. 4 and parcels W and V1 area.

This area of the RLFMP makes up the Northern Avenue gateway already animated and activated by the Leader Bank Pavilion, Yankee Lobster retail and restaurant uses and Harpoon Brewery’s beer hall. This gateway will be strengthened by the mix-use project underway at Massport Parcel K that will add residential and hotel uses along Northern Avenue.



Parcel Size	252,004 sf
Building Size	N/A
Parcel Status	Vacant
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	Recent improvements to Dry Dock No. 4 De-watering pump
Tenant(s)	None
Lease Status	N/A
Future Development Potential	TBD

Short, medium and long term projects

- While Dry Dock No. 4 may not be suitable for traditional maritime industrial uses it could serve the RLFMP and Commonwealth Flats area as a mix of open space and water dependent activity comparable to Long Wharf in Downtown Boston that is a mix of open space, Harborwalk, water transportation facilities and civic and commercial uses that create a year round public destination.v

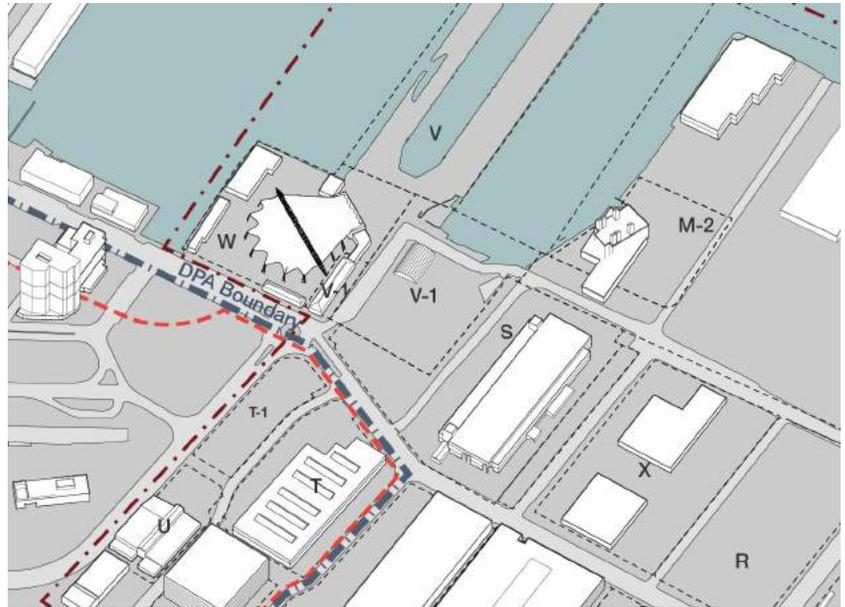
Other Considerations

- Parcel V is presently licensed for laydown area for multiple local construction projects.

Parcel V-1 (302 Northern Avenue)

Parcel V-1 is somewhat compromised in its development potential in part because it sits above the I-90 tunnel. The parcel is presently utilized as a surface parking lot; however, could be converted into open space.

Parcel Size	86,716 sf
Building Size	N/A
Parcel Status	Active
Current Use	Parking
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	None needed
Tenant(s)	EDIC
Lease Status	N/A
Future Development Potential	N/A



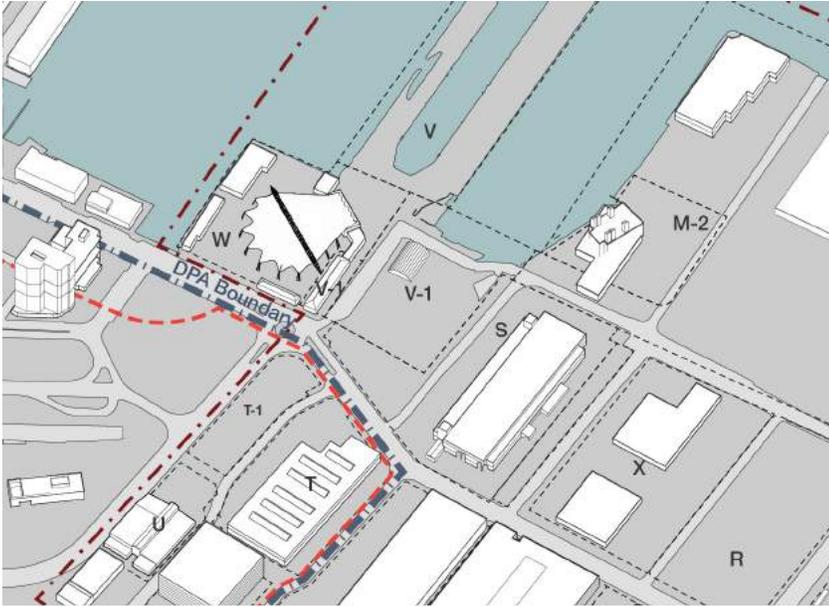
Short, medium and long term projects

- No short-term improvements have been suggested, but in the long term the site could be redeveloped for marine industrial use or open space.

Other Considerations

- None.





Parcel W - Leader Bank Pavilion (290 Northern Avenue)

The Leader Bank Pavilion is currently considered a temporary use in the RLFMP. The concert venue has been in the RLFMP for over 15 years, and at this point it is considered a stable fixture.

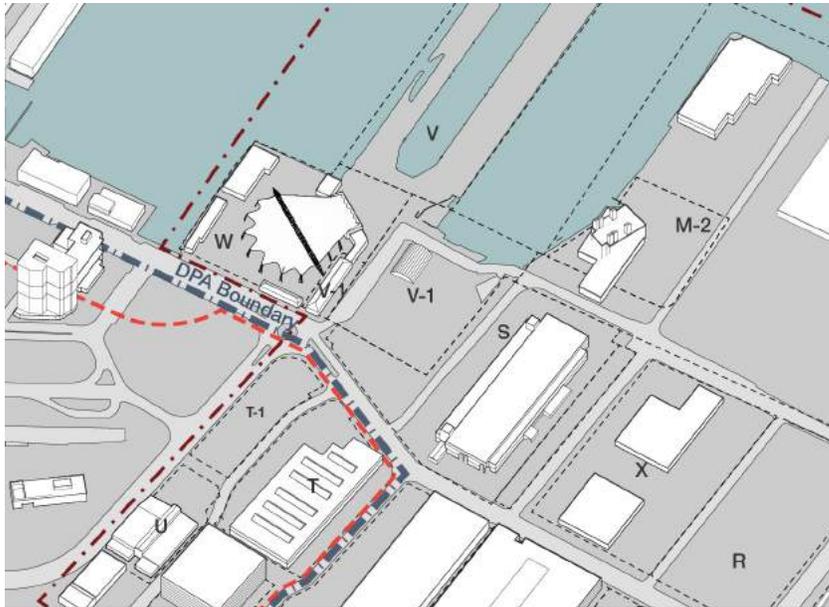
Parcel Size	118,803 sf
Building Size	107,440 sf
Parcel Status	Active
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	None needed
Tenant(s)	Live Nation
Lease Status	Temporary License Agreement
Future Development Potential	Marine Industrial or Open Space

Short, medium and long term projects

- The future development conditions for the parcel are predicated on whether or not there is a suitable maritime dependent use that can be built on that parcel. If so, the pavilion must be given 18 months notice. Otherwise, it will likely stay a temporary use.

Other Considerations

- The impacts of the pavilion on the operations of the RLFMP are nominal. Its hours operate at an opposite schedule to the industrial operations. Most shows are at night and weekends.
- Because of high Silver Line use for the events, parking has not been a critical issue.
- The Silver Line operations are critical to the continued success of the pavilion as a concert and entertainment venue.



Wharf 8 / Pier 7

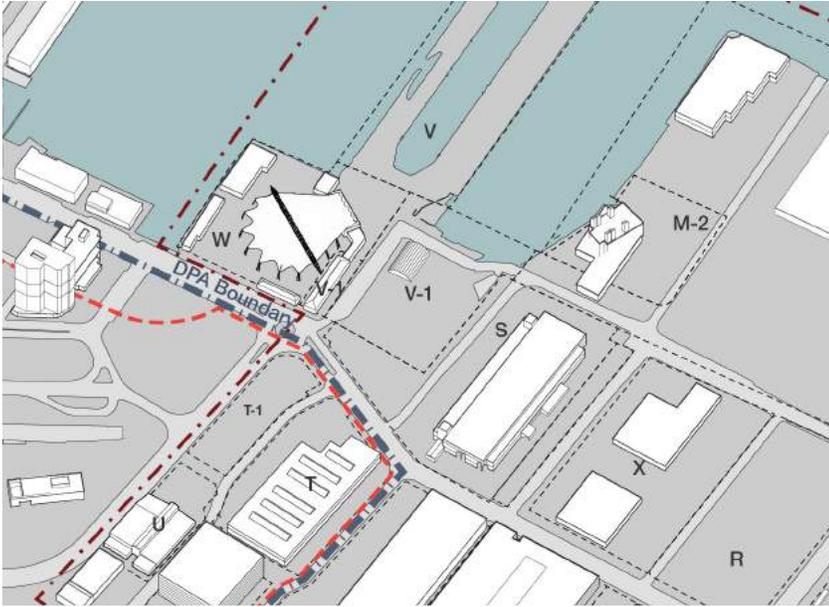
The Site consists of the historic boundaries of Wharf 8 and Pier 7 and adjacent water-sheet. Wharf 8 and Pier 7 were removed by prior activities and may be reconstructed in a manner that is consistent with the Final Master Plan (EOEA# 8161) and the Master Chapter 91 License (No. 10233) and its implementing procedures.

The vacant site is comprised of an existing pile field and adjacent watersheet. Wharf 8 and Pier 7 could be planned for water-dependent industrial uses; however, nothing is contemplated at this time.



Parcel Size	284,260 sf
Building Size	86,832 sf pile field
Parcel Status	Vacant
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	Needed
Tenant(s)	N/A
Lease Status	N/A
Future Development Potential	Marine Industrial Development





Parcel W-1 (300 Northern Avenue)

Yankee Lobster, the primary user for Parcel W-1, is one of only three true “water dependent” uses in the RLFMP, the others being the Ship Repair facility and Coastal Cement. Yankee Lobster uses water from the harbor to fill their lobster and crab tanks. The business operates as a seafood wholesaler that also has a restaurant component. The business’ retail component has become a big part of its success and identity.

It primarily uses box trucks and vans for local or regional delivery, requiring a smaller loading area than many of the large seafood distribution facilities. Therefore, despite its small physical footprint, it is still able to operate effectively.



Parcel Size	13,619 sf
Building Size	6,233 sf
Parcel Status	Active
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	None needed
Tenant(s)	Yankee Lobster
Lease Status	Current Term through 2041
Future Development Potential	N/A

Short, medium and long term projects

- There have been no immediate discussions about this parcel.

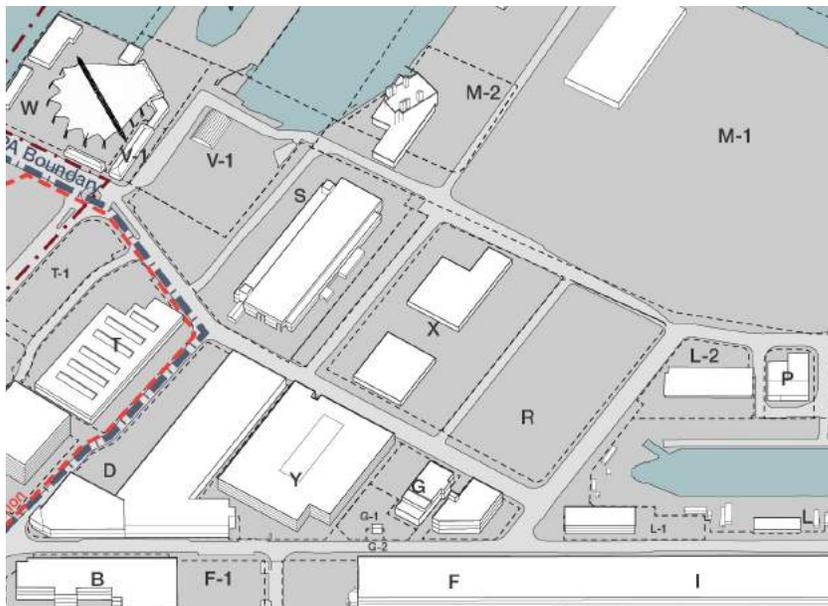
Other Considerations

- Traffic and parking were expressed as concerns for Yankee Lobster, primarily ensuring that they have access to the Haul Road and the interstate for their business logistics.

Parcel X (310 Northern Avenue)

Parcel X is presently the New Boston Seafood Center, two large, multi-tenant processing and distribution facilities. These businesses comprise a large part of the seafood cluster in the RLFMP. They all rely on truck access and highway access for their business operations. Many of these businesses have reciprocal relationships. Larger seafood wholesalers coming from out of town can deliver to multiple businesses, who then finalize the logistics chain by delivering locally after processing.

The seafood businesses that are part of the New Boston Seafood Center may be relocated to another location within the RLFMP and Parcel X may be redeveloped into a mixed industrial use. Marcus Partners has proposed to facilitate the relocation and take on site control for redevelopment.



Parcel Size	183,105 sf
Building Size	58,961 sf
Parcel Status	Active
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	None needed
Tenant(s)	New Boston Seafood
Lease Status	Current Term through 2058
Future Development Potential	Mixed industrial development

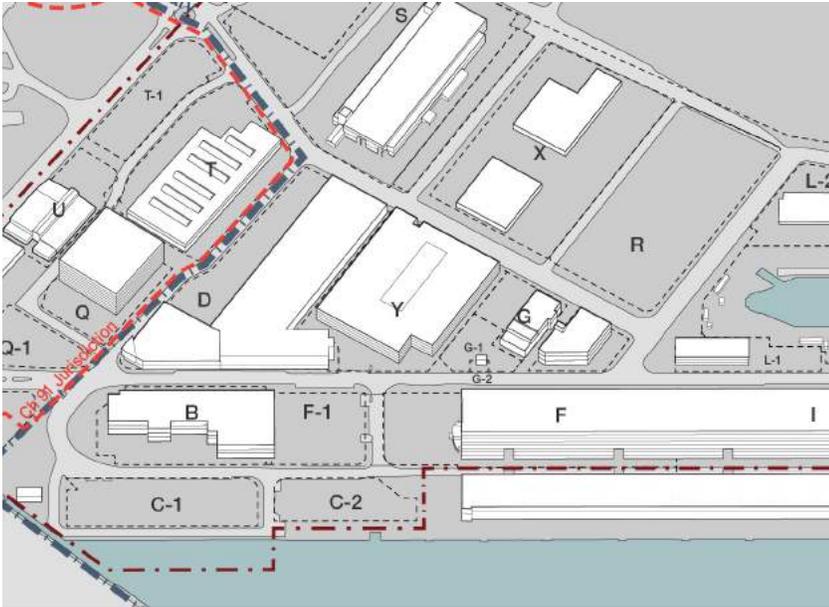


Short, medium and long term projects

- The businesses located here may be part of the transformation of the RLFMP, occupying a portion of new industrial development. This would maintain a seafood cluster in the park, but allow for additional revenue for infrastructure improvements.

Other Considerations

- Redevelopment scenarios must preserve loading needs and access to the highway.



Parcel Y - EDIC Parking Garage (12 Drydock Avenue)

Parcel Y is an EDIC owned parking garage with 1,766 parking spaces. This is the only public parking garage in the RLFMP currently.

Because parking is at a premium in the RLFMP, the EDIC is managing the demands of existing and new businesses asking for additional dedicated spaces in the garage. Pricing strategies are being explored to try to encourage alternative modes of transportation for tenants accessing the RLFMP.

Parcel Size	147,252 sf
Building Size	109,095 sf
Parcel Status	Active
Current Use	N/A
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	General Maintenance and Repairs
Tenant(s)	EDIC
Lease Status	N/A
Future Development Potential	N/A

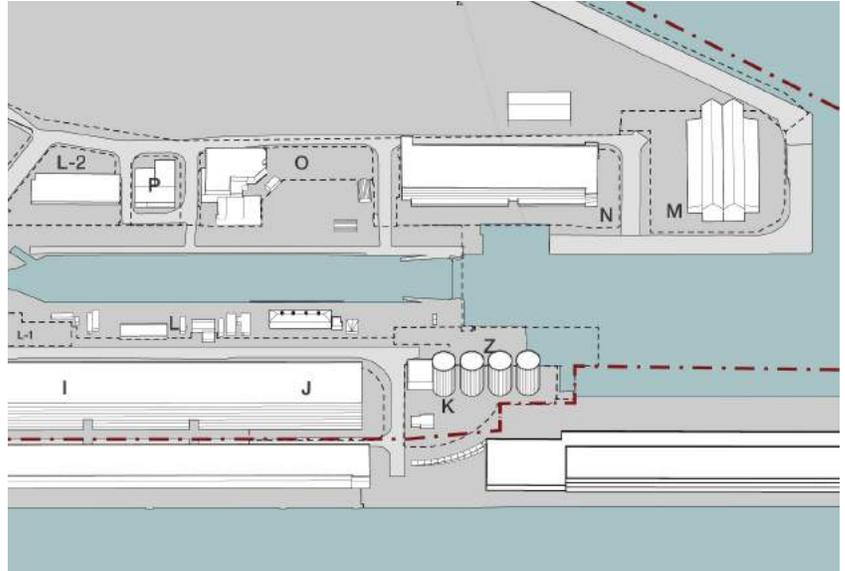
Short, medium and long term projects

- There are no plans to redevelop this site.
- A solar canopy is proposed to be installed on the roof of the parking garage, providing a new renewable energy source to the RLFMP.

Parcel Z - Pier 10 (34 Drydock Avenue)

This is currently open space and designated as part of the Harbor Walk.

Parcel Size	58,825 sf
Building Size	N/A
Parcel Status	Open Space
Current Use	Marine Industrial (100%)
Designation	N/A
Program for Approved Projects	N/A
Infrastructure Improvements	Improvements to Pier 10
Tenant(s)	N/A
Lease Status	N/A
Future Development Potential	N/A



Short, medium and long term projects

- There are no plans to change the use or develop on this site.
- A ferry terminal may be added to Pier 10 to increase water transit access to the RLFMP.





**boston planning &
development agency**



Raymond L. Flynn Marine Park

Appendix 1: Technical Memoranda



City of Boston



Client

City of Boston
Economic Development and Industrial Corporation d/b/a
Boston Planning and Development Agency

Consultants

Utile
Nelson Nygaard
Durand & Anastas
Ninigret Partners
HDR
Byrne & McKinney
Noble, Wickersham & Heart
Stantec

February 2022

Table of Contents

1. Transportation Planning 128
2. Waterfront Infrastructure Assessment 221
3. Regional Port Trends Analysis 245
4. Marine Industrial Demand Analysis 259
5. Mixed Industrial Uses 263

Transportation Planning

**Raymond L. Flynn Marine Park
Master Plan Update**

FINAL

July 23, 2021

Prepared for:

Boston Planning and Development
Agency



Table of Contents

1.1 EXECUTIVE SUMMARY.....	1
1.1 PURPOSE.....	2
1.2 LAND USE ASSUMPTIONS.....	4
1.2.1 Existing Condition	4
1.2.2 No-Build Condition	6
1.2.3 Build Condition.....	7
1.3 ROADWAY.....	8
1.3.1 Existing Conditions.....	10
1.3.2 Future No-Build Travel Assumptions.....	23
1.3.3 Future Build Travel Assumptions.....	30
1.4 PARKING.....	39
1.4.1 Existing Condition	40
1.4.2 Future No-Build Conditions	41
1.5 FREIGHT	41
1.5.1 Existing Conditions.....	42
1.5.2 Future No-Build Travel Assumptions.....	49
1.6 ACTIVE TRANSPORTATION.....	49
1.6.1 Bicycle Networks.....	49
1.6.2 Pedestrian Networks	55
1.7 TRANSIT.....	55
1.7.1 Existing Conditions.....	57
1.7.2 Future No-Build Travel Assumptions	59
1.8 TRANSPORTATION DEMAND MANAGEMENT	62
1.8.1 Current Measures	62
1.8.2 Future No-Build Travel Assumptions.....	64
1.8.3 Future Build Travel Assumptions.....	64
1.9 ALTERNATIVES ANALYSIS – COMPARATIVE TRANSPORTATION IMPACTS.....	66
1.10 MITIGATED BUILD ANALYSIS	73
1.11 MITIGATION	84
1.11.1 Roadway/Freight	84
1.11.2 Parking.....	85
1.11.3 Active Transportation.....	85
1.11.4 Transit	85
1.11.5 Transportation Demand Management.....	86
1.12 CONSULTATION WITH ADVOCACY GROUPS	87
1.13 APPENDICES	87

LIST OF TABLES

Table 1: Build Condition Inputs7

Table 2: Land Use Inputs of Build Condition Scenarios.....8

Table 3: Level-of-Service Criteria at Signalized Intersections.....17

Table 4: Level-of-Service Criteria at Unsignalized Intersections.....18

Table 5: Existing Conditions on Existing Roadway Network Analysis – Signalized Intersections20

Table 6: Existing Conditions on Existing Roadway Network Analysis – Unsignalized Intersections22

Table 7: Growth in Driving Trips in the No-Build Condition23

Table 8: Future No-Build Conditions on No-Build Roadway Network Analysis – Signalized Intersections27

Table 9: Future No-Build Conditions on No-Build Roadway Network Analysis – Unsignalized Intersections29

Table 10: Unadjusted Trip Generation – FAR 2.0.....31

Table 11: Mode Share – FAR 2.0.....31

Table 12: Project Generated Vehicle Trips – FAR 2.032

Table 13: Trip Distribution by Gateway Intersection – RLFMP Growth32

Table 14: Future Build 2.0 Conditions on No-Build Roadway Network Analysis – Signalized Intersections37

Table 15: Future Build 2.0 Conditions on No-Build Roadway Network Analysis – Unsignalized Intersections39

Table 16: MBTA Service in the Raymond L Flynn Marine Park58

Table 17: Existing MBTA Capacity Analysis – Daily59

Table 18: Existing MBTA Capacity Analysis – AM Peak Hour59

Table 19: Existing MBTA Capacity Analysis – PM Peak Hour59

Table 20: Growth in Transit Trips in the No-Build Condition60

Table 21: No-Build MBTA Capacity Analysis – Daily61

Table 22: No-Build MBTA Capacity Analysis – AM Peak Hour.....61

Table 23: No-Build MBTA Capacity Analysis – PM Peak Hour.....62

Table 24: Mode Share Data and Future Targets65

Table 25: Unadjusted Trip Generation – FAR 4.0.....75

Table 26: Mode Share – FAR 4.0.....75

Table 27: Project Generated Vehicle Trips - FAR 4.0.....76

Table 28: Future Build 4.0 Conditions on Mitigated Roadway Network Analysis – Signalized Intersections79

Table 29: Future Build 4.0 Conditions on Mitigated Roadway Network Analysis – Unsignalized Intersections81

Table 30: Build MBTA/Transit Capacity Analysis – Daily82

Table 31: Build MBTA/Transit Capacity Analysis – AM Peak Hour.....83

Table 32: Build MBTA/Transit Capacity Analysis – PM Peak Hour.....83

LIST OF FIGURES

Figure 1: Projected development estimates for the South Boston Waterfront as reported for the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study5

Figure 2: The South Boston Waterfront study area used for the South Boston Waterfront Sustainable Transportation Plan is reflected in an orange boundary.....6

Figure 3: Study Area Intersections10

Figure 4: Tide Street at Northern Avenue and Drydock Avenue (Left).....11

Figure 5: Northern Avenue at Haul Road and Fid Kennedy Avenue (Left).....11

Figure 6: Northern Avenue / Seaport Boulevard at D Street (Right)12

Figure 7: Drydock Avenue and Pappas Way at Summer Street (Left).....12

Figure 8: Fargo Street at Summer Street (Right).....13

Figure 9: Pumphouse Road at Summer Street (Left).....13

Figure 10: Pumphouse Road at Haul Road (Right)14

Figure 11: D Street at Summer Street (Right).....14

Figure 12: Mass Pike Exit 25 Off-Ramp at Haul Road (Left).....15

Figure 13: Jurisdiction of study area roadways.....16

Figure 14: Traffic volumes under Existing Conditions.....19

Figure 15: Level-of-service analyses for Existing Conditions.....19

Figure 16: A reconstructed Northern Avenue between Tide Street and Haul Road/Fid Kennedy Avenue will feature dedicated bicycle facilities, pulling bike/ped traffic from the more industrial-oriented Fid Kennedy Avenue (source: BPDA)24

Figure 17: Traffic volumes under No-Build Conditions.....26

Figure 18: Level-of-service analyses under No-Build Conditions.....26

Figure 19: Growth in traffic volumes under the FAR 2.0 Build scenario33

Figure 20: AM trip distribution for RLFMP growth.....34

Figure 21: PM trip distribution for RLFMP growth.....35

Figure 22: Traffic volumes under FAR 2.0 conditions36

Figure 23: Level of service analyses under FAR 2.0 conditions36

Figure 24: Parking by parcel in the RLFMP (source: BPDA)40

Figure 25: Existing (as of November 2017) and proposed truck routes in the South Boston Waterfront (source: Massport)42

Figure 26: Truck travel towards the RLFMP shows that truck activity is most intense outside of peak travel periods (source: 2 Harbor Street PNF and E Street Connector FDR)44

Figure 27: Truck travel away from the RLFMP shows that truck activity is most intense outside of peak travel periods (source: 2 Harbor Street PNF and E Street Connector FDR)45

Figure 28: Truck activity entering the Park peaks along Northern Avenue during off-peak travel periods in the late morning and early afternoon (source: 2 Harbor Street PNF).....46

Figure 29: Truck activity entering the Park peaks along Haul Road during off-peak travel periods in the late morning and early afternoon (source: 2 Harbor Street PNF)46

Figure 30: Eastbound (towards South Boston) truck activity along Summer Street peaks during the late morning and early afternoon (source: 88 Black Falcon PNF).....47

Figure 31: Westbound (towards Downtown Boston) truck activity along Summer Street peaks during the morning peak period and late morning/early afternoon (source: 88 Black Falcon PNF)47

Figure 32: Existing bicycle network in the RLFMP (source: Boston Transportation Department).....50

Figure 33: Definition of Each Level of Traffic Stress Score from Bicycle Level of Stress Report (City of Boston)51

Figure 34: Bicycle Level of Traffic Stress52

Figure 35: Proposed bicycle network in the South Boston Seaport54

Figure 36: Proposed bicycle network in the RLFMP54

Figure 37: Pedestrian and multimodal infrastructure in the Park (source: BPDA)55

Figure 38: Transit routes in the South Boston Waterfront (source: BTM, MBTA)57

Figure 39: Silver Line Historical Ridership from Silver Line Capacity Study.....58

Figure 40: Bike Parking Guidelines for new development projects (source: BTM)64

Figure 41: A long-term condition of the RLFMP shifts industrial uses to north of Northern Avenue, emphasizing Fid Kennedy Avenue’s purpose as a truck route and shifting truck traffic away from the Drydock Avenue, Harbor Street, and Tide Street corridors. (source: 2017 RLFMP DMPU)67

Figure 42: The extension of E Street to meet Pumphouse Road will encourage trucks to access RLFMP via Haul Road rather than via the Summer Street/Drydock Avenue/Pappas Way intersection (source: MassDOT)69

Figure 43: Connecting Haul Road with Drydock Avenue will shift access along the Drydock Avenue corridor from Summer Street to Haul Road, in combination with the anticipated E Street Connector (source: BPDA and Massport)70

Figure 44: Anticipated future truck movements will emphasize E Street and Fid Kennedy Avenue as access points, and facilitate the removal of D Street as a truck route (basemap source: Massport)71

Figure 45: Changes in traffic volumes under the FAR 4.0 Mitigated Build condition77

Figure 46: Traffic volumes under the FAR 4.0 Mitigated Build condition.....78

Figure 47: Level-of-service analyses for the FAR 4.0 Mitigated Build condition.....78

LIST OF APPENDICES

- Trip generation methodology
- Traffic, bicycle, and pedestrian counts
- Synchro analysis

1.1 EXECUTIVE SUMMARY

This Chapter summarizes the transportation analysis that has been prepared to evaluate the potential impacts on the local transportation network associated with the Final Master Plan Update (FMPU). The Chapter provides a discussion of Existing and No-Build conditions, the impacts from potential Raymond L. Flynn Marine Park Master Plan (RLFMP) (also referred to as the Park) integration and buildout, an evaluation of potential transportation infrastructure improvements, and a discussion of passenger and industrial traffic operations and its relationship with non-motorized travel. The analysis finds that:

- The Park accounts for 6.3 million of the 28.8 million square foot (22%) growth in development in the South Boston Waterfront between the Existing and Build condition
- Under the Build condition, development in the Park will represent only 16% of all development in the South Boston Waterfront
- Freight uses today occur off-cycle from peak network congestion
- Proposed infrastructure projects in and around the Park will maintain and improve freight access for commercial and industrial uses, particularly marine industrial uses
- Proposed infrastructure projects, potential new transit services, the ongoing parking freeze, and new development review policies from the City strongly support increases in travel by non-drive alone modes encouraged by Go Boston 2030, the City's long-range transportation plan
- The future travel network will support an efficient truck freight access and operations and ensure safe pedestrian, bicycle, and transit accessibility, both within the Park and throughout the South Boston Waterfront

The process carried out for this effort has been responsive and consistent with guidance from the Massachusetts Environmental Policy Act (MEPA) office, with the analysis process coordinated with MEPA stakeholders. The findings of this analysis and the mitigation detailed herein are consistent with citywide, regional, and statewide planning efforts undertaken by agencies such as the Boston Planning & Development Agency (BPDA), the Boston Transportation Department (BTD), the Massachusetts Port Authority (Massport), the Massachusetts Department of Transportation (MassDOT), and the Massachusetts Bay Transportation Authority (MBTA).

1.1 PURPOSE

The MEPA Certificate issued in February 2020 obligates the FMPU to address several issues raised by the Massachusetts Office of Coastal Zone Management (CZM) and the Massachusetts Department of Environmental Protection (MassDEP) in their review of the 2017 Draft Master Plan Update (DMPU).

Particular issues raised by CZM and MassDEP include:

- An analysis of potential transportation infrastructure improvements, including the Marine Park Gateway Improvement Project, Northern Avenue rotary signalization, and Fid Kennedy Avenue improvements;
- Identification of the impacts of potential buildout scenarios on transportation within the RLFMP and immediately surrounding areas (e.g. traffic circulation, parking, water transportation, transit routes, bicycle, and pedestrian routes) especially on existing truck routes, management/uses of roadways (e.g. road closures for events), and plans to convey rights-of-way within the RLFMP to the City of Boston or others;
- Identification of methods to avoid, minimize, and mitigate general industrial and commercial traffic, especially on truck routes, and to minimize potential conflicts between vehicular and non-vehicular traffic; and
- Consultation with issue-specific advocacy groups (e.g. Liveable Streets Alliance, MassBike, Seaport TMA, and WalkBoston), identification of opportunities and best practices to promote non-vehicular (e.g., pedestrian and bicycle) and mass transit within the RLFMP.

This Chapter demonstrates that the Full-Build project (defined in Land Use Assumptions), driven primarily by land use growth in the broader South Boston Waterfront, will see operational impacts on the vehicle travel network. However, where operational impacts persist, improvements for transit, freight, bicycle, and pedestrian users will support improved safe travel by these modes, in accordance with citywide long-range goals. As described in this Chapter, projects currently in the planning stages from BTD, MassDOT, the MBTA, and the Massport are anticipated to be in place prior to implementation of the full (FAR 4.0) Park buildout scenario, adding vehicle capacity to the roadway network over what is reflected in the No-Build network.

The Chapter includes an assessment of land use assumptions used to build modeling scenarios for Existing, No-Build, and Build conditions, consistent with the recent planning studies in the area. The Project is analyzed under a Build condition where development potential in the RLFMP has been maximized, as opposed to a traditional approach where a development project's individual impacts are isolated. This leads to a conservative analysis as:

- Background growth in the study area assumes full buildout of the South Boston Waterfront, regardless of whether this occurs in reality.
- No horizon year is cited, unlike traditional modeling approaches which does not factor in additional growth following project implementation.
- No allowance for growth in work from home activity is assumed despite potential long-term changes in travel activity stemming from the COVID-19 pandemic.

Buildout assumptions are based off of internal BPDA projections for development throughout the South Boston Waterfront and modified over time for use in the 2015 South Boston Waterfront Sustainable Transportation Plan and the ongoing South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study. Growth in peak period vehicle, transit, and bike/ped travel was projected for the South Boston Waterfront as a whole and applied to the No-Build condition; vehicle growth accessing the Park was projected separately for use in the Build condition.

Nine study area intersections were selected in consultation with MEPA which represent “gateway” intersections to the RLFMP. These include intersections which provide direct access to the Park, such as the Summer Street/Drydock Avenue/Pappas Way intersection, as well as intersections further north and east along Summer Street and Northern Avenue which feature only a small share of Park-generated traffic.

The City of Boston is committed to constructing or supporting, with agency partners, several long-term projects in the study area. In consultation with the MEPA office, these projects were included in the Mitigated Build condition to reflect the undefined timeframe by which they will be implemented. These projects include but are not limited to:

- **Haul Road/Summer Street/Drydock Avenue Connector** – a roadway connector between Haul Road, Summer Street and Drydock Avenue, providing more direct access to the Park from Haul Road, the Mass Pike, and I-93 and lessening dependence upon the Northern Avenue corridor inside and outside the Park.
- **Northern Avenue/Haul Road/Fid Kennedy Avenue Improvements** – signalization and reconfiguration of the Fid Kennedy approach to this intersection will facilitate truck access to marine industrial uses associated with the Massport Marine Terminal and improve safety for all modes.
- **E Street Connector** –north/south freight access through the South Boston Waterfront better emphasizes use of Haul Road as a freight corridor and removes heavy vehicles from the more densely-developed D Street, Summer Street and Northern Avenue corridors leading to the Park.
- **Northern Avenue Reconstruction** – improvements in walking and bicycling accommodations, along with better truck access to the Fid Kennedy Avenue corridor, reduces conflicts between freight and non-motorized users.

Freight operations are discussed in this Chapter. Data collected from recent development projects shows that truck activity peaks outside of the AM and PM peak vehicle travel periods. Anticipated improvements in access and operations to the study area travel network, as identified above, will allow for continued access to the RLFMP as marine industrial, general industrial and commercial uses grow into the future. Furthermore, shifting the majority of future travel to non-vehicular modes will limit peak hour impacts on freight operations.

A transit capacity analysis as well as bicycle and pedestrian level of traffic stress analyses were also conducted under No-Build conditions. Where impacts are anticipated in the No-Build and Build conditions, projects currently in the planning stage such as the Summer Street Bus/Truck Lanes and future projects identified for the Silver Line Capacity Study and as part of the South Boston Seaport Strategic Transit Plan are aimed at relieving existing transit capacity pinch points and improving access between the Park, the South Boston Waterfront, and the outlying area. Some multimodal projects are included in the No-Build while others may be present in a future condition with RLFMP growth:

- **Present in No-Build:**
 - Summer Street Bus/Truck Lanes
 - Seaport Circulator (a planned shuttle service operated by the Seaport Transportation Management Association [TMA][])
 - Extension of ferry service to a rehabilitated Pier 10 within the RLFMP
 - Nubian Square-RLFMP shuttle service proposed as part of mitigation for the 24 Drydock Avenue development project
- **Potential to be Present in Full-Build and Modeled as Mitigation:**
 - A North Station/South Station/Seaport direct bus link
 - Consolidation of private shuttles
 - Fleet expansion and/or bus platooning for SL1 and SL2 services

- Expanding local and regional ferry services
- **Additional Potential to be Present in Full-Build:**
 - South Station/Dorchester Avenue shuttle bus transfer upgrades
 - New bus service connections to the Park including Andrew Square via D Street and South Station via the Park
 - Installing transit signal priority or half-cycling the Transitway/D Street signal for SL1 and SL2 services, or eliminating this at-grade intersection
 - Installing transit signal priority and queue jump lanes at South Boston Waterfront intersections, where applicable
 - Extending transit service along Track 61 to the Park
 - New bus connection along A Street from Broadway Station

The parking freeze currently in place in the Park, newly-introduced bicycle parking guidelines, and forthcoming TDM guidelines will obligate future general industrial development projects in the Park to commit to robust programs which support multimodal travel by visitors. These efforts support citywide goals to facilitate nearly 75% of travel by non-driving modes in the future.

1.2 LAND USE ASSUMPTIONS

This section describes the land use assumptions which inform Existing, No-Build, and Build conditions in order to model Project-related impacts on the transportation network. The development assumptions have previously been used to inform the South Boston Waterfront Sustainable Transportation Plan, the South Boston Seaport Strategic Transit Plan, and the Silver Line Capacity Study. The BPDA utilizes a comprehensive development database which tracks existing, planned, and projected development throughout the South Boston Waterfront which was used to define full buildout projections for the South Boston Waterfront, including within the Park.

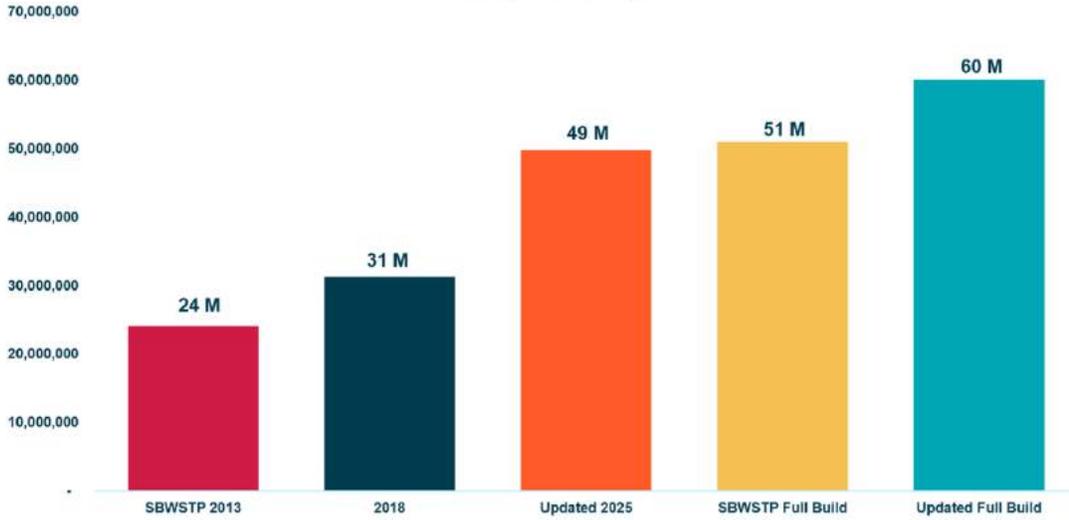
These land use assumptions reflect growth throughout the entirety of the South Boston Waterfront. When used to model travel impacts, they reflect a conservative condition whereby all developable land identified by the BPDA is developed to a maximum condition. This condition represents the full buildout, with no horizon year cited for the No-Build and Build condition, due to the undefined nature by which future development will come online.

1.2.1 Existing Condition

The BPDA keeps an active database of existing, under construction, BPDA board approved, planned (in the BPDA development pipeline), and projected (based on remaining developable space) development throughout the South Boston Waterfront. This development database is periodically updated for ongoing BPDA planning efforts; future development assumptions from this database were also used to inform analysis in the South Boston Waterfront Sustainable Transportation Plan, the South Boston Seaport Strategic Transit Plan and the Silver Line Capacity Study. An overview of these projections is shown in Figure 1 with a map of the South Boston Waterfront defined in Figure 2 below.

Build Out

Total Square Footage



Source: Silver Line Capacity Study



Figure 1: Projected development estimates for the South Boston Waterfront as reported for the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study

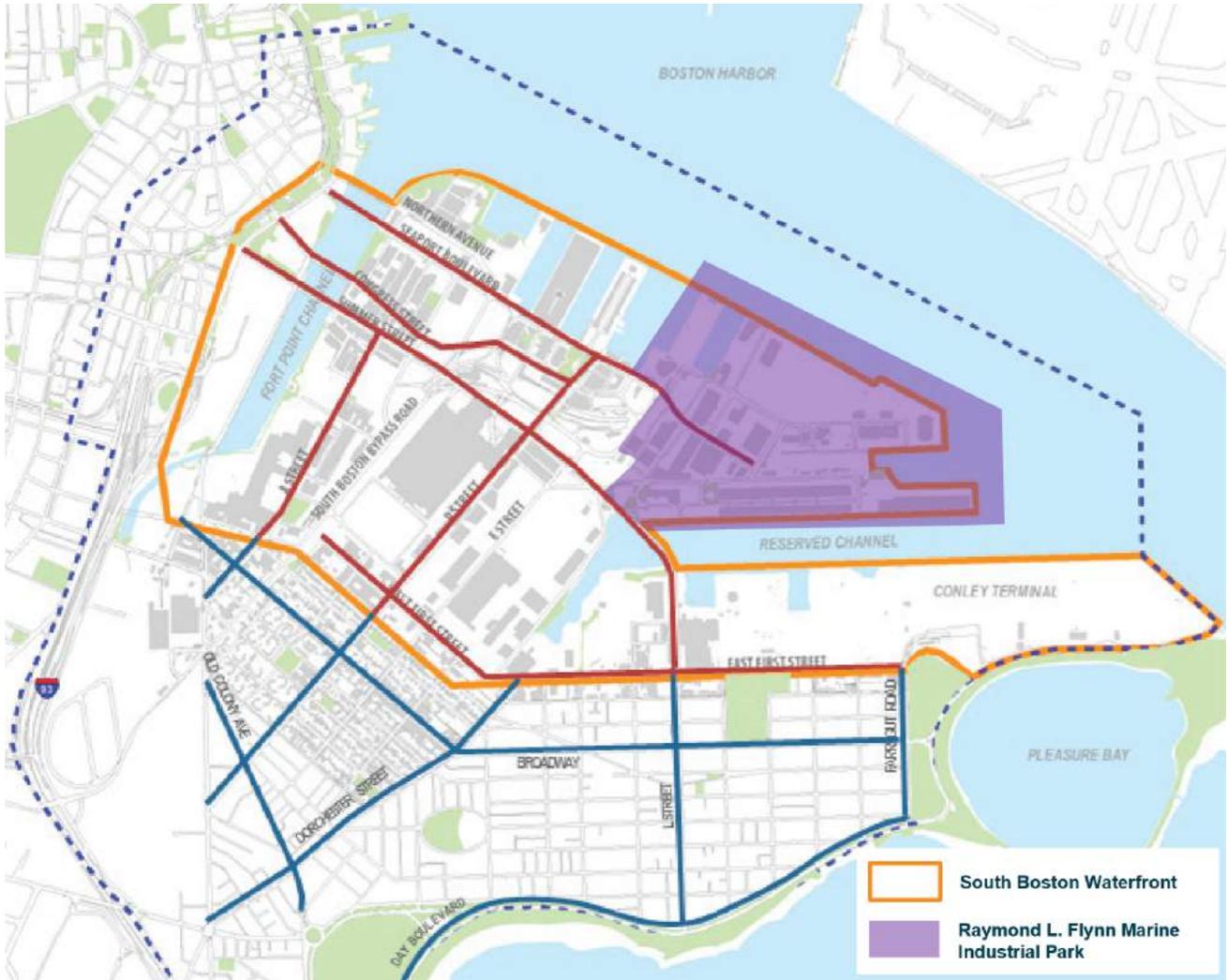


Figure 2: The South Boston Waterfront study area used for the South Boston Waterfront Sustainable Transportation Plan is reflected in an orange boundary.

As of the last comprehensive update of the development database in early 2018, there is **31,245,427 square feet** of development in the South Boston Waterfront. Of this figure, **3,388,950 square feet** of development is located within the RLFMP, approximately 11% of all South Boston Waterfront square footage.

1.2.2 No-Build Condition

The No-Build condition reflects growth in the broader South Boston Waterfront while excluding any anticipated growth in the Park. With the exception of removing Park-related growth, the methodology for creating the No-Build condition is consistent with that used for the South Boston Seaport Strategic Transit Plan and the Silver Line Capacity Study and other ongoing City and Commonwealth of Massachusetts planning processes.

For this effort, BPDA used its development database to isolate planned (constructed since 2018 and board approved) and projected growth in the RLFMP, removing these figures from full buildout conditions in the South Boston Waterfront.

Under the No-Build condition there is **53,729,163 square feet** of development reflected. Given that Park development remains constant in this scenario development in the Park decreases to approximately 6% of all development in the No-Build condition, a smaller percentage than represented under Existing conditions (11%).

It is important to note that the No-Build condition does not have a horizon year, unlike traditional analysis for development projects. As the No-Build reflects complete development of the South Boston Waterfront, it is impractical to project a future year by which this can be anticipated. In reality, the neighborhood may not ultimately absorb this level of development if economic conditions in the future shift; as such, development of the No-Build (and subsequently Build) scenarios represent a conservative estimate of travel network increases in the future.

1.2.3 Build Condition

Two Build condition scenarios were developed to reflect No-Build conditions with additional square footage added for RLFMP-related development. These scenarios are based on floor area ratios (FAR) of 2.0 and 4.0; FAR refers to the ratio of building area to a parcel's lot area. The Build scenario using a FAR of 4.0 buildout was used to model RLFMP growth on the travel network.

Table 1 below summarizes all assumptions present in the Build condition, including how the Existing and No-Build assumptions are summed into the Build condition:

Table 1: Build Condition Inputs

Condition	Square Foot Adjustment	Total Square Feet	Total RLFMP Square Feet	RLFMP as a % of all Development
Existing (2018)	+31.2M	31.2M	3.4M	~11%
No-Build	+22.5M	53.7M	3.4M	~6%
RLFMP Development Between 2018 and 2021	+0.4M	54.1M	3.8M	~7%
RLFMP Approved Development	+1.2M	55.3M	5M	~9%
Existing Square Footage Not Developed in Build	-0.1M	55.2M	4.8M	~9%
Build (FAR 2.0)	+2.7M	57.8M	7.5M	~13%
Build (FAR 4.0)	+4.8M	60M	9.7M	~16%

* Numbers may not add due to rounding

Build conditions were created based on the following adjustments to the No-Build network:

- RLFMP development between 2018 and 2021 – this reflects development which has come online since the last comprehensive update of the development database. This totals **370,461 square feet** of existing development as of January 2021.
- RLFMP approved development – this reflects anticipated future development which has received approval from the BPDA board. This totals **1,197,034 square feet** of anticipated future development as of January 2021.

- Land not developed in build condition – An adjustment of **121,048 square feet** was removed from the existing Park development to account for existing square footage that will be undeveloped under the Build condition. This includes adjustments due to potential infrastructure projects defined in the Roadway section, including the Haul Road/Summer Street/Drydock Avenue Connector, which will require land acquisition.
- Build (FAR 2.0) – this reflects potential future development under a full buildout of the Park with a FAR of 2.0. This totals **2,655,044 square feet** of potential full buildout development of the RLFMP under a FAR 2.0 scenario.
- Build (FAR 4.0) – this reflects potential future development under a full buildout of the Park with a FAR of 4.0. This totals **4,842,956 square feet** of potential full buildout development of the RLFMP under a FAR 4.0 scenario.

The Build condition under a FAR 4.0 scenario adds **6,289,403 square feet of development** to the South Boston Waterfront over No-Build conditions. Total development in the Build condition is **60,018,566 square feet**, a 12% increase in development over the No-Build condition.

Under the FAR 4.0 scenario, development (existing and projected) in the Park reflects 9,557,305 square feet of development in the South Boston Waterfront, or 16% of all development.

Table 2 defines existing and new square footage under the two Build scenarios, based on BPDA development database estimates by land use:

Table 2: Land Use Inputs of Build Condition Scenarios

Condition	Total Square Feet	Total RLFMP Square Feet	New RLFMP Square Feet	New Marine Industrial Square Feet	New R&D Square Feet	New Office Square Feet	New Retail Square Feet	New Hotel Square Feet
No-Build	53.7M	3.4M						
Build (FAR 2.0)	57.8M	7.5M	4M	1.3M	2.3M	0.2M	<0.1M	0.3M
Build (FAR 4.0)	60M	9.7M	6.3M	1.3M	4.5M	0.2M	<0.1M	0.3M

* Numbers may not add due to rounding

1.3 ROADWAY

Vehicle operations within and in the vicinity of the Park influence economic development and the ability to achieve full Park buildout, as defined in the previous section. Particularly as it relates to land uses reliant on freight, a reliable travel network will dictate the willingness of existing tenants to remain in the Park and future tenants to take tenancy. For industrial uses, work shifts which begin and end during transit off-peak hours further emphasize the importance of access to the Park by automobile.

Yet the City of Boston, and increasingly the Greater Boston region, have recognized that supporting driving activity as a means to bring about economic development has limited returns. The regional travel network is regularly congested during peak travel periods; there is limited ability to expand highway networks and the environmental effects of automobile use are exacerbating climate change. The Go Boston 2030 long-range transportation plan, released in 2016, recognizes this constraint for the City of

Boston. A goal of the plan is to halve driving activity by 2030 and increase use of transit, walking, and bicycling.

With the No-Build condition reflecting nearly double the existing amount of travel activity in the South Boston Waterfront before accounting for RLFMP development, facilitating all future travel to the Park by private automobile is not practical. The City's ongoing efforts to support transit usage, through infrastructure projects such as the Summer Street Bus/Truck Lanes and planning studies such as the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study, aim to proactively address significant increases in travel activity by transit. Other sections of this Chapter detail parking restrictions, bicycle and pedestrian planning and network improvements, and transportation demand management (TDM) efforts to further reduce driving as a means to access the Park.

This section defines existing conditions and anticipated future roadway operations in the study area. Nine intersections were identified to carry out individual intersection capacity analysis in coordination with MEPA:

- Northern Avenue/Tide Street/Drydock Avenue;
- Northern Avenue/Haul Road/Fid Kennedy Avenue;
- Northern Avenue/Seaport Boulevard/D Street;
- Summer Street/Drydock Avenue/Pappas Way;
- Summer Street/Fargo Street;
- Summer Street/Pumphouse Road;
- Haul Road/Pumphouse Road;
- Summer Street/D Street; and
- Massachusetts Turnpike Exit 25 Off-Ramp/Haul Road.

The study area intersections are displayed in Figure 3 below, with the Park boundary outlined in yellow:

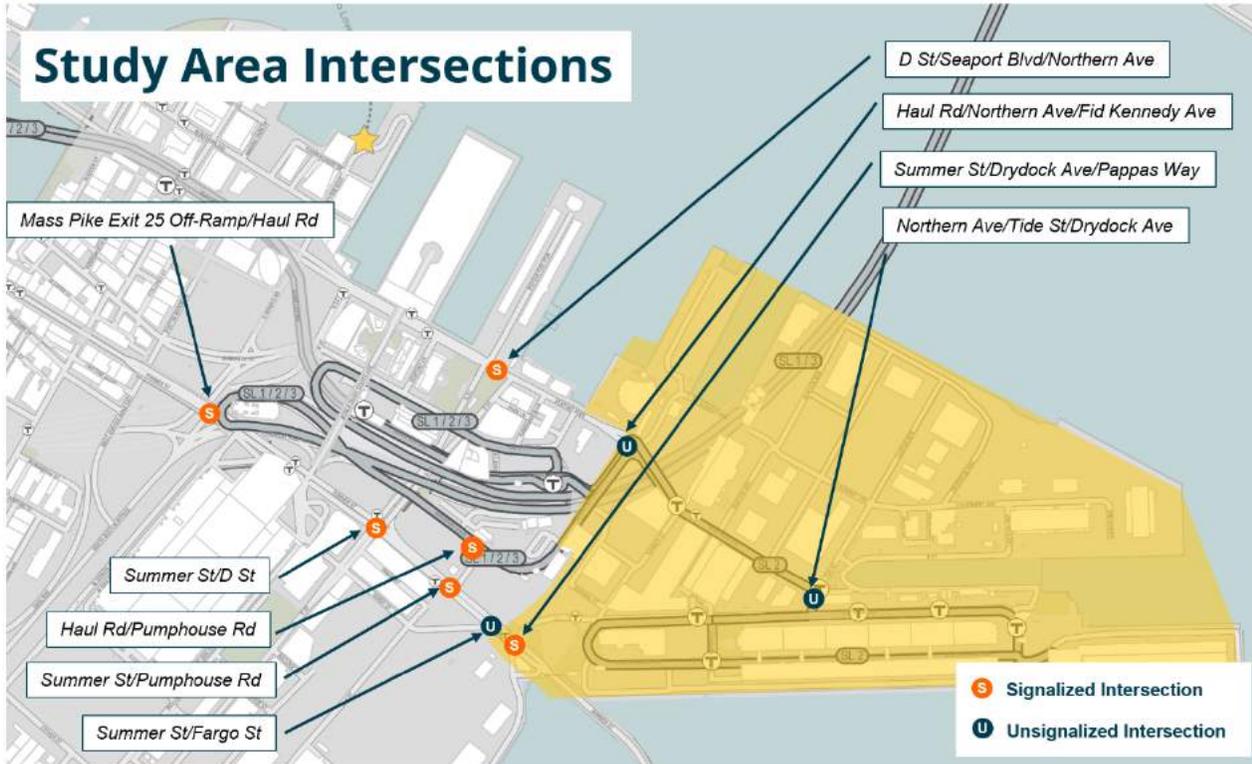


Figure 3: Study Area Intersections

1.3.1 Existing Conditions

Study Area Intersections

Vehicular traffic accessing the RLFMP can do so via the regional highway network (Mass Pike and I-93) or local streets from the west and south; in each case vehicles must travel through the broader South Boston Waterfront area to reach the Park. The study area intersections selected for this effort encompass those which generally provide access to the Park; these include intersections providing direct access (such as Summer Street/Drydock Avenue/Pappas Way) and those accessed by a subset of vehicle traffic coming to/from the RLFMP (such as Summer Street/D Street).

This section is aimed at evaluating broader transportation conditions in the South Boston Waterfront of which the RLFMP provides a limited impact. Presently, the RLFMP accounts for 11% of all development in the South Boston Waterfront. When analyzing existing and future roadway operations in the study area, a smaller subset of vehicle traffic accessing select intersections further away from the Park will be destined to/from the Park. As such, although the methodology of this report assumes an even distribution of future No-Build traffic impacts across the study area and the South Boston Waterfront as a whole, impacts at intersections closer to the Park may not be as adversely impacted.

Northern Avenue/Tide Street/Drydock Avenue

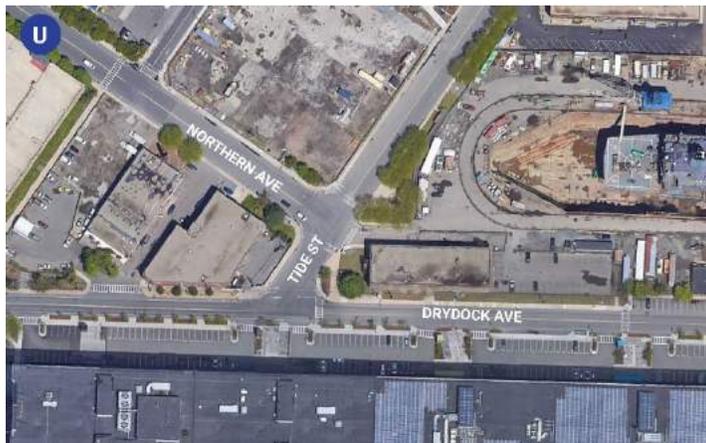


Figure 4: Tide Street at Northern Avenue and Drydock Avenue (Left)

The intersection of Northern Avenue, Tide Street, and Drydock Avenue operates in two segments. The Northern Avenue/Tide Street intersection operates as a three-leg unsignalized intersection with the entrance to Dry Dock Plaza Park operating as a fourth leg opposite Northern Avenue. Traffic is bi-directional on all approaches, with crosswalks and sidewalks present on all approaches. Crosswalk markings and paving materials have largely faded.

The Tide Street/Drydock Avenue intersection operates as a three-leg unsignalized intersection with an entrance to the 27 Drydock Avenue property serving as a fourth leg opposite Tide Street, although a large median makes the eastern entrance slightly offset from the rest of the intersection. Traffic is bi-directional on all approaches, with crosswalks present on all but the westbound Drydock Avenue approach and sidewalks present on all approaches, including each entrance to 27 Drydock Avenue. Crosswalk markings and paving materials have largely faded on the Tide Street and Drydock Avenue eastbound approaches.

The two intersections are separated by less than 100 feet of roadway along Tide Street.

Northern Avenue/Fid Kennedy Avenue/Haul Road



Figure 5: Northern Avenue at Haul Road and Fid Kennedy Avenue (Left)

The intersection of Northern Avenue, Haul Road, and Fid Kennedy Avenue is a roundabout. Traffic is bi-directional on all approaches; with the exception of the Fid Kennedy Avenue approach all approaches feature raised medians to funnel traffic entering and exiting the roundabout. Pavement markings are present on the Northern Avenue westbound approach, the Haul Road northbound approach entering the roundabout, and the Northern Avenue eastbound approach exiting the roundabout to reduce travel lane widths. Crosswalks and

sidewalks are present on all approaches.

Northern Avenue/Seaport Boulevard/D Street

Figure 6: Northern Avenue / Seaport Boulevard at D Street (Right)

The intersection of Northern Avenue, Seaport Boulevard, and D Street operates in two segments. The Northern Avenue/D Street intersection operates as a three-leg signalized intersection. Traffic is bi-directional on the Northern Avenue approaches, with two through lanes in each direction, and one-way northbound entering the intersection on the D Street approach with one travel lane each signifying right and left turn lanes. A no turn on red restriction is in place for the D Street approach.



Crosswalks are present on the Northern Avenue eastbound and D Street approaches, with sidewalks present on all approaches. Sharrows are present on the Northern Avenue approaches with a bike lane separating the two travel lanes on the D Street approach.

The Northern Avenue/Seaport Boulevard/D Street intersection operates as a three-leg signalized intersection with the entrance to Boston Fish Pier serving as a fourth leg opposite D Street. Traffic is bi-directional on all approaches except for the D Street approach, which is one-way southbound exiting the intersection. A left/through and through/right travel lane are provided on the Northern Avenue and Seaport Boulevard approaches, whereas the Boston Fish Pier approach features a painted median to provide one lane of travel in each direction. A no turn on red restriction is in place for the Seaport Boulevard approach.

Crosswalks are present on the Northern Avenue eastbound and D Street approaches, with sidewalks present on all approaches. Sharrows are present on the Northern Avenue approaches with a bike lane on the right-hand side of the D Street approach.

The two intersections are separated by approximately 100 feet of roadway along Northern Street.

Summer Street/Drydock Avenue/Pappas Way



Figure 7: Drydock Avenue and Pappas Way at Summer Street (Left)

The intersection of Summer Street, Drydock Avenue, and Pappas Way is signalized. Traffic is bi-directional on all approaches. The Summer Street approaches feature raised medians; a left-turn lane, through lane, and through/right-turn lane in each direction. The Drydock Avenue approach features a left-turn lane and through/right-turn lane, also separated from opposing travel by a raised median. The Pappas Way approach is bi-directional with one travel lane in each direction.

Crosswalks are present on all approaches, with sidewalks present on all approaches except for the northeast corner of Summer Street and Drydock Avenue, which is currently being used for construction. Pavement markings have faded along each approach. A bike lane is present for Summer Street eastbound travel; a bike lane for westbound travel approaching the intersection has been converted to pedestrian use due to construction impacts on Parcel A. Sharrows are present on Summer Street westbound exiting the intersection.

Summer Street/Fargo Street

Figure 8: Fargo Street at Summer Street (Right)

The intersection of Summer Street and Fargo Street is unsignalized. Traffic is bi-directional on all approaches, with Summer Street featuring three travel lanes in each direction (a dedicated left-turn lane for Summer Street eastbound makes up one of the travel lanes) and Fargo Street featuring a single travel lane. A faded crosswalk is present along the Fargo Street approach; pedestrians must use the Summer Street/Drydock Avenue/Pappas Way intersection to cross Summer Street. Sidewalks are not present along Fargo Street. A bike lane is present along Summer Street eastbound with sharrows present along Summer Street westbound.



Fargo Street meets Summer Street at an angle less than 90 degrees, which encourages Fargo Street eastbound traffic to continue eastbound on Summer Street and creates sharp turning movements from Summer Street eastbound onto Fargo Street and from Fargo Street onto Summer Street westbound.

Summer Street/Pumphouse Road

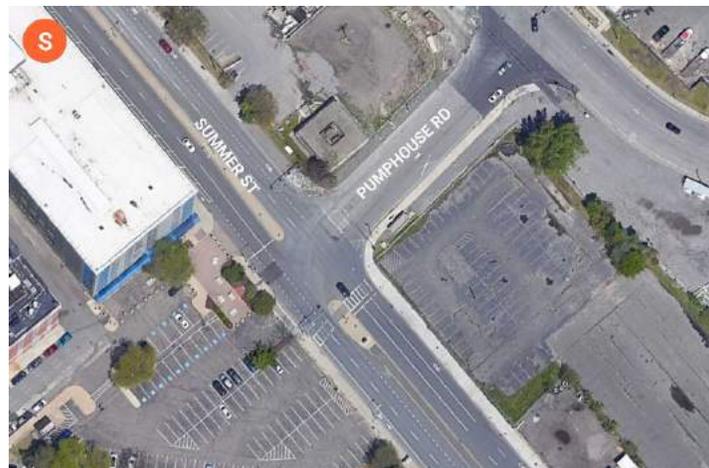


Figure 9: Pumphouse Road at Summer Street (Left)

The intersection of Summer Street and Pumphouse Road is signalized. Traffic is bi-directional on all approaches, with Summer Street featuring a through and through/right-turn lane in the westbound direction and a through and through/left-turn lane in the eastbound direction. The Pumphouse Road approach features two travel lanes in each direction, with the southbound approach entering the intersection with a dedicated left-turn lane and a left-turn/right-turn lane.

Crosswalks are present along the Summer Street eastern leg and the Pumphouse Road approach, although they are faded at this location. Pumphouse Road does not feature sidewalks in the southbound direction. A bike lane is present along Summer Street eastbound with sharrows present along Summer Street westbound.

Haul Road/Pumphouse Road

Figure 10: Pumphouse Road at Haul Road (Right)

The intersection of Haul Road and Pumphouse Road is signalized. Traffic is bi-directional on all approaches with two travel lanes, although pavement markings have significantly faded along all Haul Road approaches except for the eastbound approach entering the intersection. A dedicated right-turn lane is present along the Haul Road eastbound approach entering the intersection, a dedicated left-turn lane is present along the Haul Road westbound approach entering the intersection, and the Pumphouse Road approach entering the intersection is designed for a dedicated left-turn lane and a left-turn/right-turn lane.



Crosswalks are present along the Haul Road eastern approach but are significantly faded. Pumphouse Road does not feature sidewalks in the southbound direction and Haul Road does not feature sidewalks in the eastbound direction on either approach. Rail tracks (Track 61) run across the Pumphouse Road approach within the intersection.

Summer Street/D Street

Figure 11: D Street at Summer Street (Right)

The intersection of Summer Street and D Street is signalized. Traffic is bi-directional on all approaches. The Summer Street approaches feature raised medians; in the westbound direction a right-turn slip lane, a through lane, and a through/left-turn lane are provided and in the eastbound direction a left-turn lane, a through lane, and a through/right-turn lane are provided. The slip lane features a raised refuge island for pedestrians. The D Street approaches also feature raised medians; in the southbound direction a left-turn lane, a through/left-turn lane, and a through/right-turn lane are provided and in the northbound direction a left-turn lane, a through lane, and a through/right-turn lane are provided.



Crosswalks are present on all approaches, with sidewalks present on all approaches except for the northwest corner of Summer Street and D Street, which is currently being used for construction. Pavement markings are faded along the Summer Street eastbound approach. Bike lanes are present along the D Street southbound approach entering and exiting the intersection as well as on the northbound approach exiting the intersection; sharrows are present along the Summer Street westbound approach and D Street southbound approach entering the intersection. A bike box facilitates D Street northbound travel to turn left and transition towards Summer Street westbound travel.

Mass Pike Exit 25 Off-Ramp/Haul Road

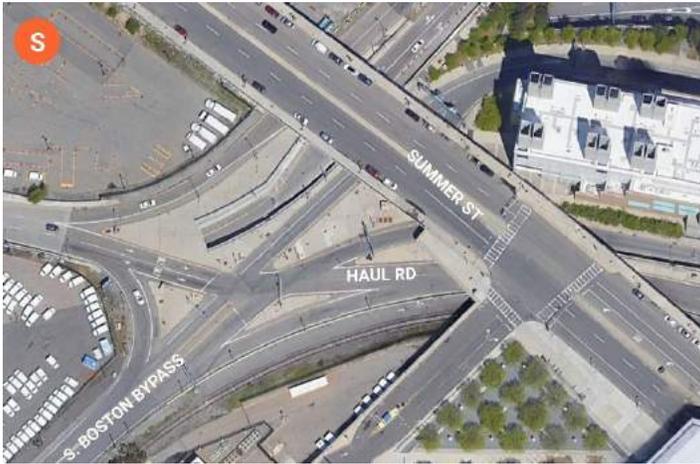


Figure 12: Mass Pike Exit 25 Off-Ramp at Haul Road (Left)

The intersection of the Mass Pike Exit 25 Off-Ramp and Haul Road is signalized. Traffic is one-way eastbound towards Haul Road from the Mass Pike Exit 25 Off-Ramp, with two dedicated through lanes and a right-turn slip lane for southbound Haul Road travel. The Haul Road northbound approach features a thru lane for traffic destined for eastbound travel on the Mass Pike with a slip lane for continuing travel along Haul Road westbound. The Haul Road eastbound approach features a thru lane for traffic destined towards Haul Road southbound and a left-turn slip lane for traffic destined towards eastbound travel on the

Mass Pike. An earlier diverge on Haul Road allows for access to westbound Mass Pike travel.

There are no crosswalks or sidewalks present at this location.

Management/Use of Roadways

Study area roadways are under the jurisdiction of the BTM, MassDOT, and Massport. Figure 13 below shows this jurisdiction; all roadways within the Park are under the jurisdiction of BPDA/Economic Development and Industrial Corporation of Boston (EDIC) while roadways outside the Park are considered under BTM jurisdiction unless otherwise noted.

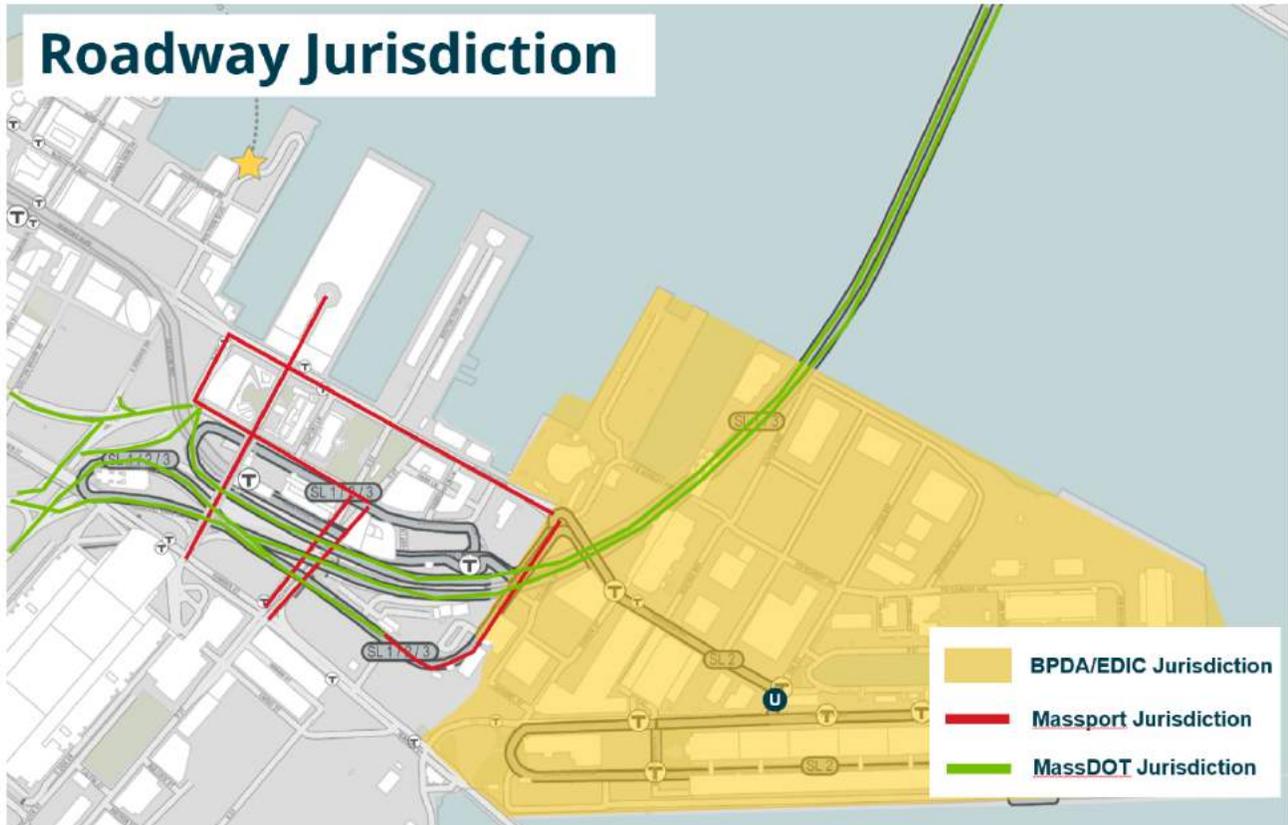


Figure 13: Jurisdiction of study area roadways

Special events within and in the vicinity of the Park occur, commonly associated with the Leader Bank Pavilion, Flynn Cruiseport Terminal, and Harpoon Brewery. Mode share for travel to/from the Leader Bank Terminal is not available; data provided by Massport indicated that half of all trips for a cruise’s homeport (where the majority of passengers board and supplies are loaded) are taken by pick-up/drop-off, whereas 70% of trips for a cruise’s port of call are taken by bus or transit.¹

When events occur during peak travel periods, ready access to the Leader Bank Pavilion and Flynn Cruiseport Terminal by multimodal resources are available; the Freight section discusses how trucks tend to avoid peak period travel to avoid general commuting impacts. Many special events occur outside of peak travel periods, including weekend events at the Leader Bank Pavilion and Harpoon Brewery. For morning commute impacts associated with the Flynn Cruiseport Terminal and evening commute impacts associated the Leader Bank Pavilion, impacts can be expected to be limited to one of the Park’s two gateway intersections.

Vehicle Capacity Analysis

In compliance with MassDOT, MEPA, and City of Boston protocols, Synchro software was used to analyze the performance of the roadway network under Existing, No-Build, and Build conditions. Synchro provides a reasonable estimation of operating characteristics which are easily comparable between different scenarios. The Synchro network was provided by BTM and updated to represent more recent traffic data at study area intersections.

¹ VHB Massport Haul Road/Drydock Avenue Study

To perform Existing conditions analysis, traffic volumes for the AM and PM peak hours were obtained from the sources below. Signal timings used for the Existing conditions were pulled from the timings used for these development projects. The Existing condition was modeled as 2020; an annual growth rate of 0.5% was applied to each set of counts to reflect 2020 conditions.

- The MassDOT South Boston Bypass Road Pilot Project conducted counts at the Mass Pike Exit 25 Off-Ramp/Haul Road intersection in 2019.
- 2 Harbor Street Project Notification Form submitted by ICCNE LLC, which conducted counts at the following study area intersections in 2019:
 - Haul Road/Northern Avenue/Fid Kennedy Avenue
 - Seaport Boulevard/Northern Avenue/D Street
 - Summer Street/Drydock Avenue/Pappas Way
 - Summer Street/Pumphouse Road
- Massport Marine Terminal Parcel 6 Project Notification Form submitted by Pilot Seaport Properties III LLC, which conducted counts at the following study area intersections in 2018:
 - Tide Street/Drydock Street/Northern Avenue
- Summer Street Hotel Notice of Project Change submitted by OH NBH Owner LLC, which conducted counts at the following study area intersections in 2016:
 - Summer Street/D Street
- E Street Self Storage Facility Project Notification Form submitted by 920 Development LLC, which conducted counts at the following study area intersections in 2011:
 - Summer Street/Fargo Street

No adjustments were made to reflect network conditions resulting from the COVID-19 pandemic in order to present a conservative analysis; the figures below were all conducted prior to the pandemic.

Intersection operating conditions are classified by a quantified level-of-service (LOS). LOS is a qualitative measure of control delay at an intersection providing an index to the operational qualities of a roadway or intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS D is typically considered acceptable in a downtown, urban environment. LOS E indicates that vehicles experience significant delay and queuing, while LOS F suggests unacceptable delays for the average vehicle. LOS designation is reported differently for signalized and unsignalized intersections. Longer delays at signalized intersections than at unsignalized intersections are perceived as acceptable.

For signalized intersections, the analysis considers the operations of each lane or lane group entering the intersection and the LOS designation is for the overall conditions at the intersection. For unsignalized intersections, however, this analysis assumes the traffic on the main street is not affected by traffic on the side streets. The LOS is only determined for left turns from the main street and all movements from the minor street. This analysis is based on Highway Capacity Manual (HCM) 6th Edition methodology; Table 3 and Table 4 below presents the LOS delay threshold criteria as defined in the HCM.

Table 3: Level-of-Service Criteria at Signalized Intersections

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	≤1.0	>1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

Table 4: Level-of-Service Criteria at Unsignalized Intersections

Control Delay (s/veh)	LOS
≤10	A
>10-15	B
>15-25	C
>25-35	D
>35-50	E
>50	F

All Synchro outputs can be found in the Appendix.

Most counts at study area intersections showed an observed AM peak of 8:00 AM to 9:00 AM; the Mass Pike Exit 25 Off-Ramp/Haul Road intersection showed this slightly later at 8:30 AM. to 9:30 AM. In the afternoon, peaks fell between 4:45 PM and 6:15 PM at study area intersections.

Existing Conditions Operational Analysis

As Table 3 and Table 4 show, vehicle traffic under the Existing condition operates at an acceptable level at all study area intersections, as well as for most intersection approaches.

The two gateway intersections entering the Park operate at an acceptable level for all intersection approaches with the exception of the Pappas Way approach in the AM peak hour and the left/through approach of the Drydock Avenue approach in the PM peak hour of the Summer Street/Drydock Avenue/Pappas Way intersection.

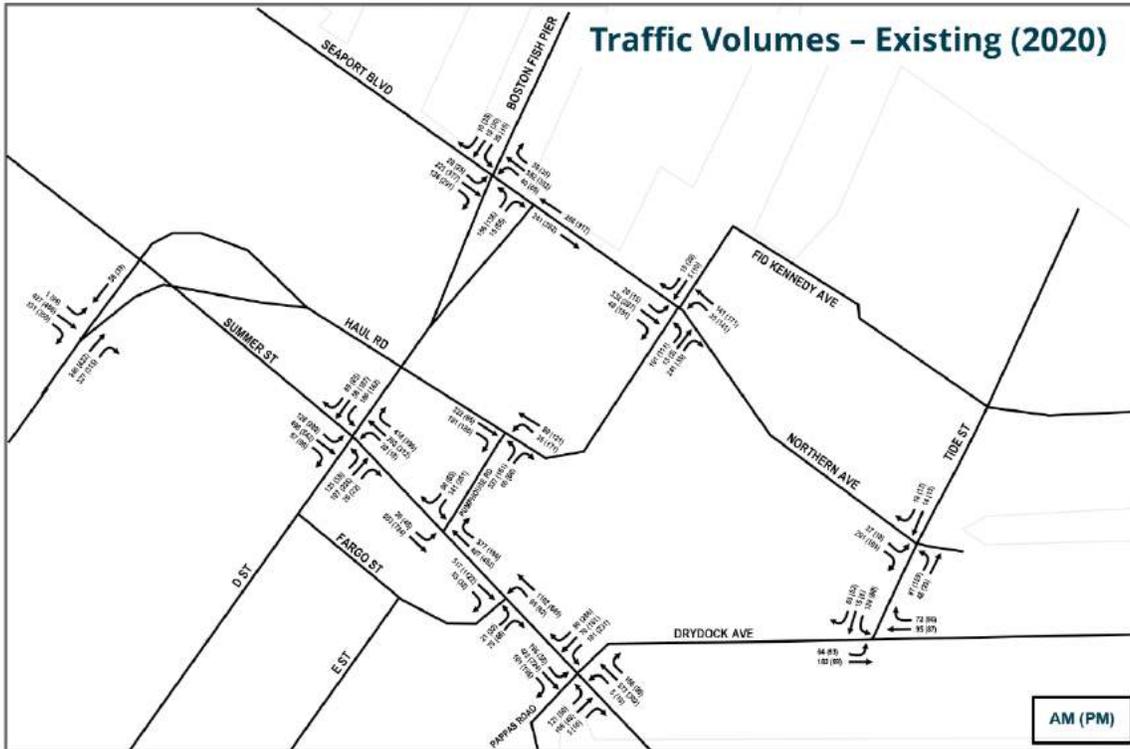


Figure 14: Traffic volumes under Existing Conditions

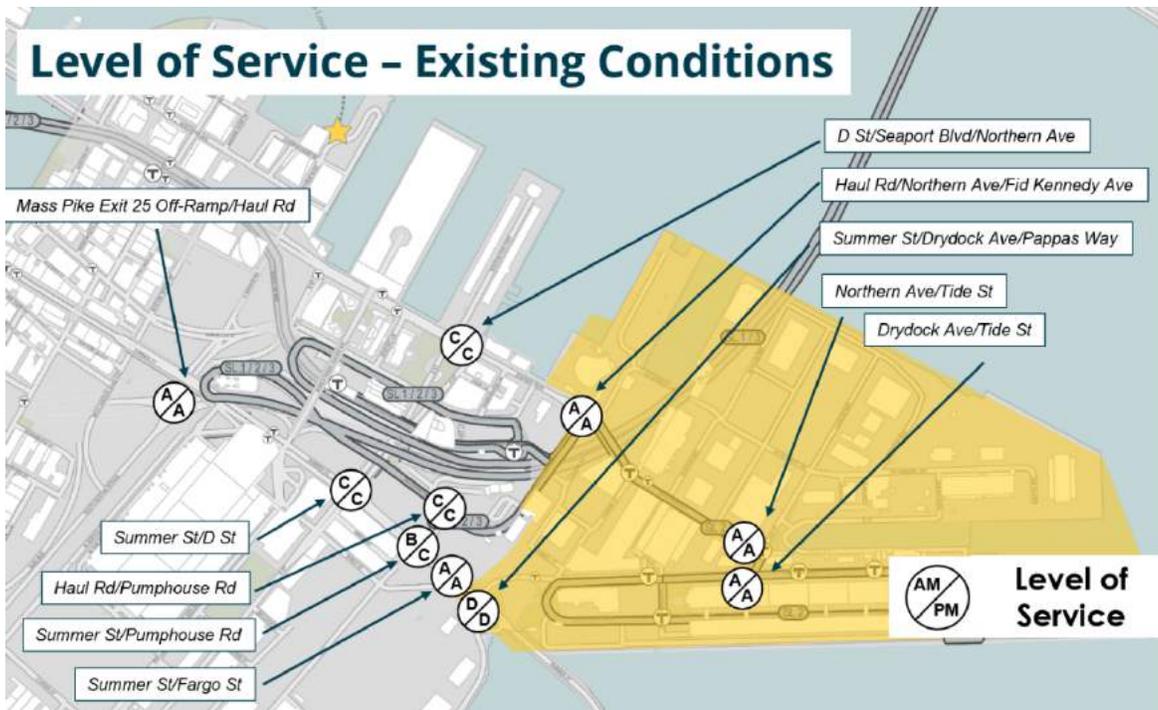


Figure 15: Level-of-service analyses for Existing Conditions

Table 5: Existing Conditions on Existing Roadway Network Analysis – Signalized Intersections

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
Northern Avenue/Seaport Boulevard/D Street/Boston Fish Pier										
Northern Ave WB-LTR	B	18.7	0.45	73	146	B	16.3	0.37	87	164
Boston Fish Pier SB-LTR	D	42.7	0.31	23	51	D	42.6	0.32	30	65
Seaport Blvd EB-LTR	C	29.0	0.54	111	172	B	19.2	0.55	157	282
D Street NB LT	D	36.6	0.52	94	161	D	35.5	0.41	80	140
D Street NB R	C	32.8	0.05	8	27	C	34.0	0.42	37	76
OVERALL	C	26.5	0.46			C	21.9	0.46		
Summer Street/Drydock Avenue/Pappas Way										
Summer St EB-L	D	37.4	0.78	36	145	C	23.3	0.15	28	58
Summer St EB-TR	A	6.8	0.41	52	63	C	29.2	0.72	324	409
Drydock Ave SB-LT	E	69.0	0.89	171	259	E	67.3	0.95	294	403
Drydock Ave SB-R	C	22.4	0.11	0	26	B	14.3	0.20	0	41
Summer St WB-L	C	28.0	0.12	3	14	D	41.7	0.17	7	26
Summer St WB-TR	D	40.0	0.83	267	339	D	43.3	0.58	143	200
Pappas Way NB-LTR	F	>100	>1.00	239	401	C	29.3	0.37	56	109
OVERALL	D	47.5	0.80			D	36.6	0.70		
Summer Street/Pumphouse Road										
Summer St WB-TR	B	15.6	0.37	26	147	C	27.4	0.44	135	178
Pumphouse Road SB-LR	D	46.3	0.51	52	91	D	52.5	0.77	110	155
Summer St EB-TR	B	13.4	0.39	154	224	C	21.1	0.72	162	366
OVERALL	B	19.1	0.34			C	29.1	0.61		
Haul Road/Pumphouse Road										
Haul Road WB-L	C	22.2	0.42	15	63	A	2.5	0.19	22	55
Haul Road WB-T	B	18.9	0.11	24	57	A	2.3	0.09	14	37
Haul Road EB-T	D	41.6	0.85	166	285	A	2.2	0.06	10	27
Haul Road EB-R	C	22.0	0.13	0	44	A	2.3	0.13	0	18
Pumphouse Road NB-L	D	40.8	0.84	169	283	D	48.7	0.78	83	135
Pumphouse Road NB-R	C	22.7	0.04	0	28	C	30.6	0.04	0	30
Overall	C	34.6	0.68			B	14.0	0.27		
Summer Street/D Street										
Summer St WB-R	B	18.3	0.49	195	225	A	9.9	0.47	77	101
Summer St WB-T	D	47.7	0.77	243	385	C	22.2	0.61	89	120
Summer St WB-L	C	34.5	0.20	17	44	B	16.6	0.16	5	12

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
D St SB-L	D	35.3	0.36	76	137	D	36.1	0.40	85	150
D St SB-TR	C	34.2	0.25	42	78	C	35.0	0.30	56	95
Summer St EB-L	C	27.9	0.57	59	103	C	33.7	0.70	95	168
Summer St EB-TR	C	28.0	0.52	145	196	C	26.9	0.55	167	222
D St NB-L	D	35.1	0.34	77	134	C	35.0	0.17	34	71
D St NB-TR	C	33.6	0.18	33	61	D	36.6	0.36	82	123
OVERALL	C	31.4	0.57			C	26.3	0.56		
Mass Pike Exit 25 Off-Ramp/Haul Road										
Haul Road SB-LT	B	12.1	0.13	12	27	A	5.2	0.05	5	20
Mass Pike Off-Ramp EB-L	B	11.6	0.00	0	2	B	11.5	0.20	19	37
Mass Pike Off-Ramp EB-T	B	13.6	0.49	51	67	B	12.8	0.50	55	74
Mass Pike Off-Ramp EB-R	B	12.5	0.23	0	37	B	11.7	0.24	0	36
Haul Road NB-T	A	5.3	0.26	29	79	A	7.0	0.48	66	158
Haul Road NB-R	A	5.5	0.29	11	55	A	6.1	0.30	17	64
OVERALL	A	9.9	0.35			A	9.7	0.49		

Table 6: Existing Conditions on Existing Roadway Network Analysis – Unsignalized Intersections

	AM Peak Hour				PM Peak Hour			
	LOS	Delay (s/veh)	v/c	95 th Queue (feet)	LOS	Delay (s/veh)	v/c	95 th Queue (feet)
Drydock Avenue/Tide Street (unsignalized)								
Drydock Ave WB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Tide St SB-TR	B	14.4	0.37	5	B	11.6	0.18	18
Drydock Ave EB-TL	A	2.0	0.05	43	A	4.5	0.07	5
OVERALL	A	5.5			A	4.5		
Northern Avenue/Tide Street (unsignalized)								
Drydock Plaza Dr WB-LTR	A	7.7	0.00	0	A	7.0	0.00	0
Tide St SB-LTR	A	7.5	0.04	3	A	7.3	0.03	3
Northern Ave EB-LTR	A	8.4	0.28	28	A	7.5	0.14	13
Tide St NB-LTR	A	8.7	0.19	18	A	8.8	0.25	25
OVERALL	A	8.4			A	8.2		
Summer Street/Fargo Street (unsignalized)								
Summer St WB-LT	A	1.5	0.11	10	A	2.1	0.16	15
Summer St EB-T	A	0.0	0.00	0	A	0.0	0.00	0
Fargo St NB-LR	C	19.3	0.30	30	F	53.2	0.55	70
OVERALL	A	2.0			A	2.9		
Northern Avenue/Haul Road/Fid Kennedy Avenue (unsignalized)								
Northern Avenue EB LTR	A	5.8	0.33	25	A	9.1	0.53	75
Northern Avenue WB LTR	A	4.5	0.17	25	A	5.8	0.29	25
Haul Road NB LTR	A	5.7	0.18	25	A	6.1	0.18	25
Fid Kennedy Avenue SB LTR	A	3.8	0.03	0	A	4.6	0.05	0
OVERALL	A	5.4			A	7.6		

1.3.2 Future No-Build Travel Assumptions

For the No-Build travel network, trip generation tied to new development was reflected as a growth factor of existing volumes at study area intersections. This was accomplished by assigning growth in trips under No-Build conditions as a similar percentage of the growth in square footage between the Existing and No-Build condition. Trip growth was then assigned to individual modes of transportation in accordance with target mode shares addressed in the Go Boston 2030 long-range transportation plan.

This methodology is meant to strike a balance between:

- A precedent for driving observed in existing conditions; as cited in the South Boston Seaport Strategic Transit Plan driving trips make up 54% of AM commute (6:00 AM to 9:00 AM) mode share; and
- A target mode share to emphasize non-driving trips for future trips, using mode shares defined in Go Boston 2030.

Go Boston 2030's target drive alone share is roughly 20%, with an additional 5% commuting via carpool. As such, 25% of future trips in the travel network (the difference between Existing and No-Build trips, or approximately 13,100 AM commute trips) were assigned to driving with the remaining 75% assigned to transit, walking, and bicycling.

Increases in traffic volumes were applied uniformly to all intersections and intersection approaches; thus traffic volumes for all movements on study area intersections were grown by 33% to reflect the No-Build condition.

Note that intersections within and around the Park may not be accessed at similar rates by commuters traveling to/from the South Boston Waterfront from outlying areas, including from the regional highway network, so they may not grow at a similar rate as those elsewhere in the South Boston Waterfront. Additionally, as discussed in the Land Use Assumptions section, all potential buildout in the South Boston Waterfront is reflected in the No-Build condition.

Table 7 below demonstrates this methodology:

Table 7: Growth in Driving Trips in the No-Build Condition

Condition	Square Feet	Total AM Commute Trips	AM Commute Driving Trips	AM Commute Driving Mode Share	Notes
Existing (2018)	31.2M	18,200	9,800	54%	2018 data cited for the South Boston Seaport Strategic Transit Plan
Projected New (excluding RLFMP)	22.5M	13,100	3,275	25%	Mode share target defined for driving by Go Boston 2030
No-Build	53.7M (+72%)	31,300 (+72%)	13,075 (+33%)	42%	33% growth in vehicle traffic between Existing and No-Build condition

* Numbers may not add due to rounding

Infrastructure projects with a firm funding commitment from the agency that has jurisdiction or identified as having a definitive plan for implementation by BPDA were incorporated into the analysis. As these projects are anticipated to be in place well before full buildout of the South Boston Waterfront and will occur regardless of future growth within the Park, they are included in the No-Build condition as a reflection of the background conditions to assess Park growth impacts.

No-Build Infrastructure Improvements

Impacts on intersection geometries as well as non-motorized facilities such as bicycle/pedestrian accommodations, transit infrastructure are called out below for inclusion in the No-Build network.

Northern Avenue between Tide Street and Haul Road/Fid Kennedy Avenue

The Northern Avenue Reconstruction project will define two 12-foot travel lanes and provide six-foot separated bicycle lanes along the length of the corridor, with raised crossings at intersections. This project completed 100% design in October 2020 and has been funded for construction by starting in 2021.

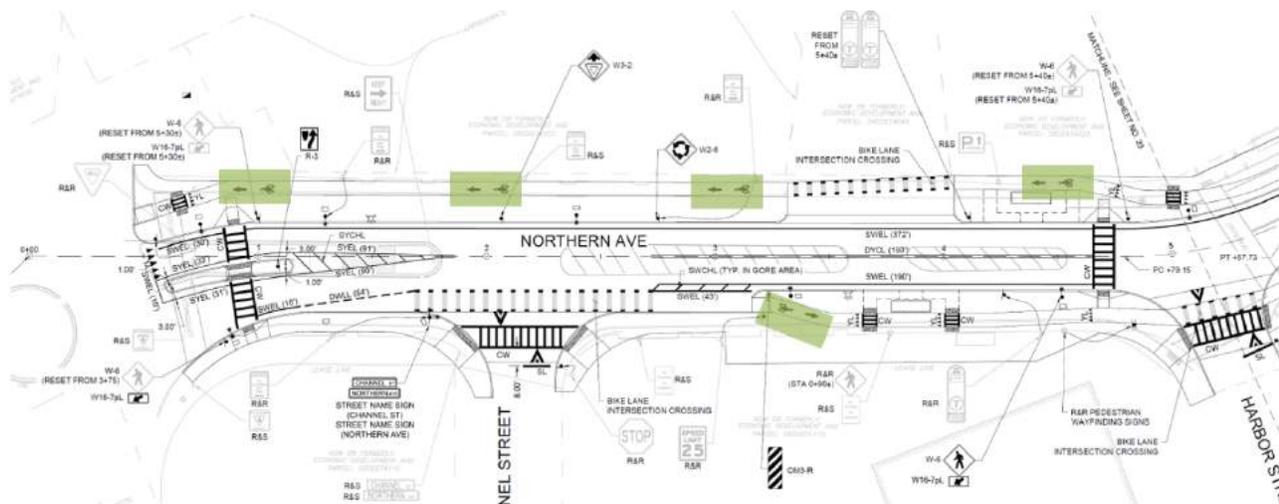


Figure 16: A reconstructed Northern Avenue between Tide Street and Haul Road/Fid Kennedy Avenue will feature dedicated bicycle facilities, pulling bike/ped traffic from the more industrial-oriented Fid Kennedy Avenue (source: BPDA)

Northern Avenue/Tide Street/Drydock Avenue Intersection

Pavement markings, including crosswalks, will be repainted as part of the Northern Avenue Reconstruction project.

Summer Street/Drydock Avenue/Pappas Way Intersection

Bus/truck lanes will be installed in the eastbound and westbound direction along Summer Street as part of the Summer Street Bus/Truck Lanes project. This improvement will leave a through and through/left-turn lane in the westbound direction. A through/right-turn lane will be shared with the bus/truck lane for the eastbound approach, along with a dedicated left-turn lane.

A concept design for the Summer Street Bus/Truck Lanes project was advanced in May 2020. The City is in the process of determining design details, securing funding for the installation, and in the process of conducting community outreach for the project. Negotiations with Massport in summer 2020 determined that the future project should allow for freight use of future transit lanes.

Summer Street/Fargo Street Intersection

Bus/truck lanes will be installed in the eastbound and westbound direction along Summer Street as part of the Summer Street Bus/Truck Lanes project.

Summer Street/Pumphouse Road Intersection

Bus/truck lanes will be installed in the eastbound and westbound direction along Summer Street as part of the Summer Street Bus/Truck Lanes project. This improvement will leave a through and a through/right-turn lane in the westbound direction and a through/left-turn lane in the eastbound direction.

Summer Street/D Street Intersection

Bus/truck lanes will be installed in the eastbound and westbound direction along Summer Street as part of the Summer Street Bus/Truck Lanes project. This improvement will leave right-turn, through (shared with the bus/truck lane), and left-turn lane in the westbound direction and a through/right-turn and left-turn lane in the eastbound direction.

No-Build Operational Analysis

As would be expected with such significant growth in background traffic, many intersections and intersection approaches operate in a deficient condition in the No-Build condition. It should be emphasized that the No-Build network reflects complete buildout of the South Boston Waterfront. Unlike many operational analyses for development projects, no horizon year is cited for this analysis as the No-Build and Build years are meant to reflect an undefined future condition where complete buildout has been achieved. Additionally, no growth in work from home behavior is estimated.

This analysis can be considered conservative given the long-term timeframe (potentially several decades) required to achieve full buildout in addition to traffic growth under the No-Build condition being less likely to impact intersections closer to the Park given that this condition does not account for RLFMP growth.

The loss of vehicle capacity along Summer Street associated with the Summer Street Bus/Truck Lanes affects operations at each of these intersections. However, this loss of vehicle capacity will be counteracted by the improved bus operations for services using the Summer Street corridor. Freight travel will benefit from use of these lanes as well.

As discussed elsewhere in this Chapter, the Summer Street Bus/Truck Lanes project, anticipated independent from Park buildout, is consistent with an emphasis on non-vehicular commuting to and from the Park. The project is particularly notable to preserving truck access amidst deteriorating vehicle operations in the No-Build condition, regardless of the level of industrial or non-industrial growth in the Park.

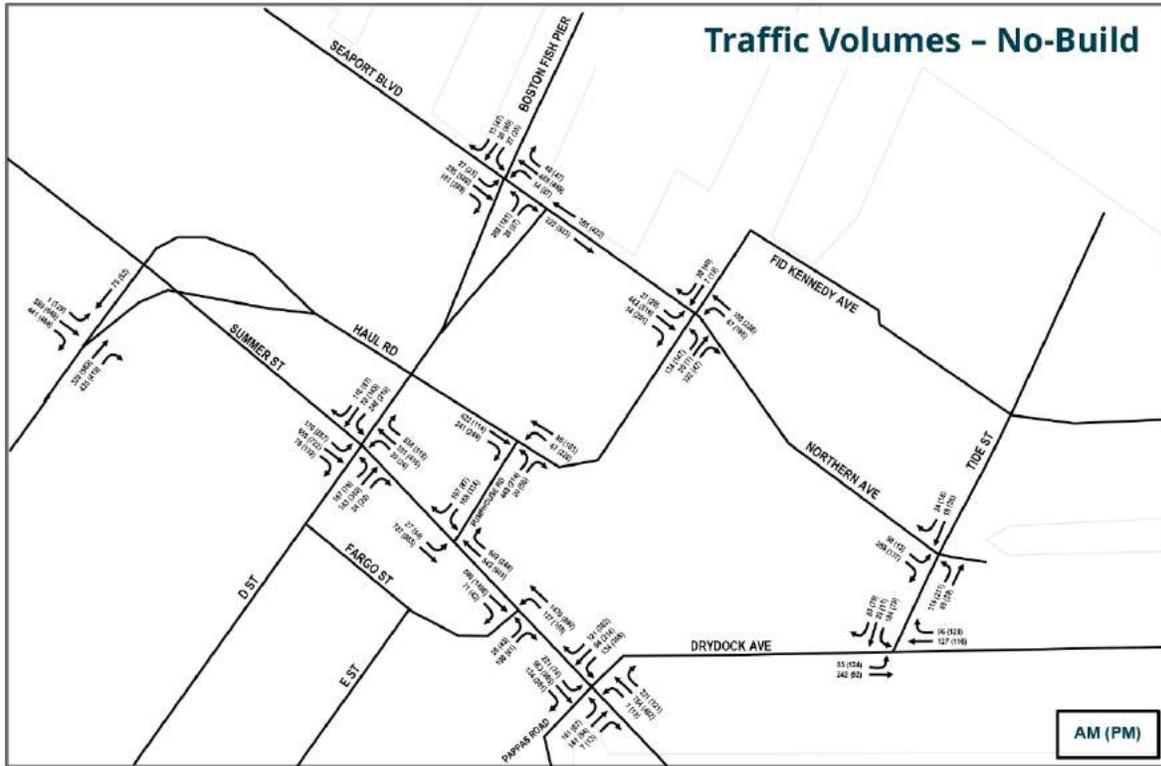


Figure 17: Traffic volumes under No-Build Conditions

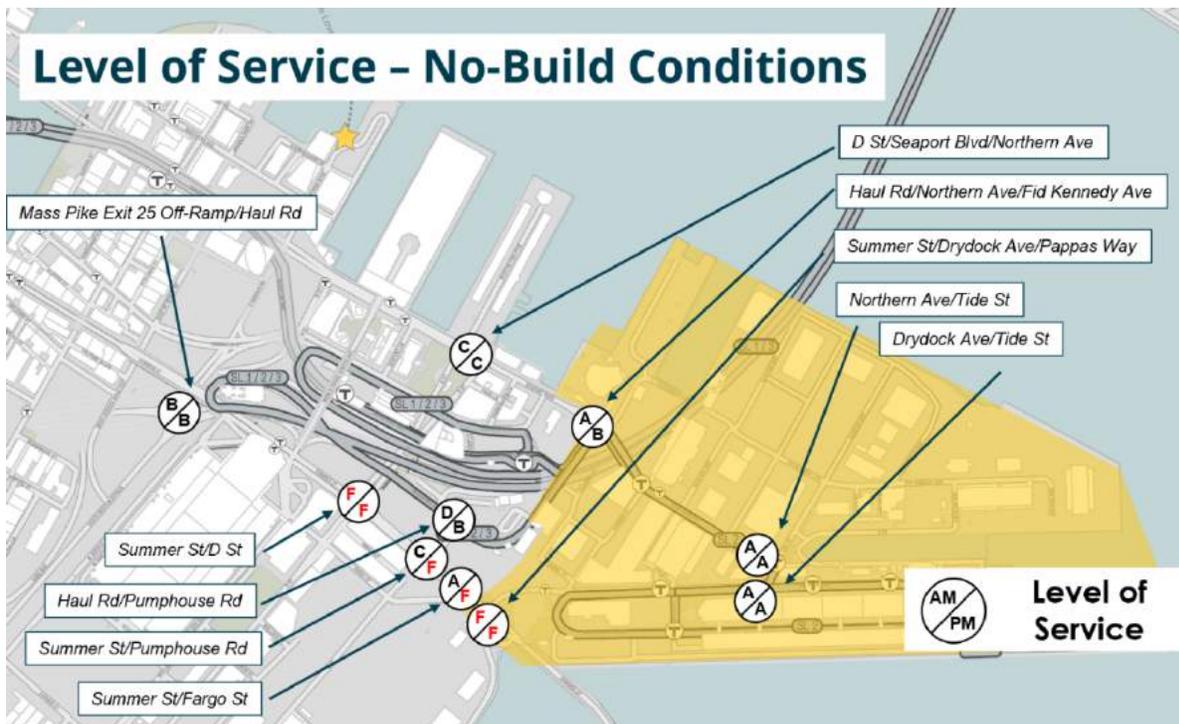


Figure 18: Level-of-service analyses under No-Build Conditions

Table 8: Future No-Build Conditions on No-Build Roadway Network Analysis – Signalized Intersections

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
Northern Avenue/Seaport Boulevard/D Street/Boston Fish Pier										
Northern Ave WB-LTR	C	21.3	0.61	108	255	C	22.5	0.62	138	254
Boston Fish Pier SB-LTR	D	43.2	0.41	32	65	D	41.4	0.40	48	88
Seaport Blvd EB-LTR	D	42.8	0.82	172	270	C	27.1	0.79	249	470
D Street NB LT	D	42.6	0.69	131	227	D	37.2	0.55	111	182
D Street NB R	C	32.9	0.07	11	32	C	34.6	0.29	50	97
OVERALL	C	33.6	0.66			C	27.8	0.63		
Summer Street/Drydock Avenue/Pappas Way										
Summer St EB-L	F	>100	>1.00	163	235	C	28.1	0.23	38	73
Summer St EB-TR	C	33.4	0.93	380	388	F	>100	>1.0	1511	1776
Drydock Ave SB-LT	F	88.2	0.97	208	367	F	>100	>1.0	520	734
Drydock Ave SB-R	C	22.2	0.09	0	42	B	12.1	0.27	0	46
Summer St WB-LT/TR	F	>100	>1.00	537	673	F	>100	>1.0	301	416
Pappas Way NB-LTR	F	>100	>1.00	381	564	C	33.6	0.65	89	199
OVERALL	F	>100	>1.00			F	>100	>1.0		
Summer Street/Pumphouse Road										
Summer St WB-TR	B	15.6	0.74	84	164	E	59.5	0.98	456	590
Pumphouse Road SB-L/LR	D	50.2	0.69	82	132	E	63.0	0.90	157	248
Summer St EB-LT	C	32.9	0.98	606	692	F	>100	>1.0	1415	*135 5
OVERALL	C	26.7	0.76			F	>100	>1.0		
<i>*Metered by upstream signal</i>										
Haul Road/Pumphouse Road										
Haul Road WB-L	C	32.9	0.56	23	66	A	4.3	0.28	37	89
Haul Road WB-T	C	26.3	0.24	37	71	A	3.8	0.13	23	56
Haul Road EB-T	D	50.3	0.94	236	429	A	3.7	0.10	16	41
Haul Road EB-R	B	19.1	0.17	0	50	A	3.9	0.17	0	24
Pumphouse Road NB-L	D	44.6	0.90	224	431	D	35.3	0.70	110	110
Pumphouse Road NB-R	B	19.4	0.06	0	32	C	26.5	0.06	0	32
Overall	D	38.9	0.83			B	12.1	0.37		
Summer Street/D Street										
Summer St WB-R	C	24.3	0.66	284	408	B	18.1	0.67	175	319
Summer St WB-T	D	46.5	0.76	235	379	D	47.3	0.87	231	464

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
Summer St WB-L	E	79.4	0.68	25	54	D	53.0	0.50	12	28
D St SB-L	D	43.0	0.70	167	257	D	40.6	0.64	151	233
D St SB-TR	C	33.1	0.18	23	54	C	34.2	0.27	47	82
Summer St EB-L	D	42.1	0.76	82	177	C	24.1	0.13	10	28
Summer St EB-T/TR	F	>100	>1.00	643	895	F	>100	>1.0	932	1202
D St NB-L	D	36.3	0.46	107	177	D	35.7	0.25	51	96
D St NB-TR	C	34.3	0.26	48	81	D	37.8	0.49	115	163
OVERALL	F	84.5	0.92			F	>100	>1.0		
Mass Pike Exit 25 Off-Ramp/Haul Road										
Haul Road SB-LT	B	10.7	0.15	15	32	A	6.5	0.07	8	24
Mass Pike Off-Ramp EB-L	B	10.2	0.00	0	2	B	10.1	0.23	22	47
Mass Pike Off-Ramp EB-T	B	12.7	0.55	64	87	B	12.0	0.57	67	101
Mass Pike Off-Ramp EB-R	B	11.4	0.31	0	41	B	10.6	0.33	0	42
Haul Road NB-T	A	6.9	0.38	49	113	B	11.8	0.72	121	282
Haul Road NB-R	A	7.7	0.51	47	135	A	8.9	0.54	58	138
OVERALL	B	10.1	0.53			B	10.8	0.65		

Table 9: Future No-Build Conditions on No-Build Roadway Network Analysis – Unsignalized Intersections

	AM Peak Hour				PM Peak Hour			
	LOS	Delay (s/veh)	v/c	95 th Queue (feet)	LOS	Delay (s/veh)	v/c	95 th Queue (feet)
Drydock Avenue/Tide Street (unsignalized)								
Drydock Ave WB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Tide St SB-TR	C	22.6	0.60	95	B	13.9	0.29	30
Drydock Ave EB-TL	A	2.1	0.07	5	A	4.6	0.10	8
OVERALL	A	8.2			A	5.0		
Northern Avenue/Tide Street (unsignalized)								
Drydock Plaza Dr WB-LTR	A	8.0	0.00	0	A	7.2	0.00	0
Tide St SB-LTR	A	7.9	0.06	5	A	7.5	0.05	5
Northern Ave EB-LTR	A	9.6	0.39	48	A	8.1	0.19	18
Tide St NB-LTR	A	9.6	0.27	28	A	9.7	0.34	38
OVERALL	A	9.5			A	9.0		
Summer Street/Fargo Street (unsignalized)								
Summer St WB-LT/T	A	4.9	0.17	15	A	6.1	0.31	33
Summer St EB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Fargo St NB-LR	C	19.0	0.35	40	F	>100	>1.0	345
OVERALL	A	4.1			F	71.2		
Northern Avenue/Haul Road/Fid Kennedy Avenue (unsignalized)								
Northern Avenue EB LTR	A	7.3	0.45	50	C	15.8	0.74	175
Northern Avenue WB LTR	A	5.4	0.24	25	A	7.5	0.41	50
Haul Road NB LTR	C	15.5	0.65	125	A	8.3	0.29	25
Fid Kennedy Avenue SB LTR	A	4.3	0.04	0	A	5.7	0.08	1
OVERALL	A	9.9			B	11.9		

1.3.3 Future Build Travel Assumptions

Build Operational Methodology

Build condition volumes were developed to evaluate the transportation impact of Park growth and on the broader South Boston Waterfront roadway network. The Build volumes are calculated by estimating Park-generated traffic volume growth and distributing the volumes in the study area based on observed vehicle travel data on the roadway network. The traffic volumes expected to be generated by Park growth were added to No-Build volumes to create the Build volumes on the future roadway network.

Two Build analyses were conducted; this section concerns the impact of FAR 2.0 growth in the Park on the No-Build roadway network. The Mitigated Build section concerns FAR 4.0 growth in the Park with proposed roadway infrastructure projects incorporated.

To estimate overall Project generated trips, the analysis followed BTM's methodology of converting unadjusted Institute for Transportation Engineers (ITE) Trips to person trips and then assigning those by mode and geography to determine the expected volumes to be generated by Park growth in a FAR 2.0 scenario.

Unadjusted ITE Vehicle Trips

The *ITE Trip Generation Manual, 10th Edition* provides trip generation rates and formula for each of the land uses present in the FAR 2.0 scenario, which were applied to the square footage or rooms provided.

To create a more realistic estimation of trip generation with marine industrial use, the Massport Marine Terminal (MMT) Parcel 6 Project Notification Form filed in February 2018 was queried. This project proposes the construction of a 115,000 square foot seafood processing facility with an on-site retail operation and labor union meeting space.

Referencing data collected at the existing Boston Sword and Tuna facility adjacent to the site (Boston Sword and Tuna is the proposed user of the Parcel 6 space) daily trip generation, AM peak hour, and PM peak hour rates were estimated for marine industrial uses in the Park. The peak hour trips represent traffic which is primarily truck-oriented, with some employee and ancillary trips.

Peak hour rates generally run lower than for other land uses for marine industrial uses, reflecting the off-peak nature of employee travel associated with marine industrial uses.

The MMT Parcel 5 Notice of Project Change filed in November 2016 was also queried but temporal data necessary for this analysis was not included as part of the submission.

The FAR 2.0 program and unadjusted trip generation for the Park is described in Table 10. This program includes all development which has come online in the Park since 2018 (the year cited for the Existing Conditions analysis) as well as all approved development as of this report's publication.

Table 10: Unadjusted Trip Generation – FAR 2.0

Land Use	Square Feet/Rooms	Person Trips
Research & Development	2,323,557	30,873
Marine Industrial	1,262,690	9,066
Hotel	316,500 (411 rooms)	3,436
Office	211,700	2,433
Retail	21,900	1,505
Commercial	7,200	522
TOTAL	6,331,851	47,384

Mode Share

Person trips were then separated into modes. To keep consistent with the No-Build methodology and reflect City of Boston long-term transportation visioning, Go Boston 2030 mode share targets (25% driving, 50% transit, and 25% walking/biking) were applied to each land use with the exception of marine industrial, where all trips were estimated to be by private automobile. Citing only vehicle trips for marine industrial uses ensures that trucks are accurately reflected as part of marine industrial growth in line with existing truck figures observed in the study area.

Table 11: Mode Share – FAR 2.0

Land Use	Person Trips	Auto Person Trips	Transit Trips	Walk/Bike Trips
Research & Development	30,873	7,718	15,436	7,718
Marine Industrial	9,066	9,066	0	0
Hotel	3,436	859	1,718	859
Office	2,433	608	1,217	608
Retail	1,505	356	752	356
Commercial	522	130	261	130
TOTAL	47,384	18,758	19,384	9,692

Project-Generated Vehicle Trips

Auto person trips were then converted to vehicle trips by reverting the average vehicle occupancy factors which had been applied to the unadjusted trip rates. Table 12 summarizes the adjusted vehicle trips generated by the FAR 2.0 growth by land use, citing in and out data referenced for each land use by ITE and empirical data for marine industrial uses. Vehicle occupancy rates by land use were inputted into the unadjusted totals to create the adjusted vehicle trip figures.

Table 12: Project Generated Vehicle Trips – FAR 2.0

Project Generated Vehicle Trips							
	Daily	AM Peak			PM Peak		
	TOTAL	TOTAL	IN	OUT	TOTAL	IN	OUT
Research & Development	6,541	244	183	61	285	43	242
Marine Industrial	9,066	455	233	222	341	165	176
Hotel	859	69	41	28	91	47	45
Office	515	61	53	9	61	10	51
Retail	207	5	3	2	21	10	11
Commercial	72	2	1	1	7	3	4
TOTAL	17,260	836	514	322	806	278	528

Trip Distribution

As trips generated by Park growth have several means of accessing the Park, trip distribution for FAR 2.0 trips was estimated based on existing travel distributions between the Summer Street/Drydock Avenue/Pappas Way and Northern Avenue/Haul Road/Fid Kennedy Avenue gateway intersections. These distributions were obtained for the AM and PM peak hours in June 2019 as part of the data collection efforts for the 2 Harbor Street PNF.

Table 13: Trip Distribution by Gateway Intersection – RLFMP Growth

Intersection	AM Enter %	AM Exit %	PM Enter %	PM Exit %
Summer Street/Drydock Avenue/Pappas Way	42%	56%	28%	67%
Northern Avenue/Haul Road/Fid Kennedy Avenue	58%	44%	72%	33%

Figure 19 shows new traffic volumes generated by FAR 2.0 growth. Figure 20 and Figure 21 show the trip distribution of FAR 2.0 generated trips on the existing roadway network which flow from the percentages defined for the two gateway intersections.

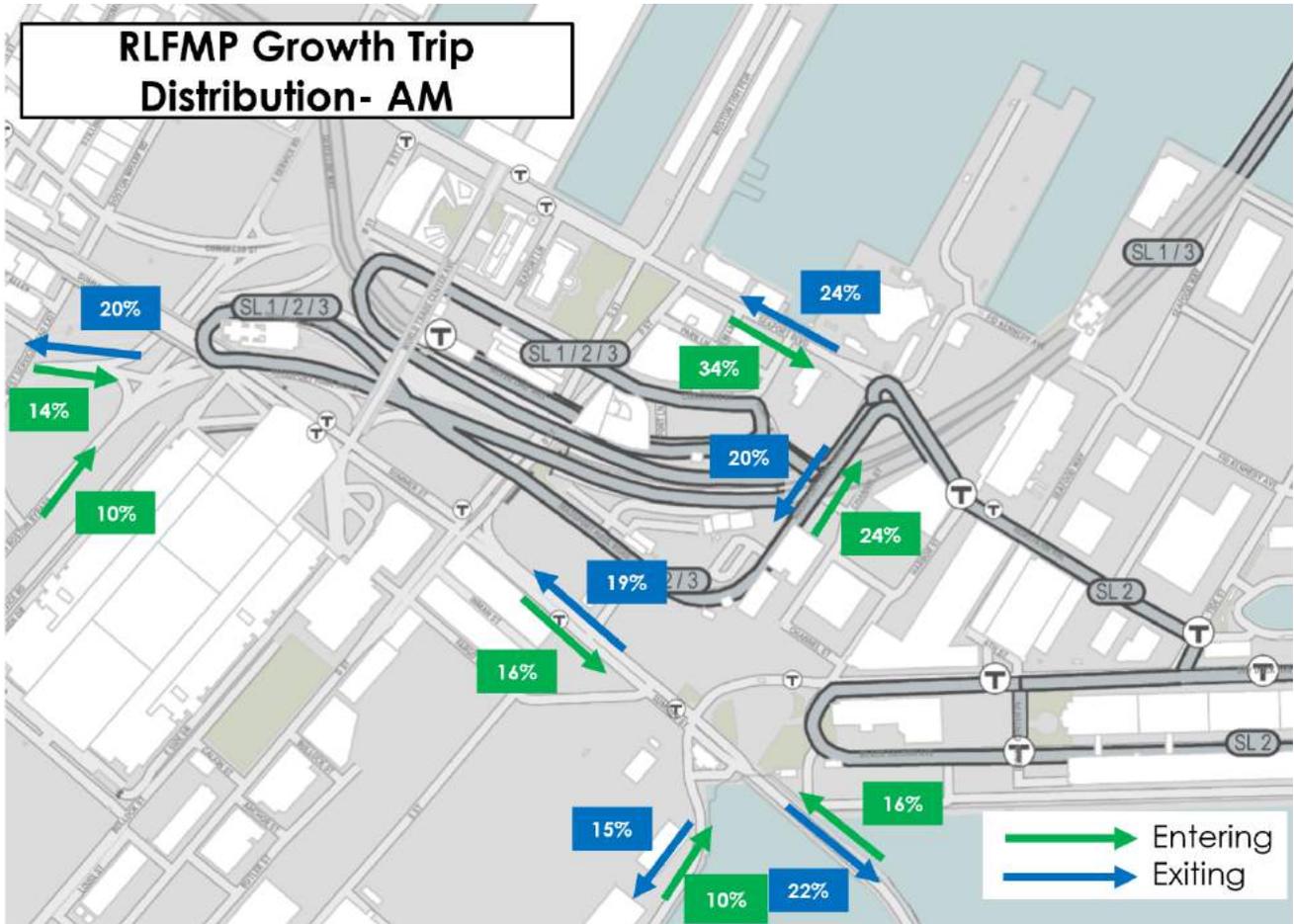


Figure 20: AM trip distribution for RLFMP growth

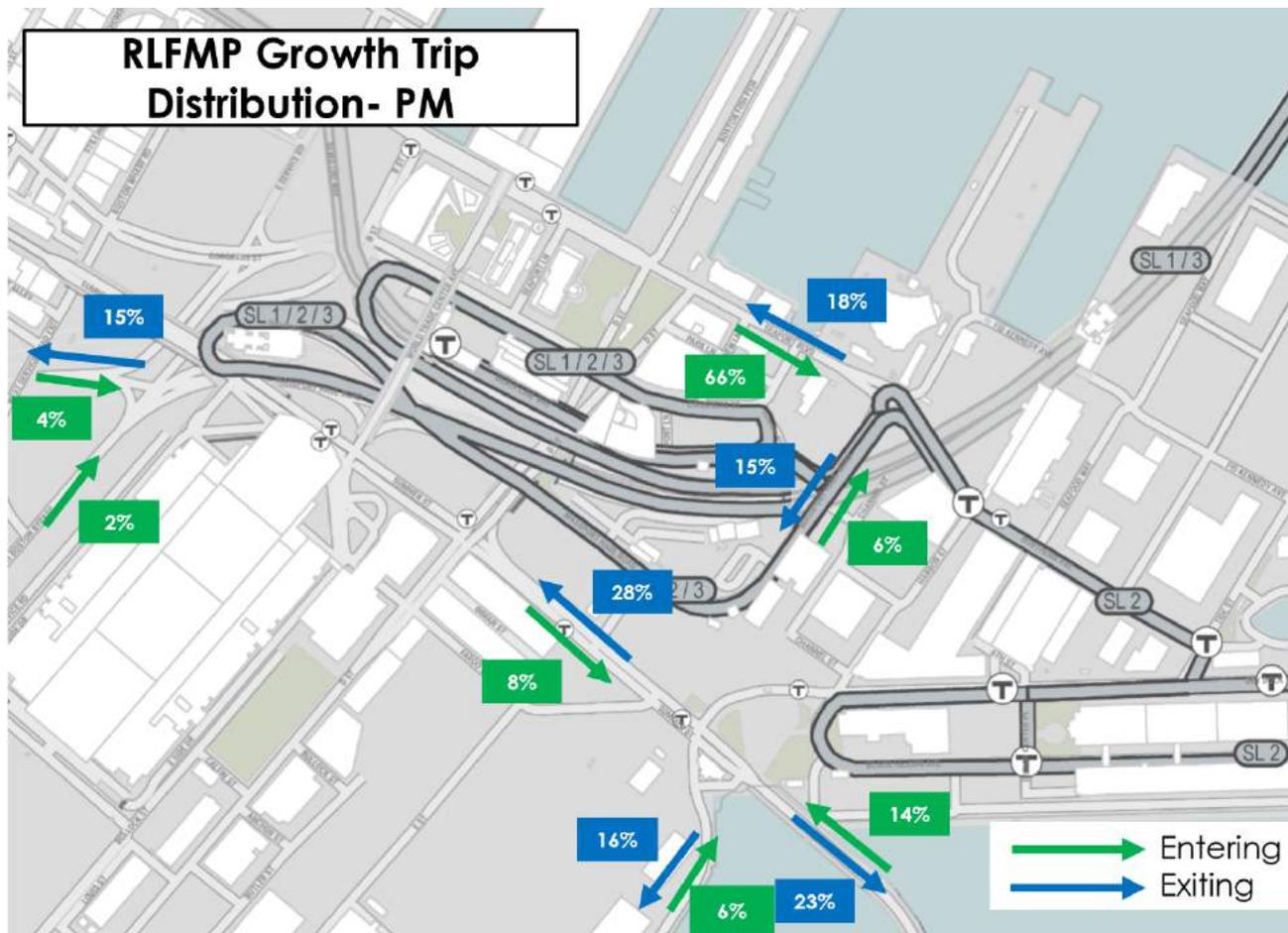


Figure 21: PM trip distribution for RLFMP growth

Build Operational Analysis

The addition of FAR 2.0 growth-generated trips to the study area network is observed to deteriorate conditions at the Northern Ave/Haul Road/Fid Kennedy Avenue and D Street/Seaport Boulevard/Northern Avenue intersections. This is due to the reliance on Northern Avenue in providing access to and from the Park under current travel patterns, which the FAR 2.0 growth network is based on.

As discussed in the Land Use section, Park buildout under FAR 2.0 represents only 13% of all square footage in the South Boston Waterfront. The Summer Street Bus/Truck Lanes continue to exert a powerful effect on vehicle travel along Summer Street; this project is anticipated to be in place regardless of future buildout of the RLFMP. This loss of vehicle capacity will be counteracted by the improved bus operations for services using the Summer Street corridor. Additionally, freight travel will benefit from use of these lanes.

As discussed elsewhere in this Chapter, the Summer Street Bus/Truck Lanes project is consistent with an emphasis on non-vehicular commuting to and from the Park. The project is particularly notable for preserving truck access amidst deteriorating vehicle operations in the No-Build condition, regardless of the level of industrial or non-industrial growth in the Park.

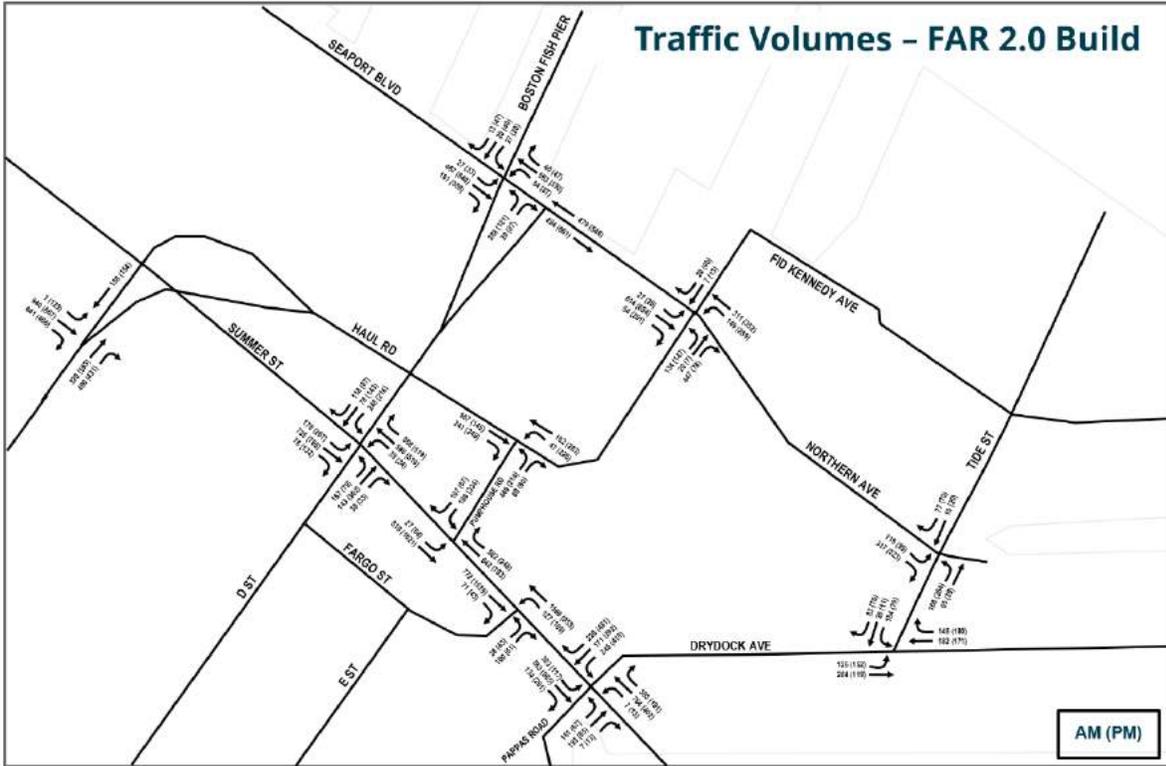


Figure 22: Traffic volumes under FAR 2.0 conditions

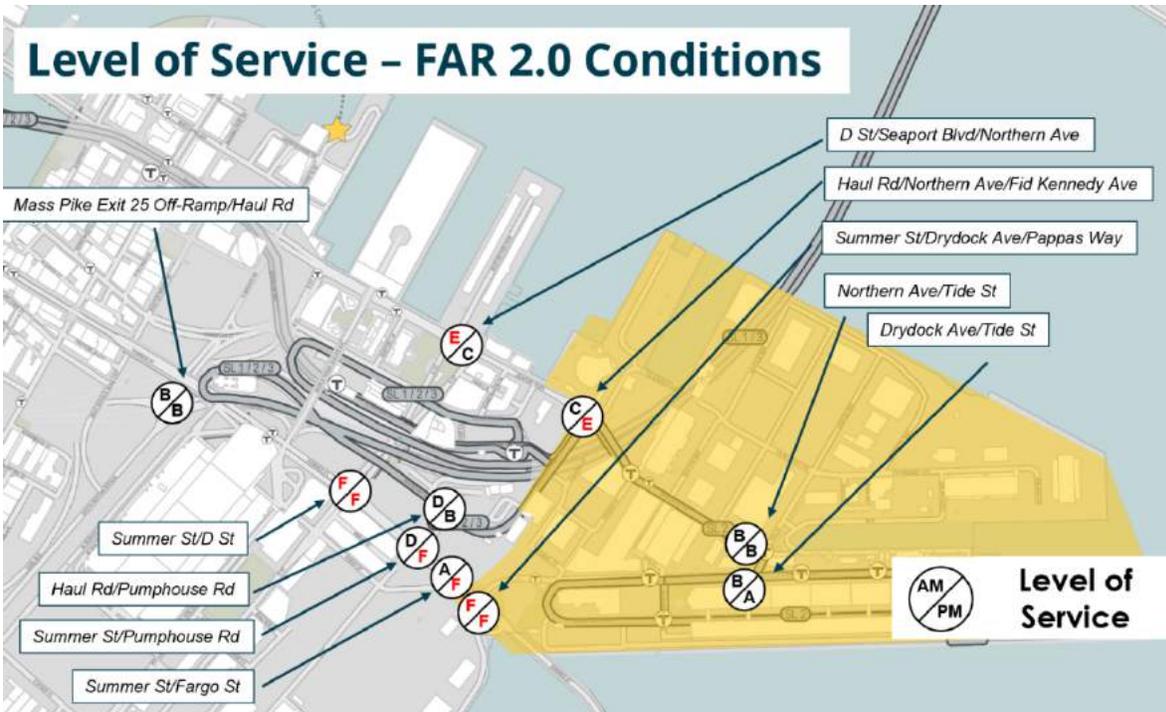


Figure 23: Level of service analyses under FAR 2.0 conditions

Table 14: Future Build 2.0 Conditions on No-Build Roadway Network Analysis – Signalized Intersections

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th h	95th
Northern Avenue/Seaport Boulevard/D Street/Boston Fish Pier										
Northern Ave WB-LTR	C	26.4	0.77	145	425	C	29.0	0.79	192	387
Boston Fish Pier SB-LTR	D	43.2	0.41	32	65	D	41.4	0.40	48	88
Seaport Blvd EB-LTR	F	>100	>1.00	260	376	D	36.1	0.92	332	601
D Street NB LT	D	42.6	0.69	131	227	D	37.2	0.55	111	182
D Street NB R	C	32.9	0.07	11	32	C	34.6	0.29	50	97
OVERALL	E	63.3	0.79			C	34.1	0.71		
Summer Street/Drydock Avenue/Pappas Way										
Summer St EB-L	F	>100	>1.00	279	319	C	29.6	0.44	76	127
Summer St EB-TR	C	26.8	0.94	423	*202	F	>100	>1.0	151 1	1776
Drydock Ave SB-LT	F	>100	>1.00	430	619	F	>100	>1.0	752	980
Drydock Ave SB-R	C	22.7	0.15	0	51	B	12.5	0.31	0	49
Summer St WB-LT/TR	F	>100	>1.00	546	683	F	>100	>1.0	363	485
Pappas Way NB-LTR	F	>100	>1.00	484	676	F	>100	>1.0	231	322
<i>*Metered by upstream signal</i>										
OVERALL	F	>100	>1.00			F	>100	>1.0		
Summer Street/Pumphouse Road										
Summer St WB-TR	B	19.3	0.80	111	268	E	55.8	0.97	456	589
Pumphouse Road SB-L/LR	D	50.2	0.69	82	132	E	63.0	0.90	157	248
Summer St EB-LT	F	84.3	>1.00	690	740	F	>100	>1.0	147 8	1184
OVERALL	D	47.5	0.83			F	>100	>1.0		
Haul Road/Pumphouse Road										
Haul Road WB-L	C	34.0	0.56	23	58	A	4.3	0.29	38	90
Haul Road WB-T	C	32.0	0.61	91	149	A	4.1	0.22	41	92
Haul Road EB-T	F	86.9	>1.00	364	556	A	3.7	0.11	19	46
Haul Road EB-R	B	18.0	0.17	0	50	A	3.9	0.17	0	24
Pumphouse Road NB-L	D	44.6	0.90	224	431	D	35.3	0.70	110	166
Pumphouse Road NB-R	B	19.4	0.06	0	32	C	26.5	0.06	0	32
Overall	D	52.1	0.91			B	11.3	0.37		
Summer Street/D Street										

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th h	95th
Summer St WB-R	C	24.7	0.66	294	404	D	49.4	0.46	122	206
Summer St WB-T	F	>100	>1.00	549	782	F	90.7	>1.00	426	632
Summer St WB-L	F	80	>1.00	26	56	B	12.5	0.63	11	25
D St SB-L	D	43	0.70	167	257	D	40.6	0.64	151	233
D St SB-TR	C	33	0.18	23	54	C	34.2	0.27	47	82
Summer St EB-L	F	>100	>1.00	95	241	F	>100	>1.00	244	420
Summer St EB-T/TR	F	>100	>1.00	759	1016	F	>100	>1.00	924	1196
D St NB-L	D	36	0.46	107	177	D	35.7	0.25	51	96
D St NB-TR	C	34	0.26	49	82	D	37.9	0.49	116	164
OVERALL	F	>100	0.98			F	>100	>1.00		
Mass Pike Exit 25 Off-Ramp/Haul Road										
Haul Road SB-LT	B	10.9	0.32	35	65	A	7.0	0.21	26	58
Mass Pike Off-Ramp EB-L	A	9.6	0.00	0	2	B	10.1	0.23	22	47
Mass Pike Off-Ramp EB-T	B	12.3	0.57	67	96	B	12.1	0.58	68	102
Mass Pike Off-Ramp EB-R	B	10.8	0.31	0	41	B	10.6	0.33	0	42
Haul Road NB-T	A	7.5	0.40	54	113	B	11.8	0.72	121	282
Haul Road NB-R	A	9.6	0.61	68	213	A	9.0	0.56	61	145
OVERALL	B	10.5	0.60			B	10.7	0.66		

Table 15: Future Build 2.0 Conditions on No-Build Roadway Network Analysis – Unsignalized Intersections

	AM Peak Hour				PM Peak Hour			
	LOS	Delay (s/veh)	v/c	95 th Queue (feet)	LOS	Delay (s/veh)	v/c	95 th Queue (feet)
Drydock Avenue/Tide Street (unsignalized)								
Drydock Ave WB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Tide St SB-TR	E	43.3	0.79	168	C	18.4	0.38	43
Drydock Ave EB-TL	A	2.5	0.11	10	A	4.7	0.15	13
OVERALL	B	12.7			A	5.3		
Northern Avenue/Tide Street (unsignalized)								
Drydock Plaza Dr WB-LTR	A	8.6	0.00	0	A	7.8	0.00	0
Tide St SB-LTR	A	8.8	0.15	13	A	8.2	0.13	10
Northern Ave EB-LTR	B	13.2	0.58	93	A	9.9	0.34	38
Tide St NB-LTR	B	11.4	0.38	43	B	11.7	0.45	58
OVERALL	B	12.1			B	10.5		
Summer Street/Fargo Street (unsignalized)								
Summer St WB-LT/T	A	5.1	0.18	18	A	7.3	0.33	35
Summer St EB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Fargo St NB-LR	C	21.7	0.39	45	F	>100	>1.0	370
OVERALL	A	4.3			F	>100		
Northern Avenue/Haul Road/Fid Kennedy Avenue (unsignalized)								
Northern Avenue EB LTR	B	11.7	0.64	125	F	60.7	>1.0	550
Northern Avenue WB LTR	A	8.3	0.47	75	B	11.8	0.63	125
Haul Road NB LTR	E	39.2	0.91	300	B	11.7	0.39	50
Fid Kennedy Avenue SB LTR	A	5.6	0.05	0	A	7.5	0.10	0
OVERALL	C	19.7			E	36.4		

1.4 PARKING

The parking supply within the Park is managed by BPDA and Massport. Rather than requiring individual parcels and developments to build and manage dedicated parking, the BPDA allocates a set number of spaces per development. The spaces allocated are determined through the development permitting process. While this practice is not standard for developments across the city or region, it is a national best practice. Limiting the parking allocations within the RLFMP allows the BPDA to predict vehicle travel into the site and parking demand within the Park. This parking strategy supports limiting parking within the RLFMP and a shift towards alternative transportation modes. The practice is a result of the South Boston Waterfront Parking Freeze limiting the RLFMP to 4,336 parking spaces.

Existing developments and parking allocations account for 90% of the permitted parking supply in the RLFMP. Additional development in the Park cannot be fully accommodated by drive alone commuting, especially during peak periods of parking utilization within the Park. The FMPU proposes reliance on

shared parking practices and support for alternative transportation options, including transit, bicycling, and robust TDM strategies, to counteract these parking limitations.

1.4.1 Existing Condition

The Park is within the boundaries of the South Boston Parking Freeze and is subject to the regulations of the policy. The South Boston Parking Freeze allows a maximum of 30,389 off-street parking spaces in South Boston. As of March 2020 there were 1,834 spaces available in the parking freeze bank.² Under this agreement, the BPDA has permitted 4,336 of the 30,389 off-street parking spaces and Massport is permitted 935 parking spaces from the South Boston bank, for a total of 5,271 parking spaces within the Park.

If BPDA were interested, they could request an additional allotment of spaces from the available 1,834 in the parking freeze bank. The BPDA does not currently have a position on this action.

Parking Supply and Demand

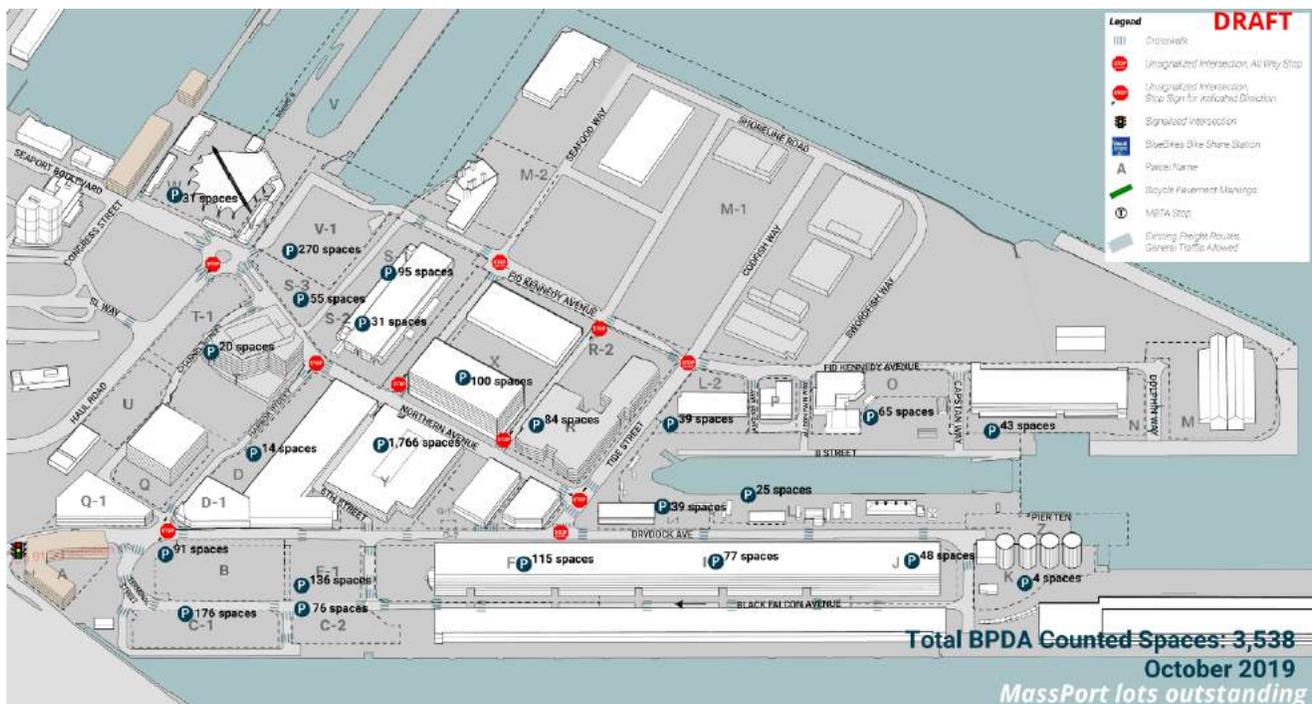


Figure 24: Parking by parcel in the RLFMP (source: BPDA)

The BPDA and Massport oversee all parking in the RLFMP, managing the parcel allocations and abiding by the regulations set forth in the Parking Freeze. Existing allocations are determined by the demand a parcel generates as well as agreements made in the Article 80 development review process. Figure 24 shows the existing parking allocations by parcel.

Parcels Y, C-1, C-2, and V-1 are shared parking facilities, managed by the BPDA. The agency encourages shared parking within the Marine Park, and does so by managing the total number of spaces and parking prices to meet market demand, as well as the BPDA’s goals around parking management

² <https://www.boston.gov/departments/environment/air-pollution-control-commission/parking-freezes#:~:text=The%20freeze%20allows%20a%20maximum,these%20to%20new%20parking%20facilities.>

and transportation demand management. As described in later sections of the report, the BPDA intends to continue their focus on TDM, transit, and bicycle and pedestrian access within the park, providing an environment that reduces the need for parking. The shared parking facilities will continue to play a role in this effort, and the BPDA will adjust supply and pricing as needed.

Challenges for Parking in the RLFMP

BTD will soon be introducing parking ratio maximums throughout the city. These ratios will be customized according to a pre-defined Mobility Score target which will also be utilized for the TDM Point System and associated TDM commitments, detailed later in Section 1.8. The new ratios are expected to result in a significant reduction in the amount of on-site parking built for development projects once initiated.

With pending and new development increasing, the allocation of parking spaces is of utmost concern to the Agency today. With the new parking ratios (0.65 per 1,000 square feet of marine industrial and general industrial space; 0.5 per 1,000 square feet of research and development space), the permitted and planned projects would require more parking than is currently allocated under the Freeze if these projects were to build to the maximum allowed parking ratio.

This Master Plan Update will consider the existing parking ratios and land-use mix to explore options, including adjusting the ratios, applying for more spaces under the parking freeze, and considering the impact of transportation demand management measures on the demand for parking.

1.4.2 Future No-Build Conditions

Parking resources within the Park are not impacted under No-Build conditions as growth in travel activity is restricted outside the Park.

1.5 FREIGHT

Freight operations out of the RLFMP are critical to the region's industrial ecosystem. The Park's core of seafood processing, manufacturing, and design activity is steadily accompanied by new development projects bringing life sciences, technology, and research to the neighborhood. The challenge for the Park is ensuring these industrial uses, particularly marine industrial uses, are accommodated given the anticipated growth within the RLFMP and throughout the broader South Boston Waterfront.

The FMPU's analysis of transportation impacts associated with future buildout of the Park operated under the core assumption that the continued success of these industrial uses was paramount. In particular, marine industrial uses associated with the Massport Marine Terminal and the RLFMP must have reliable access to the region's highway network. With the anticipated growth of bicycling and walking activity, particularly in the vicinity of transit services such as the SL2, minimizing the risk of conflict between vulnerable road users and freight traffic is also of utmost importance.

The City is actively planning roadway improvement projects which will re-define RLFMP and South Boston Waterfront truck routes, directing freight activity to roadways of more industrial nature and preserving corridors with high amounts of foot traffic from increased truck travel. The anticipated Haul Road/Summer Street/Drydock Avenue Connector, E Street Connector (and the Cypher Street to E Street Connector), Haul Road/Northern Avenue/Fid Kennedy Avenue realignment, and Fid Kennedy Avenue improvement projects will direct truck traffic to better utilize the E Street, Haul Road, and Fid Kennedy Avenue corridors to access industrial uses inside the Park. These improvements will divert general vehicle traffic to the Drydock Avenue corridor in order to enhance truck operations and, in combination with the Northern Avenue Reconstruction project, provide quality bicycle and pedestrian connections and access to transit within the Park and accommodated safely with truck activity.

Using data collected as part of recent development projects, an evaluation of freight operations on study area roadways found that freight users commonly access the Park outside of peak travel periods due to the nature of business operations not requiring peak period access. Traditional commuting peak vehicle travel periods for the Haul Road and Northern Avenue corridors experience lower amounts of truck traffic than surrounding time periods, indicating an avoidance of industrial uses to schedule deliveries during times of peak congestion. The concentration of trucks on roadways as a percentage of all roadway traffic generally peaks during overnight hours.

1.5.1 Existing Conditions

Truck Routes and Traffic Data

Figure 25 shows existing freight facilities and truck routes in the South Boston Waterfront area as of November 2017. In addition to Massport Marine Terminal and the Boston Marine Industrial Park in the RLFMP, major freight facilities in the area include the Fargo Street Terminal, the Boston Convention and Exhibition Center, and the Conley Container Terminal. The importance of the Haul Road for freight operations is emphasized below.



Figure 25: Existing (as of November 2017) and proposed truck routes in the South Boston Waterfront (source: Massport)

Eleven-hour traffic counts collected as part of the 88 Black Falcon PNF³, submitted by DIV Black Falcon, LLC in February 2021, show that 75% of trucks between 7:00 AM and 6:00 PM on Tuesday, September

³ This is the most recent data available showing more than peak hour counts at each gateway intersection; while the split of truck travel is demonstrated by this data, the PNF shows less than one third

18, 2018 entered the Park via the Northern Avenue/Haul Road/Fid Kennedy Avenue intersection, speaking to the importance of this intersection for providing freight access. The primary focus of this chapter will be access via this intersection, given this split.

The 2 Harbor Street PNF, submitted by ICCNE LLC in 2019, and the Functional Design Report (FDR) drafted by Nitsch Engineering in 2019 for the Cypher Street/E Street Connector project each detail truck movements along select study area intersections and roadway segments. Truck movements were queried for the following roadway segments using automated traffic recorder (ATR) data to analyze the relationship between truck travel and vehicle traffic:

- Northern Avenue, west of the Northern Avenue/Haul Road/Fid Kennedy Avenue intersection; 24-hour counts were collected between Tuesday and Thursday, June 11-13, 2019.
- Haul Road, south of the Northern Avenue/Haul Road/Fid Kennedy Avenue intersection; 24-hour counts were collected between Tuesday and Thursday, June 11-13, 2019.
- E Street, south of the E Street/Fargo Street intersection; 24-hour counts were collected on Tuesday and Wednesday, June 13-14, 2017.
- D Street, south of the D Street/Summer Street intersection; counts were collected between 7:00 AM and 6:00 PM on Wednesday, June 14, 2017. Movements are only available for northbound travel.
- Summer Street, between the Fargo Road and Pappas Way intersections; 24-hour counts were collected on Tuesday and Wednesday, June 13-14, 2017.

These roadway segments reflect the critical truck routes identified in Figure 25 above.

Truck activity peaks in the mid/late morning along Northern Avenue, Haul Road, E Street, and D Street, as shown in Figure 26. Except for D Street, truck activity as a percentage of all travel along these roadway segments is approximately halved during the traditional AM peak hour of 8:00 to 9:00 AM, when vehicle activity accessing the Park is more intense. This shows that business operations are not dependent on peak period travel access to the Park.

as many trucks in the travel network than the 2 Harbor Street PNF. This chapter primarily references the 2 Harbor Street PNF to present a more conservative analysis.

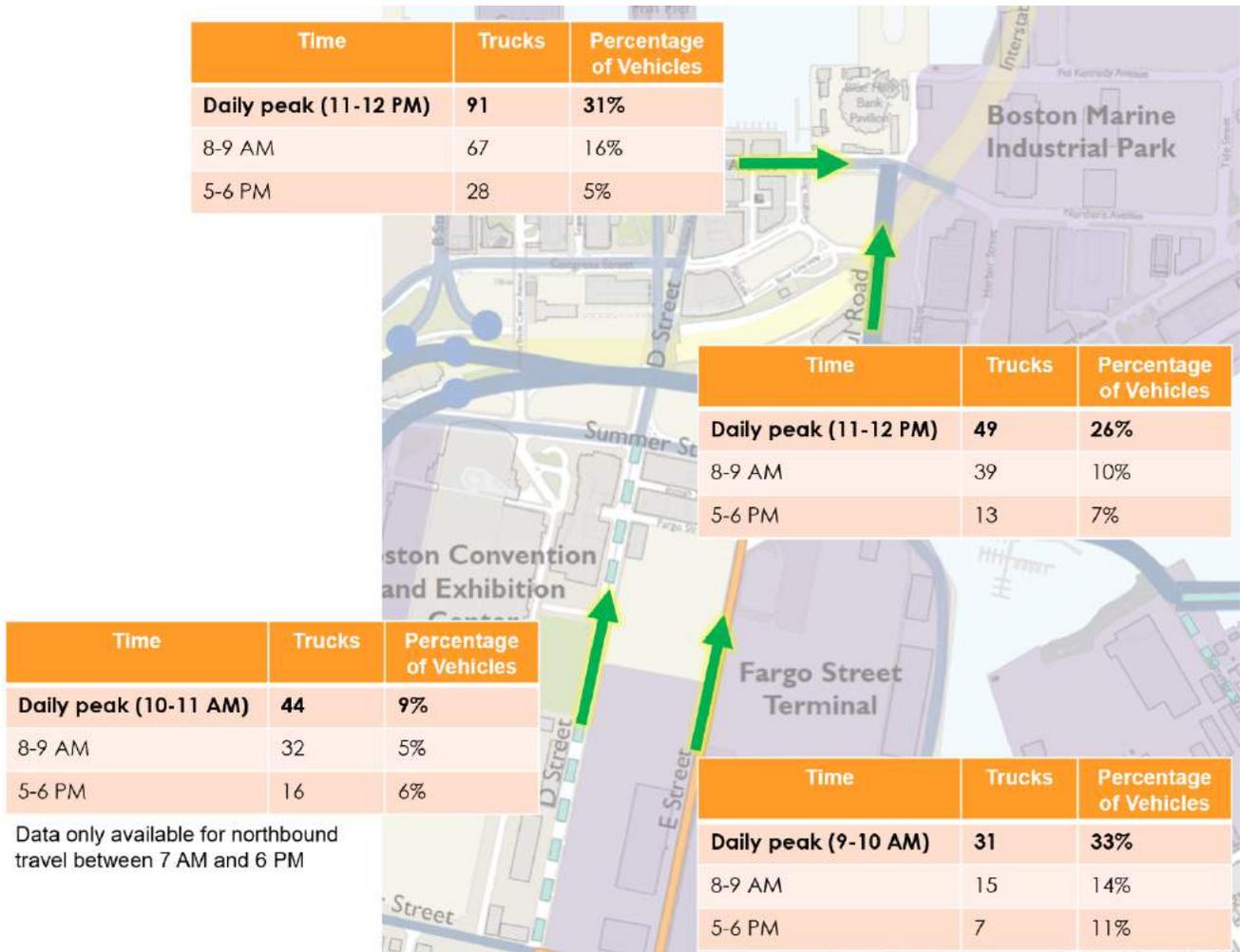


Figure 26: Truck travel towards the RLFMP shows that truck activity is most intense outside of peak travel periods (source: 2 Harbor Street PNF and E Street Connector FDR)

For truck traffic departing the Park, truck activity peaks in the late morning and early afternoon along Northern Avenue and Haul Road, as shown in Figure 27. Trucks are more likely to travel in the outbound direction during the traditional AM peak hour; during the PM peak hour, truck activity is significantly lower. An exception to this pattern is along E Street, which under Existing conditions features an insignificant amount of Project-related trips.

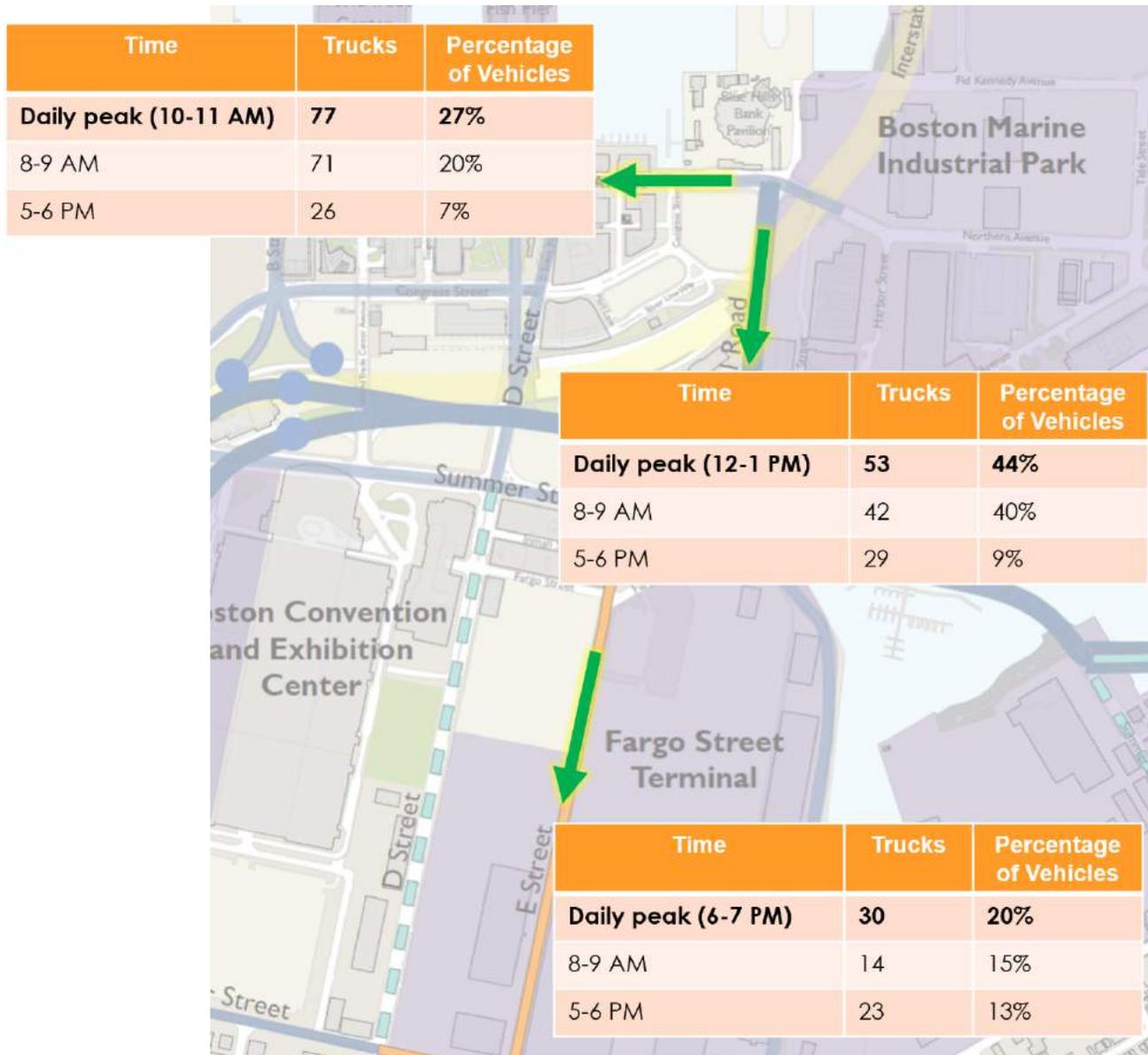


Figure 27: Truck travel away from the RLFMP shows that truck activity is most intense outside of peak travel periods (source: 2 Harbor Street PNF and E Street Connector FDR)

Figure 28 and Figure 29 show truck volume averages along Northern Avenue and Haul Road for traffic entering the Park over a 24-hour period as a reflection of all traffic along these roadway segments. The red bar notes the two-hour period with the highest vehicle traffic; between 5:00 and 7:00 PM in the eastbound direction along Northern Avenue and between 8:00 and 10:00 AM in the northbound direction along Haul Road. The figures show the following characteristics relating to truck access to the Park:

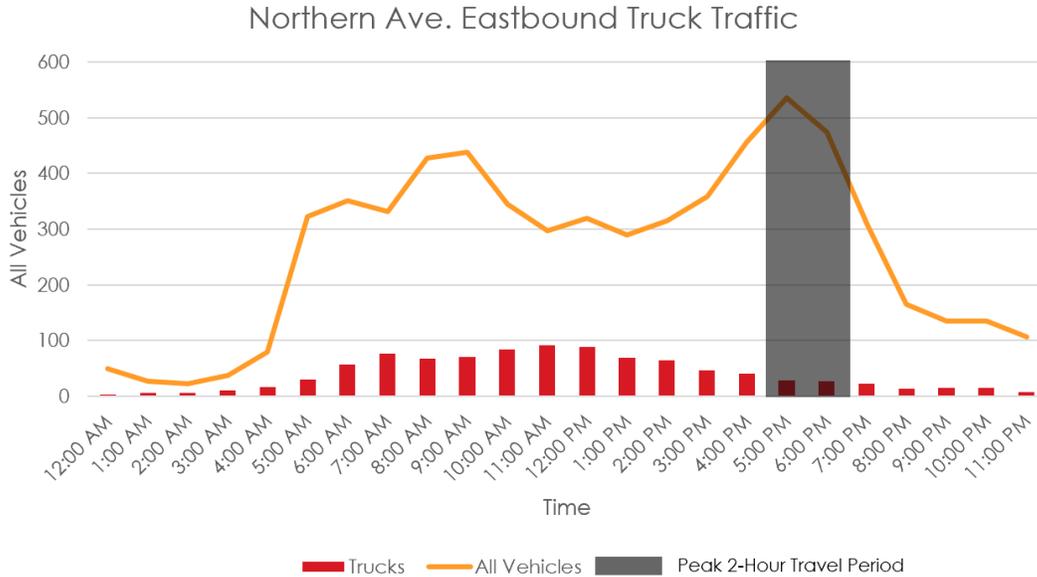


Figure 28: Truck activity entering the Park peaks along Northern Avenue during off-peak travel periods in the late morning and early afternoon (source: 2 Harbor Street PNF)

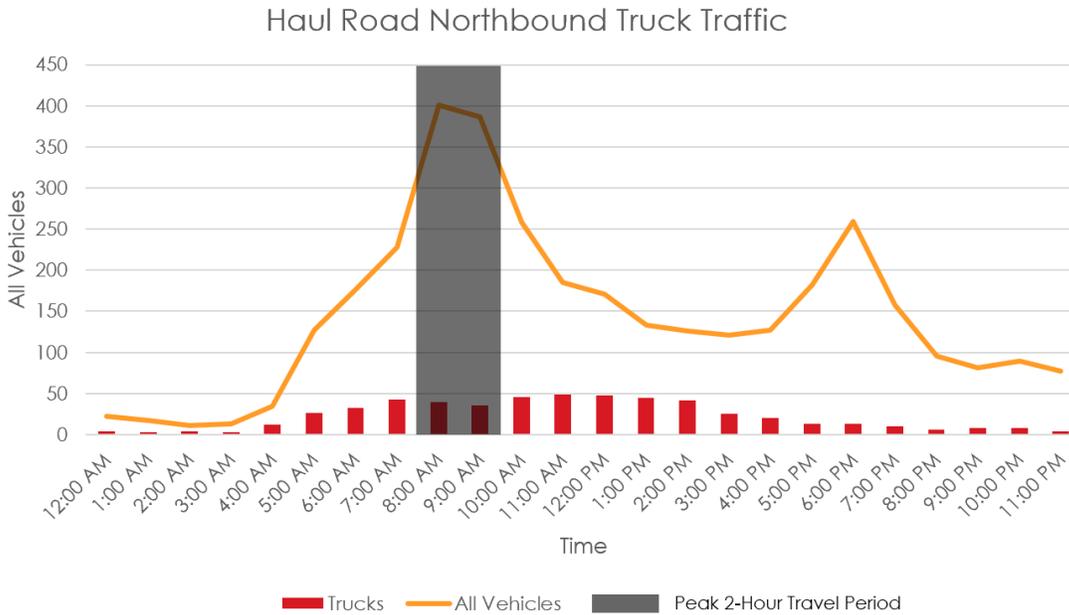


Figure 29: Truck activity entering the Park peaks along Haul Road during off-peak travel periods in the late morning and early afternoon (source: 2 Harbor Street PNF)

Data along Summer Street presented Figure 30 and Figure 31 in shows a similar condition; truck activity generally peaks outside of peak travel conditions. This is particularly true of eastbound travel, where truck traffic is light in the PM peak condition when vehicle travel is heaviest. Truck activity peaks at 126 vehicles (17% of all traffic) between 10:00 and 11:00 AM in the eastbound direction (towards South Boston) and at 141 vehicles (20% of all traffic) between 11:00 AM and 12:00 PM in the westbound direction (towards Downtown Boston).

It should be emphasized that trucks along Summer Street are also accessing the Conley Terminal in addition to the Park; as discussed earlier, only 25% of truck travel to and from the Park uses the Summer

Street/Drydock Avenue/Pappas Way intersection. The anticipated Summer Street Bus/Truck Lanes will provide dedicated access to trucks along Summer Street in the future condition.

Summer Street Eastbound Truck Traffic

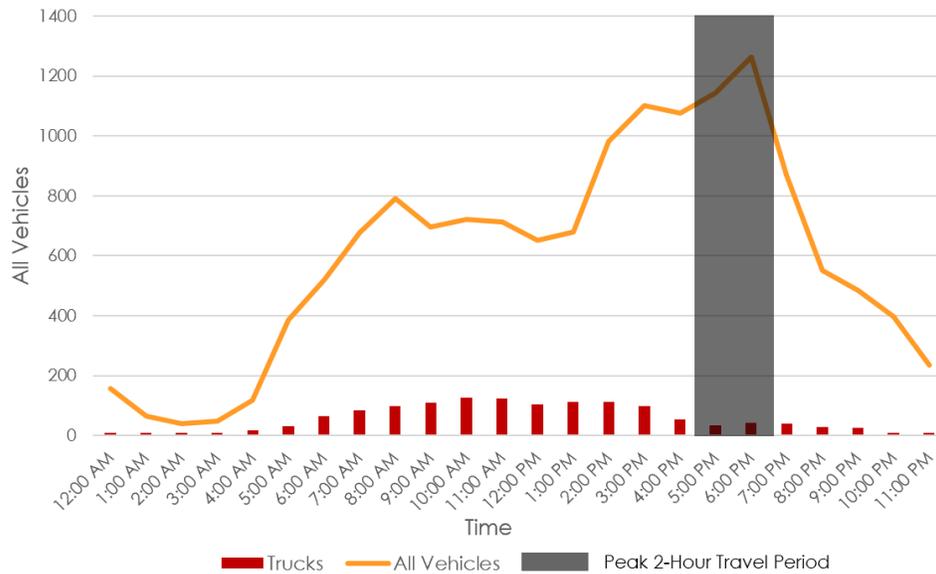


Figure 30: Eastbound (towards South Boston) truck activity along Summer Street peaks during the late morning and early afternoon (source: 88 Black Falcon PNF)

Summer Street Westbound Truck Traffic

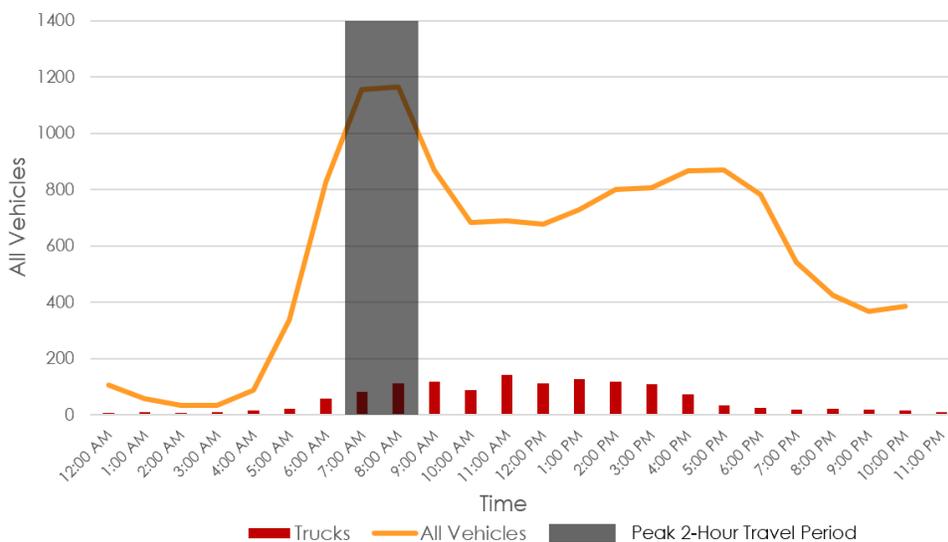


Figure 31: Westbound (towards Downtown Boston) truck activity along Summer Street peaks during the morning peak period and late morning/early afternoon (source: 88 Black Falcon PNF)

Several conclusions can be posited based on this travel data:

- The Northern Avenue/Haul Road/Fid Kennedy Avenue gateway intersection observes significantly more truck activity than the Summer Street/Drydock Avenue/Pappas Way intersection.
- Business operations in the Park are not dependent upon freight access in peak travel periods. For example, trucks constitute as high as 47% of all travel during the 6:00 to 7:00 AM travel period along Haul Road departing the RLFMP.
- Freight operations are conducted primarily outside of peak period travel conditions.
- The Northern Avenue corridor experiences more truck activity than the Haul Road corridor.
- The D Street corridor experiences more truck activity than the E Street corridor, where data is available to demonstrate this.
- Truck volumes along Summer Street also exhibit off-peak travel patterns; truck activity is generated by the Conley Terminal and future travel will be supported by the Summer Street Bus/Truck Lanes.

Track 61

Track 61 is RLFMP's sole rail corridor, running along Haul Road and extending along Drydock Avenue to the 88 Black Falcon Avenue property. The track is not currently in operation; it was once heavily utilized but was cut off during the Central Artery Tunnel project. A 2008 report estimated the cost for improving Track 61 was approximately \$7.43 million.

There are no current plans to restore Track 61, however the City and other State agencies have been working to protect the right-of-way for future use. The DMPU identified freight rail limitations outside of the Park, including the inability to accommodate double-stacked service beyond Allston, heavy passenger rail operations at South Station, and multiple grade crossings. Additionally, space within the RLFMP supports only 25 to 40 cars, below the national standard. The lack of rail service was not identified as hindering tenant operations in the Park.

Preservation of Track 61 was recommended in the 2017 DMPU. Passenger rail service has also been explored and planned for and continues to be a longer term consideration for enhanced transit mobility. Recent development projects have been designed to preserve the rail right-of-way in the event a future service is introduced.

Stakeholder Input

The 2017 DMPU included interviews with 11 businesses regarding their ground operations. The City's ongoing transportation planning efforts aim to address many concerns raised by stakeholders by:

- Preserving truck access to the Haul Road and the interstate highway system through gateway intersection improvement projects (Haul Road/Northern Avenue/Fid Kennedy Avenue reconstruction, Haul Road/Summer Street/Drydock Avenue Connector)
- Better segregating access to the Park between freight uses (primarily via the Fid Kennedy Avenue corridor) and other uses (primarily via Drydock Avenue and Northern Avenue)
- Supporting the E Street Connector project to provide additional neighborhood access to the Park, building redundancy with the South Boston Bypass Road, D Street, and Summer Street corridors
- Preserving parking for industrial uses, which often require travel during off-peak periods for transit and make travel by other modes impractical

- Supporting transit investments in the South Boston Waterfront via the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study

Another issue which was raised in the 2017 DMPU was staging and layover space for trucks. Massport has indicated that it will examine the adequacy of proposed staging and layover spaces as part of new development projects in the Massport Marine Terminal.

1.5.2 Future No-Build Travel Assumptions

The primary roadway infrastructure project which addresses freight travel in the No-Build condition is the Summer Street Bus/Truck Lanes. Once implemented, this project will allow truck access in dedicated lanes along Summer Street between Melcher Street and the Reserve Channel.

This corridor is more critical to access for Downtown Boston and the Conley Freight Terminal; trucks currently accessing the Park primarily do so via Haul Road and Northern Avenue. Nevertheless, the decision to allow truck use of these lanes speaks to the emphasis on facilitating improved truck travel throughout the South Boston Waterfront. Prior to the implementation of projects anticipated in the Mitigated Build Condition, such as the Haul Road/Summer Street/Drydock Avenue Connector, the Summer Street Bus/Truck Lanes will better facilitate east-west access to and from the RLFMP.

1.6 ACTIVE TRANSPORTATION

Understanding the need to shift from single-occupancy cars as a result of roadway and parking capacity restrictions, transit, bicycling, and walking will play a major role in the transportation environment of the RLFMP in the coming years. Transit connections via the Silver Line, Route 7, and potential future ferry services requires a robust walking and bicycling network to provide last-mile connections between visitors and destinations. Access to transit stops and shared parking facilities cannot be safely made without attention to bicycle infrastructure and the pedestrian right-of-way.

This section will explore the existing infrastructure and limitations in the RLFMP for bicyclists and pedestrians. It also looks at the ongoing and planned infrastructure projects in the Park will better support walking and bicycling needs by, including plans to providing safe dedicated bicycle infrastructure, such as via the Northern Avenue Reconstruction project, and segregating freight from bicycle and pedestrian uses, by pushing truck activity to the Haul Road and Fid Kennedy Avenue corridors and supporting Drydock Avenue and Northern Avenue as more welcoming environments for foot traffic.

Additionally, as the Mitigated Build analysis will show, the redirection of future truck traffic to the E Street and Haul Road corridors will reduce heavy vehicle volumes from D Street and Northern Avenue outside the Park, which feature significant amounts of foot and bicycle traffic.

Bicycle and pedestrian counts east of Harbor Street demonstrate the peak hour pedestrian volumes at the entry points of the Marine Park. These counts are available in the Appendix and were obtained from the 2 Harbor Street PNF filing in 2019.

1.6.1 Bicycle Networks

This section describes the existing bicycle network in and around the Park, including facility descriptions and a technical assessment of the level of traffic stress experienced by bicyclists conducted by the City of Boston in Fall 2020. While the existing condition of bicycle facilities within the Park are substandard today, the City of Boston is working towards implementation of designs to better protect existing cyclists and promote cycling to those who choose other modes of travel today.

Bicycle Existing Conditions

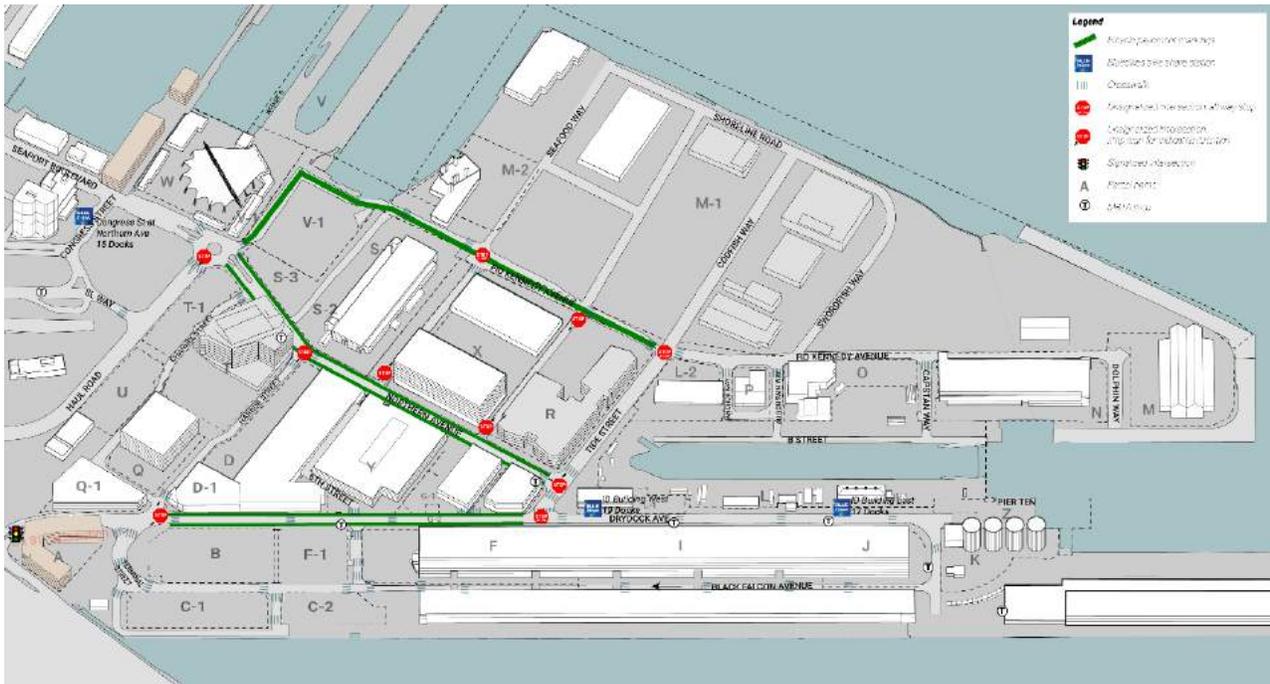


Figure 32: Existing bicycle network in the RLFMP (source: Boston Transportation Department)

The bicycle network in the Park has not evolved as robustly as the rest of the South Boston Waterfront, and falls short of achieving the recommended best practice in bicycle planning.

Existing sharrows and low-quality bicycle facilities exist on Fid Kennedy Avenue, Northern Avenue, and Drydock Avenue, although the deteriorating condition of the pavement markings do not suggest bicycles are a priority on the roadways. Aside from three (3) Bluebikes stations (one at Congress Street/Northern Avenue and two at the Innovation and Design Center), there is no publicly available bicycle parking in the Park. These inadequate bicycle conditions exist despite high volumes of bicycle counts⁴. Persistent Bluebikes patterns show that there is a demand for quality bicycle facilities in the area.

In the fall of 2020, the BTD developed a Bicycle Level of Traffic Stress (LTS) score for each street within the Park and published a technical memorandum on this subject in December 2020⁵. The scores are calculated using traffic speeds, average daily traffic volumes, lane counts, and conflict factors (i.e. bus lanes, bus stops, and school zones). The LTS methodology is an adaptation of the Mineta Transportation Institute *Low-Stress Bicycling and Network Connectivity* report⁶, with standards based in the NACTO *Urban Bikeway Design Guide*. The findings from the BTD analysis, relevant to the RLFMP, are summarized below, with more detail found in the report itself.

⁴ 2 Harbor Street PNF, November 2019

⁵ *Bicycle Level of Traffic Stress – Technical Documentation*, December 2020, Version 1.0
City of Boston

<https://www.boston.gov/sites/default/files/file/2020/12/Bicycle%20Level%20of%20Traffic%20Stress%20Report%20%26%20Guide%20for%20Large%20Developments.pdf>

⁶ *Low-Stress Bicycling and Network Connectivity*, May 2012

Mineta Transportation Institute

<https://transweb.sjsu.edu/sites/default/files/1005-low-stress-bicycling-network-connectivity.pdf>

LTS is scored 1 through 4, with a score of 1 representing a roadway that is comfortable for riders of all ages and abilities and a 4 representing a roadway that is not welcoming to all kinds of bicyclists. Figure 33 is the table included in the BTD report defining each score.

TABLE 1. DEFINITION OF EACH LEVEL OF TRAFFIC STRESS (LTS) SCORE

LTS	Description
1	Corridor is comfortable for all ages and abilities including children. LTS 1 roadways are characterized by protected bike lanes or greenways, and very little to no intermingling with vehicular traffic.
2	Tolerated by most adults. There may be some turning conflicts but cyclists are mostly separated from traffic through bike lanes. This type of corridor demands more attention from riders than an LTS 1 and is likely not suitable for children. Projects must improve bicycle facilities to meet an LTS 2 standard or better.
3	Roadways may have bike lanes next to multilane vehicular traffic with above average traffic volumes or vehicular speeds higher than Boston's default speed limit. An LTS 3 may also include shared lanes on streets that are not multilane and experience vehicular traffic at the City's default speed limit or lower.
4	Tolerated by only the most experienced and able bodied riders.

Figure 33: Definition of Each Level of Traffic Stress Score from Bicycle Level of Stress Report (City of Boston)

Within the Park, most roads received an LTS score of 3, with some portions of Fid Kennedy Avenue, Northern Avenue, and Harbor Street scoring at an LTS 2. The greater concerns to bicycle stress and connectivity are the connections into the Park along Summer Street and Northern Avenue, west of the Haul Road. These important gateways received an LTS 4 and can act as a deterrent to bicycling to the Marine Park if not addressed. Providing a connected and safe bicycle network is critical to increasing the bicycle volumes, reducing dependence on motorized vehicles, and meeting the Go Boston 2030 aspirational mode share goals within the Marine Park. Figure 34 is an excerpt of the Bicycle Level of Traffic Stress map, focusing in on the Marine Park.

The City of Boston recognizes the challenge that Summer Street and Northern Avenue pose to bicyclists in this part of the city and the demand for cycling to and within the Park. Between January and June 2019, just under 15,000 trips were made to the RLFMP Bluebike stations. Twenty-two percent (22%) of these trips originated/terminated at South Station or North Station, with riders likely making use of the dedicated bicycle lanes on Summer Street and Seaport Boulevard. Five percent (5%) of trips were made within the Park and 21% were made within the South Boston Waterfront.

The City of Boston has been designing and implementing bicycle lanes along Summer Street. Installation began in the spring of 2018, and as of December 2020, the bicycle lanes extend from Melcher Street to West Service Road. Continuation of these lanes will provide a direct, dedicated bicycle route to the Park from Downtown Boston and its budding bicycle network. Summer Street also provides a connection to the D Street bicycle lanes, providing a connection to the South Boston residential neighborhood.

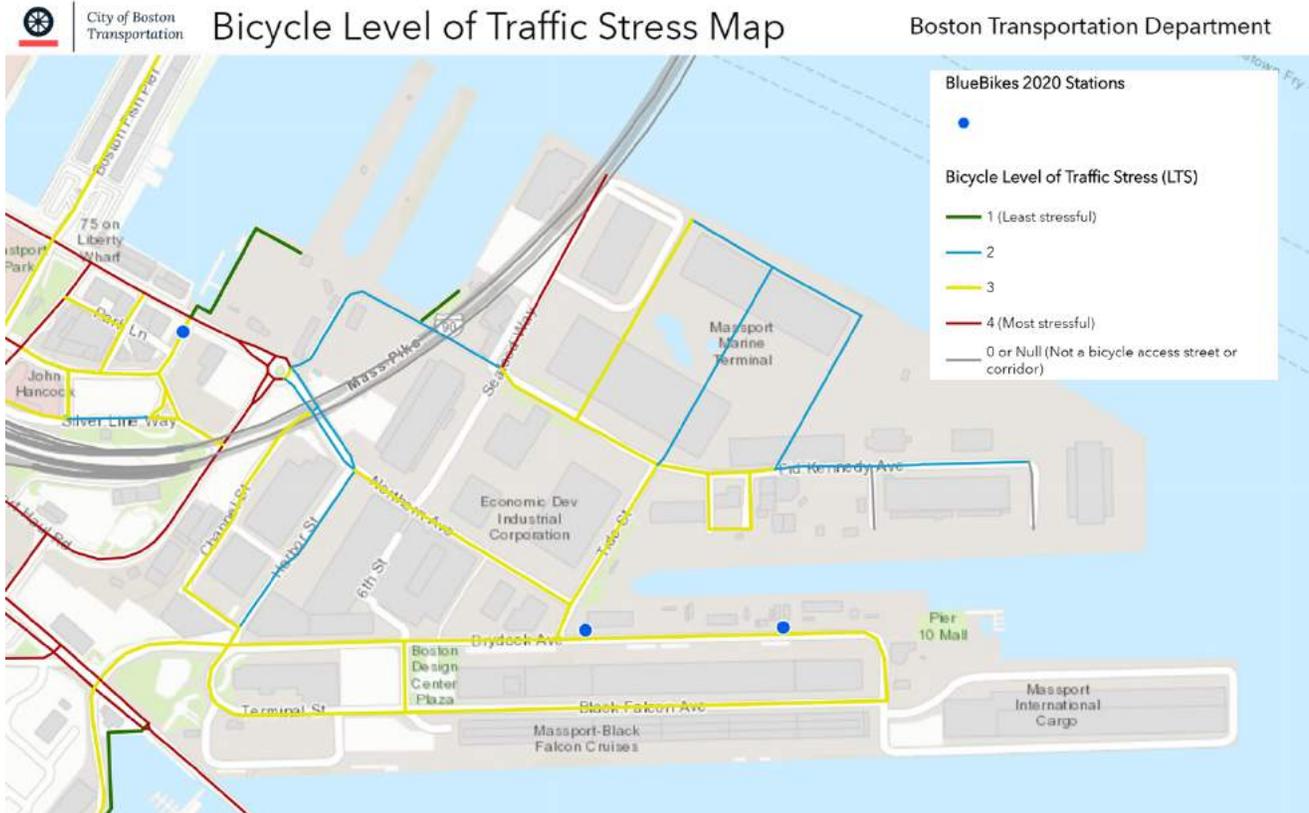


Figure 34: Bicycle Level of Traffic Stress

On the northern entry point to the Park at Northern Avenue, the low score can be attributed to a lack of dedicated bicycle space. Bicycle lanes on Drydock Avenue and Fid Kennedy Avenue merge into general traffic for 2,000 feet until meeting the dedicated bicycle lanes on Seaport Boulevard at B Street. The City is continuing to engage in conversations with Massport to provide better facilities for bicyclists along this corridor.

Future No-Build Travel Assumptions for Bicycling

While the City of Boston has been committed to improving bicycling conditions, the level of stress analysis provided quantitative evidence that Summer Street and Northern Avenue are not well-suited for cycling to the Park, and that the roadways within the Park could use bicycle improvements as well. Several anticipated changes to the study area bicycle network are incorporated into the No-Build travel assumptions. These are defined below and illustrated in Figure 35 and Figure 36.

Northern Avenue

The Northern Avenue Reconstruction project will provide two six-foot separated bicycle lanes along the length of the corridor. These bicycle lanes will replace the existing unprotected on-street bicycle lanes, providing a safe bicycle connection to Tide Street and Drydock Avenue.

As described above, there are no bicycle facilities on Northern Avenue between B Street and the Haul Road, a corridor maintained by Massport. The City of Boston is in support of a plan to extend the Seaport Boulevard bicycle lanes to the newly designed Northern Avenue lanes, but this plan does currently not exist.

Summer Street

The City intends to extend the fully protected bicycle accommodations along Summer Street to Drydock Avenue and across the Reserve Channel in each direction. These accommodations will be implemented with the City's Summer Street reconstruction project which also intends to include bus/truck-only lanes and other bus operational improvements on Summer Street.

Connections to Fort Point Channel

The South Boston Waterfront's existing and planned bicycle network provides connections from Downtown Boston and the South Boston residential neighborhood through a web of bicycle lanes and paths along the harbor. A desired connection from the Fort Point channel to the RLFMP will provide another connection from the southern neighborhoods of the city. This connection requires new bicycle facilities along Necco Court and Boston Wharf Road, connecting the channel's path to the bicycle facilities on Seaport Boulevard.

Completing this connection requires the extension of bicycle facilities on Seaport Boulevard / Northern Avenue between B Street and the Haul Road.

In addition to these design plans that will further improve the bicycle experience for Marine Park cyclists, a bicycle parking garage is under consideration at the Fid Kennedy Avenue/Tide Street intersection. This would provide a dedicated bicycle parking facility for personal bicycles, an amenity that does not exist under the current conditions.

1.6.2 Pedestrian Networks

Pedestrian Existing Conditions

Pedestrian accommodations in the RLFMP continue to improve. The existing sidewalk and crosswalk networks provide pedestrian-safe access at most intersections and in the less industrial areas of the Park. Conditions are highlighted at study area intersections in [Section 1.1.1 Roadways](#).

Due to the nature of industry in the RLFMP, sidewalks and pedestrian connections are isolated to the areas of the RLFMP with the least potential for conflict with trucks, accessing more industrial areas. Figure 37 shows the pedestrian infrastructure and its connections to nearby bus stops, parking lots, and bicycle parking facilities, as well as the connections to the greater South Boston Waterfront at the Northern Avenue and Summer Street gateway points.

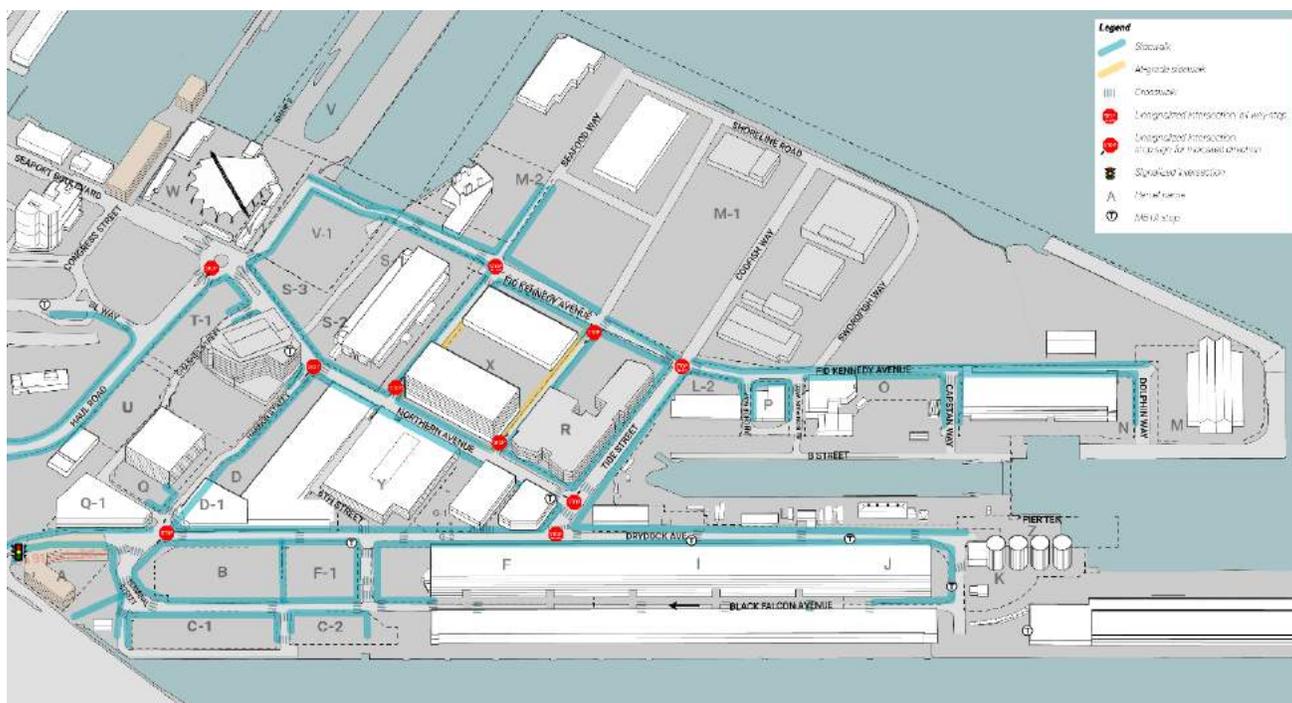


Figure 37: Pedestrian and multimodal infrastructure in the Park (source: BPDA)

All crossings in the Park are unsignalized, limiting the quantitative analysis that can be conducted, such as a Pedestrian Level-of-Service assessment which relies on crossing times to assess the comfort level pedestrians may experience along the corridor. Instead, this analysis looks at the physical infrastructure of the RLFMP. As shown in Figure 37, crosswalks and sidewalks exist in most parts of the Park south of Fid Kennedy Avenue.

The available sidewalk data within the Marine Park is limited, but shows the sidewalks range in width from 5.5 feet to over 10 feet. The City's plans to redesign and construct the roadways includes improving the physical pedestrian infrastructure to promote walking in the Park.

1.7 TRANSIT

The RLFMP is well-connected to the rest of the South Boston Seaport and Downtown Boston via the MBTA and private shuttle transit networks that serve the Park. The Silver Line 2 provides bus service

within the Park and connections to World Trade Center, Courthouse, and South Station. The MBTA Silver Line service, local bus routes, and private shuttles supported by the Seaport TMA and the Massachusetts Convention Center Authority (MCCA), as well as other area businesses, also serve the Park. One transfer to other transit services connect the Park to East Boston and Chelsea on the Silver Line 1, the South Boston neighborhood, and communities along the Red Line out of South Station, the Blue Line out of Aquarium, the Orange Line out of North Station, and commuter rail services out of both South Station and North Station. Figure 38 shows the existing transit network available in the South Boston Seaport and the RLFMP.

GoBoston 2030 set an ambitious transit mode share target of 50% of all trips, up 16% from the existing transit mode share across the City of 34%. The RLFMP's transit mode share in 2018 was also around 35%, but the auto trips to the RLFMP exceed those in the City at large. Given the industrial and marine nature of the RLFMP, a 40% transit mode share is set for the Park for this analysis.

To achieve a 40% transit mode share in the RLFMP, it is vital that the existing transit system be supplemented with additional service and connections. In 2020, the MBTA released a draft Silver Line Capacity Study. The report indicates that the Silver Line infrastructure, under existing conditions, cannot support more service without significant changes to the system.

The South Boston Seaport Strategic Transit Plan is evaluating a series of strategies to improve transit service to and within the South Boston Seaport and the Park. Recommendations will include bus lanes to prioritize transit, new connections to the Marine Park from Boston neighborhoods, and improved transit infrastructure throughout the South Boston Seaport and within the RLFMP. While recommendations are still under review, the breadth of strategies being evaluated can be found on the [project website](#). Once implemented, these strategies, along with pro-transit policies, will encourage transit ridership and move the City towards higher transit mode shares.



Figure 38: Transit routes in the South Boston Waterfront (source: BTD, MBTA)

1.7.1 Existing Conditions

MBTA Service

The MBTA Silver Line 2 acts as the RLFMP's primary transit service, making stops at key employment centers and destinations including the Design Center and Northern Avenue, throughout the day. The SL2 begins service at South Station and terminates at Drydock Ave at Design Center Place, via Courthouse, World Trade Center, Silver Line Way, and six other stops in the RLFMP primarily along Drydock Avenue at the Innovation and Design Center building. After exiting the transit way at Silver Line Way, the SL2 operates with general traffic and no priority.

In addition to the SL2, the Route 4 bus provides connections from North Station to Drydock Avenue, via South Station and Atlantic Avenue. The Route 4 does not receive priority at any point of its route. Table 16 identifies the MBTA services operating within the RLFMP.

Table 16: MBTA Service in the Raymond L Flynn Marine Park

Route	Origin-Destination	Headways	Daily Ridership
SL1	Logan Airport – South Station	8-13 minutes	7,411
SL2	Design Center – South Station	5-15 minutes	6,239
Route 4	North Station – Tide Street	16-25 minutes	388
Route 7	City Point – Otis and Summer Streets	3-24 minutes	4,797

In the recent years, the Silver Line has grown in popularity and ridership as the South Boston Seaport grows and develops. The MBTA published initial results from the Silver Line Capacity Study in 2020, with revealing details about development in the South Boston Seaport, Silver Line ridership, and constraints to the existing system, along with recommendations to provide for the future. The SL2 service increased its ridership over 250% between spring 2009 and spring 2018.

Exhibit 1 | Silver Line Historical Ridership

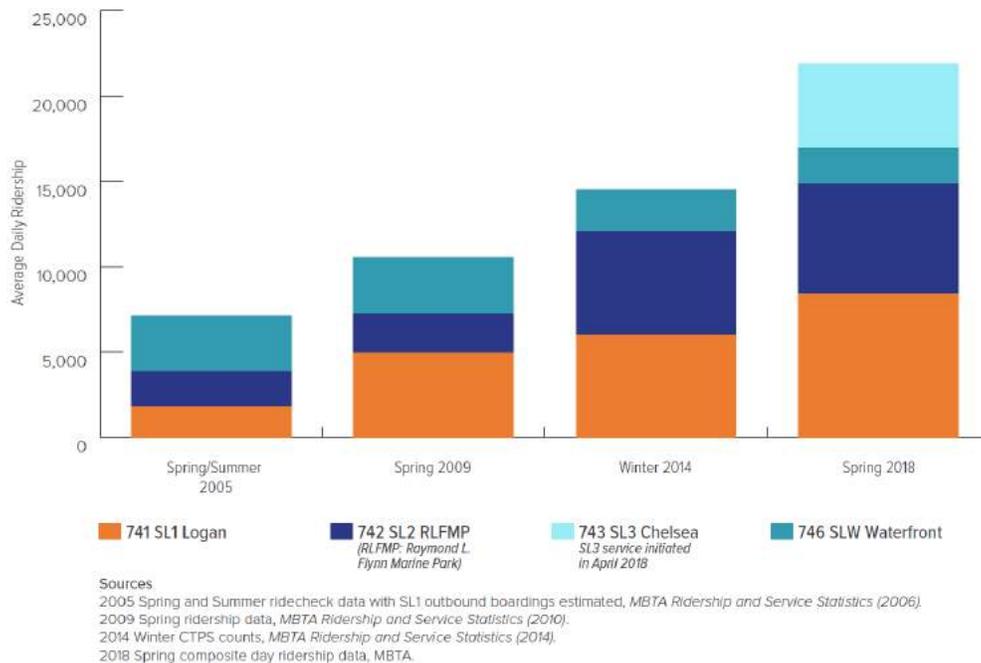


Figure 39: Silver Line Historical Ridership from Silver Line Capacity Study

The Silver Line Capacity Study uncovers that the existing 2018 peak demand across the Silver Line service within the South Boston Waterfront exceeds capacity. This shortage will only increase with more development in the Park and throughout the South Boston Waterfront. Additional transit capacity analyses (Table 17, Table 18, Table 19) detail other existing public transit services – the SL1, Route 4, and Route 7 buses – in the South Boston Waterfront and show that the capacity concerns are not limited to the SL2.

Table 17: Existing MBTA Capacity Analysis – Daily

Route	Inbound				Outbound			
	Daily Buses	Ridership	Capacity	Ridership/Capacity	Daily Buses	Ridership	Capacity	Ridership/Capacity
SL1	125	3,680	6,500	57%	128	3,731	6,656	56%
SL2	172	3,208	8,944	36%	130	3,031	6,760	45%
Rt4	16	226	1,056	21%	16	162	1,056	15%
Rt7	100	2,643	6,600	40%	88	2,155	5,808	37%

Table 18: Existing MBTA Capacity Analysis – AM Peak Hour

Route	Inbound				Outbound			
	AM Pk Buses	Ridership	Capacity	Ridership/Capacity	AM Pk Buses	Ridership	Capacity	Ridership/Capacity
SL1	15	361	780	46%	14	633	728	87%
SL2	24	216	1,248	17%	26	1,300	1,352	96%
Rt4	6	174	396	44%	5	30	330	9%
Rt7	36	1,580	2,376	67%	20	785	1,320	60%

Table 19: Existing MBTA Capacity Analysis – PM Peak Hour

Route	Inbound				Outbound			
	PM Pk Buses	Ridership	Capacity	Ridership/Capacity	PM Pk Buses	Ridership	Capacity	Ridership/Capacity
SL1	14	559	728	77%	15	520	780	67%
SL2	29	1,514	1508	100%	28	401	1,456	28%
Rt4	6	21	396	5%	6	97	396	25%
Rt7	21	334	1386	24%	23	571	1,518	38%

Private Shuttles

The 88 Black Falcon Shuttle (South Station > 88 Black Falcon) and Innovation and Design Center Shuttle (North Station > South Station > Innovation and Design Building) are the only private shuttles to operate in the RLFMP. VPNE operates both shuttles and both operations are limited to the building tenants.

Water Transit

Existing ferry service does not directly serve the Park but can be accessed from Fan Pier via the SL2 and Route 4 services. Ferry services currently connect to North Station with 20-minute headways during the AM and PM peak commuting hours.

1.7.2 Future No-Build Travel Assumptions

As was carried out for growth in traffic volumes, growth in transit trips was generated by assigning growth in total trips under No-Build conditions as a similar percentage of the growth in square footage between the Existing and No-Build condition. Trip growth was then assigned to individual modes of transportation in accordance with target mode shares addressed in the Go Boston 2030 long-range transportation plan.

This methodology is meant to strike a balance between:

- A precedent for driving observed in existing conditions; as cited in the South Boston Seaport Strategic Transit Plan driving trips make up 54% of AM commute (6:00 AM to 9:00 AM) mode share; and

- A target mode share to emphasize non-driving trips for future trips, using mode shares defined in Go Boston 2030.

Go Boston 2030’s target transit mode share is roughly 50%. As such, 50% of future trips in the travel network (the difference between Existing and No-Build trips, or approximately 13,100 AM commute trips) were assigned to transit with the remaining split between driving, walking, and bicycling. Given existing travel behavior, this means that transit ridership was assumed to grow by 87% to reflect the No-Build condition.

Table 20 below demonstrates this methodology:

Table 20: Growth in Transit Trips in the No-Build Condition

Condition	Square Feet	Total AM Commute Trips	AM Commute Transit Trips	AM Commute Driving Mode Share	Notes
Existing (2018)	31.2M	18,200	7,500	41%	2018 data cited for the South Boston Seaport Strategic Transit Plan
Projected New (excluding RLFMP)	22.5M	13,100	6,550	50%	Mode share target defined for transit by Go Boston 2030
No-Build	53.7M (+72%)	31,300 (+72%)	14,050 (+87%)	42%	87% growth in transit volumes between Existing and No-Build condition

* Numbers may not add due to rounding

Infrastructure projects with a firm funding commitment from the agency that has jurisdiction or identified as having a definitive plan for implementation by BPDA were incorporated into the analysis. As these projects are anticipated to be in place well before full buildout of the South Boston Waterfront and will occur regardless of future growth within the Park, they are included in the No-Build condition as a reflection of the background conditions to assess Park growth impacts.

BPDA and the BTDA, along with the MBTA and other stakeholders in the South Boston Waterfront transit realm, have long anticipated these capacity constraints. In 2016, the City, MassDOT, Massport, MCCA, MBTA and A Better City, released the South Boston Waterfront Sustainable Transportation Plan to develop solutions to solving the challenges in the South Boston Seaport and the RLFMP. The South Boston Seaport Strategic Transit Plan, a follow-up study that began in 2019, is preparing to release an actionable transit prioritization plan to support the transit network in the South Boston Seaport in spring 2021.

While few projects are expected to be completed in the No-Build scenario, many are presently under consideration which would directly benefit the Park. These efforts include:

- **Summer Street Bus/Truck Lanes** – dedicated lanes for bus and truck travel will be provided between Melcher Street and the Reserve Channel
- **Seaport Circulator** – this service, first proposed by the Seaport Transportation Management Association, will provide intra-neighborhood travel between the Park and the South Boston Waterfront, reducing dependence on the SL1, SL2, and Route 7 services

- **Nubian Square-RLFMP Shuttle Service** – developer mitigation associated with the 24 Drydock Avenue effort will provide shuttle service between Nubian Square and the Park
- **Pier 10 Revitalization** – the Seaport TMA and the Massachusetts Convention Center Authority (MCCA) are working construct a new pier at the end of Drydock Avenue and provide connecting ferry services to Fan Pier and downtown Boston, as proposed in the Boston Harbor Now Business Plan

Other recommendations from the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study that improve transit capacity to and within the RLFMP, as well as the South Boston Seaport as a whole. These efforts may include:

- A North Station/South Station/Seaport direct bus link
- South Station/Dorchester Avenue shuttle bus transfer upgrades
- New bus service connections to the Park including Andrew Square via D Street and South Station via the Park
- Consolidation of private shuttles
- Fleet expansion and/or bus platooning for SL1 and SL2 services
- Installing transit signal priority or half-cycling the Transitway/D Street signal for SL1 and SL2 services, or eliminating this at-grade intersection
- Installing transit signal priority and queue jump lanes at South Boston Waterfront intersections, where applicable
- Expanding local and regional ferry services
- Extending transit service along Track 61 to the Park
- New bus connection along A Street from Broadway Station

As these improvements may be present in the No-Build condition but are not reflected in the capacity analyses, the analysis should be considered a conservative estimate of transit conditions under the No-Build condition. Table 21, Table 22, and Table 23 represent the No-Build capacity analysis, assuming a 106% increase in transit ridership and no transit improvements.

Table 21: No-Build MBTA Capacity Analysis – Daily

Route	Inbound				Outbound			
	Daily Service	Ridership	Capacity	Ridership/Capacity	Daily Service	Ridership	Capacity	Ridership/Capacity
SL1	125	6,882	6,500	106%	128	6,977	6,656	105%
SL2	172	6,000	8,944	67%	130	5,668	6,760	84%
Rt4	16	423	1,056	40%	16	303	1,056	29%
Rt7	100	4,943	6,600	75%	88	4,029	5,808	69%

Table 22: No-Build MBTA Capacity Analysis – AM Peak Hour

Route	Inbound				Outbound			
	AM Pk Service	Ridership	Capacity	Ridership/Capacity	AM Pk Service	Ridership	Capacity	Ridership/Capacity
SL1	15	676	780	87%	14	1,185	728	163%
SL2	24	404	1,248	32%	26	2,431	1,352	180%
Rt4	6	326	396	82%	5	57	330	17%
Rt7	36	2,956	2,376	124%	20	1,470	1,320	111%

Table 23: No-Build MBTA Capacity Analysis – PM Peak Hour

Route	Inbound				Outbound			
	PM Pk Service	Ridership	Capacity	Ridership/Capacity	PM Pk Service	Ridership	Capacity	Ridership/Capacity
SL1	14	1,046	728	144%	15	974	780	125%
SL2	29	2,832	1,508	188%	28	751	1,456	52%
Rt4	6	40	396	10%	6	183	396	46%
Rt7	21	625	1,386	45%	23	1,069	1,518	70%

1.8 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management refers to strategies employed at the property or community-level to encourage non-drive alone travel. Given the limited roadway capacity in the South Boston Waterfront and the surrounding Boston region, TDM measures aim to limit traffic congestion by making travel by transit, bicycling, or walking easier or incentivized. Measures may also be targeted at encouraging carpooling, promoting flexible work hours which reduce the need to travel during peak traffic periods, or advocating for telecommuting.

Support for TDM programming in the Park is needed to prevent future growth in vehicle travel within the study area. As many development projects in the South Boston Waterfront and throughout the City of Boston are implementing TDM strategies into site design and ongoing property management, more potential users of multimodal travel networks are increasingly being provided the resources to meet their travel needs without an automobile. Given restrictions on parking in the Park and the limited roadway capacity of the transportation network when accounting for the full buildout of the South Boston Waterfront, all new growth in the Park must facilitate travel by non-drive alone modes.

In the Park, TDM strategies are typically offered at the property-level. All development projects subject to Article 80 review (greater than 50,000 square feet) in Boston must codify TDM commitments as part of a Transportation Access Plan Agreement (TAPA); currently, new projects must commit to measures such as providing bicycle parking, providing car share parking, and offering pre-tax transit benefits through participation in the MBTA's Perq program. The BTDA is introducing a TDM Point System initiative to obligate development projects to meet performance targets for TDM; this effort is aimed at ensuring that new projects implement highly-successful strategies such as transit subsidies, bicycle parking provision, and parking pricing.

This section reviews ongoing City efforts to support non-drive alone travel and proposes TDM strategies which are anticipated to have specialized effectiveness given travel conditions in the Park. In combination with the TDM Point System, development review of future projects in the Park will encourage implementation of these strategies. Mode share targets similar to those set forth in Go Boston 2030 are also profiled in this section.

1.8.1 Current Measures

Development projects in the Park are required to meet TDM requirements set by the City of Boston. Employers, property managers, and land developers in the Park are eligible to join the Seaport TMA, which supports these parties in practicing sound TDM management. The Seaport TMA works throughout the South Boston Waterfront to improve transportation accessibility and incentivize sustainable commute options. These activities are carried out through activism of projects and provision of programs which encourage non-drive alone commute. These programs include:

- Vouchers for guaranteed rides home

- Carpool matching
- Short-term subsidies for transit passes for those switching to this mode of travel
- Marketing and promotional events, including free tune-ups for bicyclists
- Car sharing discounts

Development projects recently constructed or currently under review provide insight on the types of TDM measures employed with these new projects as requested during Article 80 review, as well as through the MEPA review process.

2 Harbor Street⁷

- Designation of an on-site transportation coordinator to:
 - Oversee parking operations
 - Manage, communicate, and promote use of alternative transportation measures
 - Develop orientation packets
 - Oversee loading/delivery operations
- Join the Seaport TMA
- Provision of transit information
- Provision of ride matching services
- Provision of secure enclosed and short-term bicycle parking spaces
- Encouragement of Bluebikes corporate memberships
- Provision of 50% transit subsidy for on-site management and maintenance staff through the MBTA's Perq program
- Encouragement of carshare corporate membership
- Provision of on-site lockers and showers
- Work with the City to install a Bluebikes station near the site
- Provision of 5% on-site vehicle charging spaces with an additional 10% constructed as EV-ready
- Charging market rates for on-site parking

Parcel Q1⁸

- Designation of an on-site transportation coordinator to:
 - Oversee parking operations
 - Manage, communicate, and promote use of TDM measures
 - Oversee loading/delivery operations
- Join the Seaport TMA
- Provision of on-site transit pass sales
- Encourage tenants to participate in MBTA Perq Program
- Encourage tenants to subsidize transit passes
- Encourage tenants to promote flextime policies and telecommuting
- Provision of parking spaces for a shared car service
- Provision of informational packet of commuting alternatives
- Provision of a Guaranteed Ride Home Program
- Provision of a periodic newsletter or bulletin summarizing alternative commute options
- Provision of preferential parking for carpools, vanpools, and other high-occupancy vehicles

Innovation Square at Northern Avenue

- Posted transit information and materials in public areas
- Assist in carpool matching
- Provide preferential convenient parking for carpools as practicable
- Bicycle parking provision

⁷ 2 Harbor Street PNF, November 2019

⁸ Parcel Q1 TAPA, April 2018

1.8.2 Future No-Build Travel Assumptions

Development Review Efforts Underway by BTD

Future development projects subject to Article 80 review will need to comply with the TDM Point System currently under development by BTD. The Point System will obligate development projects to select from a menu of TDM strategies in order to satisfy a predefined Mobility Score target. Strategies are expected to be a mixture of required and elective measures, with the Point System as a whole constructed to encourage development projects to reduce and/or price parking resources, facilitate transit use such as through subsidies, and encourage bicycle travel. The composition of the Point System is expected to be finalized in 2021 and rolled out on a pilot basis, with new development projects entering the Article 80 pipeline subject to its requirements.

The BTD’s Bike Parking Guidelines, updated in January 2020, provide regulations for visitor parking, employee and resident parking, provision of showers and changing facilities, and bikeshare contributions for new development projects. Rates for provision of these elements are defined in Figure 40:

	BUILDING USE	VISITOR PARKING SPACES [†] (short-term)	EMPLOYEE/ RESIDENT PARKING SPACES [†] (long-term)	SHOWERS [‡]	LOCKERS [‡]	BIKESHARE STATIONS [§]	BIKESHARE CONTRIBUTION
RESIDENTIAL	1 to 3-Unit	N/A	1 per unit	N/A	N/A	N/A	N/A
	Multi-Unit (4 or more units)	1 per 5 units (4 minimum)	1 per unit	N/A	N/A	Space for a 15-dock or 19-dock station	\$275 per unit (\$75K or \$49K minimum)
	Institutional Housing (College, university, and other)	1 per 20 beds (4 minimum)	1 per 2 beds	N/A	N/A	Space for a 15-dock or 19-dock station	\$137.50 per bed (\$75K or \$49K minimum)
NON-RESIDENTIAL	Office/Admin	1 per 20,000 sf (6 minimum)	1 per 2,500 sf	1 per 60,000 sf (1 minimum)	1 per 6,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.28 per sf (\$75K or \$49K minimum)
	Industrial	1 per 40,000 sf (6 minimum)	1 per 12,000 sf (6 minimum)	1 per 480,000 sf (1 minimum)	1 per 48,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.10 per sf (\$75K or \$49K minimum)
	Retail	1 per 5,000 sf	1 per 3,000 sf	1 per 60,000 sf (1 minimum)	1 per 6,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.37 per sf (\$75K or \$49K minimum)
	Institutional [¶]	1 per 2,500 sf	1 per 2,500 sf	1 per 20,000 sf (1 minimum)	1 per 2,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.42 per sf (\$75K or \$49K minimum)
	Lodging (Hotels, motels, inns, hostels)	1 per 20,000 sf (6 minimum)	1 per 5,000 sf	1 per 20,000 sf (1 minimum)	1 per 2,000 sf (1 minimum)	Space for a 15-dock or 19-dock station	\$0.35 per sf (\$75K or \$49K minimum)

* Each post-and-ring or U-rack provides 2 bike parking spaces.

† At least 20% of required spaces must be on-ground and secured with post-and-ring or inverted U racks. At least 5% of required spaces (no less than two) must be both on-ground and extra-wide. Each post-and-ring or inverted U rack provides 2 bike parking spaces. All other spaces may be secured via via two-tier racks, which provide a variable number of spaces.

‡ May be substituted with free access to showers and lockers at an on-site health club or gym that can be accessed without going outside.

§ The 19-dock requirement applies to projects in neighborhoods with high anticipated ridership: Downtown, West End, North End, Beacon Hill, Leather District, Chinatown, Bay Village, South End, Back Bay, Fenway, Longwood Medical Area, and the areas identified for neighborhood expansion in Imagine Boston 2030. The 19-dock requirement also applies to projects for which the calculated bikeshare contribution exceeds \$48K. The 15-dock requirement applies to all other developments.

|| The higher, \$75K contribution applies to projects in neighborhoods with high anticipated ridership (see above) and projects for which the calculated contribution exceeds \$48K.

¶ Includes academic, medical, and civic buildings. Rates for these institutional uses and all others uses not listed should be determined in consultation with BTD.

Figure 40: Bike Parking Guidelines for new development projects (source: BTB)

1.8.3 Future Build Travel Assumptions

The Go Boston 2030 long-range transportation plan details long-term aspirations by the City to improve safety, expand access of multimodal services, reduce car use, and reduce emissions. Mode share targets from Go Boston 2030 were evaluated for appropriateness to the RLFMP, given the concentration of industrial land uses which feature employee shifts that can start or end outside of high-frequency transit operating hours. The following mode share goals are presented for the RLFMP:

Table 24: Mode Share Data and Future Targets

Mode	2014 Citywide Data ⁹	2030 Citywide Target ¹⁰	2018 RLFMP Data ¹¹
Drive Alone	39%	~20%	~60%
Transit	34%	~45-50%	35%
Bike/Walk	16%	~25-30%	5%
Carpool	6%	~0-5%	N/A
Work From Home	5%	~5-10%	N/A

Note that 2018 RLFMP data does not include carpool or work from home figures and likely overestimates usage rates for drive alone, transit, and bike/walk

The targets presented in this Chapter reflect the nature of some RLFMP businesses, which feature work shifts beginning and/or ending during off-peak periods or outside of transit hours and for which automobile travel must remain a primary source of access. The need to be physically present at many of these businesses also helps explain the differences between mode share targets for the Park and the South Boston Waterfront area as a whole.

An anticipated increase in work from home in response to long-term travel trends was expressed by survey recipients throughout the South Boston Waterfront collected in 2020 by the Seaport TMA¹² during the COVID-19 pandemic. Surveys conducted by PwC¹³ and Upwork¹⁴ indicate that long-term work from home projections may approach 40%. As discussed in the Roadway section, a conservative analysis of future travel conditions was put forward which disregarded increases in work from home travel.

Favored Strategies

To bring about the mode share targets identified in this section, particular TDM strategies are expected to be pushed as part of new development projects. Each of these strategies is included in the forthcoming TDM Point System, incentivizing selection of these criteria by developers:

- **Parking pricing, unbundling, and cashout:** these strategies are aimed at incentivizing multimodal travel by incentivizing this behavior (via unbundling parking from leases and cashout for not using on-site parking) or penalizing motorists with a parking charge. These strategies are anticipated to be prioritized as part of the TDM Point System project.
- **Transit subsidies:** lessening the cost of transit use can serve to attract new riders to these services; the MBTA's Perq Program allows employers to provide transit passes (subsidized or unsubsidized) to employees without the cost being subject to tax. This strategy is anticipated to be prioritized as part of the TDM Point System project.
- **Bus stop enhancements:** provision of shelters (if feasible) and amenities to improve passenger comfort will afford transit riders more respectful accommodations; other amenities such as expected bus arrival times could also be provided.

⁹ Go Boston 2030

¹⁰ Go Boston 2030

¹¹ South Boston Seaport Strategic Transit Plan

¹² Conversation with Patrick Sullivan, Executive Director, Seaport TMA

¹³ <https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html>

¹⁴ <https://www.upwork.com/press/releases/the-future-of-remote-work>

- **Carpooling:** incentives to promote carpooling, including employer-provided matching programs and preferential parking, can reduce drive-alone commutes, particularly for employees with shifts outside of high-frequency transit operating hours. A carpool matching service is currently offered by the Seaport TMA.
- **Guaranteed ride home:** direct provision of rides or reimbursement of rideshare costs for employees requiring transportation outside of transit operating hours (such as through an emergency or if asked to work late) provides comfort that use of transit and other multimodal services will not limit the potential travel needs of users. The Seaport TMA currently provides reimbursement for four rides each year as part of its guaranteed ride home program.

The City is already prioritizing strategies to reduce drive alone commuting through the design of recent roadway projects and as part of development review efforts. For example, as discussed in the Transit section an agreed-upon commitment of the 24 Drydock Avenue will introduce direct shuttle bus services between the RLFMP, the South Boston Waterfront, and Nubian Square.

1.9 ALTERNATIVES ANALYSIS – COMPARATIVE TRANSPORTATION IMPACTS

Several anticipated transportation infrastructure projects and policy actions are aimed at improving access to and from the Park via transit, walking, and biking modes, emphasizing freight movements, and discouraging vehicle travel. Collectively, these projects will shift vehicle and freight travel away from more densely-populated corridors inside and outside the Park with high levels of walking and bicycling activity. Connectivity between the Park and other parts of the South Boston Waterfront, as well as the regional highway networks, will be maximized with new roadway connections and existing intersection improvements.

With an anticipated marine industrial buildout of more than one million square feet in both Build scenarios, improved access to existing and future development parcels will support the success of these enterprises and the economic vitality of the Greater Boston region.

Key takeaways from these future infrastructure projects include:

- The orientation of the Haul Road/Summer Street/Drydock Avenue Connector and Northern Avenue/Haul Road/Fid Kennedy Avenue Reconfiguration projects will encourage more freight travel along the Haul Road corridor at the expense of the more heavily-populated Northern Avenue and Summer Street corridors.
- The new Haul Road/Summer Street/Drydock Avenue Connector will allow for easier vehicular access to the Park from the Mass Pike and I-93, potentially diverting traffic from the Northern Avenue corridor.
- Use of Haul Road for vehicle access to the Park will allow for improved transit and freight operations to the Park for the more imminent Summer Street Bus/Truck Lanes.
- The reconfiguration of Fid Kennedy Avenue and geometric improvements north of the Northern Avenue/Haul Road/Fid Kennedy Avenue intersection will better facilitate freight access to the Massport Marine Terminal.
- The Northern Avenue Reconstruction project will prioritize safety for pedestrian and bicycle movements with truck traffic diverted to Fid Kennedy Avenue.

- The E Street Connector Project and Cypher Street to E Street Connector Project will shift trucks from D Street to E Street and provide redundant access from the South Boston Bypass Road to Haul Road, de-emphasizing use of D Street, Summer Street and Northern Avenue for freight access.
- Retaining existing parking ratios for marine industrial uses is responsive to the travel needs for employees and freight users of these businesses; parking ratios for non-marine industrial uses will be monitored and adjusted by BPDA as the managing agency.
- Subjecting future non-marine industrial projects to Article 80 review in the Park will ensure that the majority of the parking supply remains under the jurisdiction of BPDA via a centralized approach.
- Several transit projects under consideration as part of the Silver Line Capacity Study and South Boston Seaport Strategic Transit Plan will address anticipated growth in transit demand to the Park and the South Boston Waterfront neighborhood.

Roadway/Freight

Northern Avenue/Haul Road/Fid Kennedy Avenue

The Northern Avenue/Haul Road/Fid Kennedy intersection is the best positioned of the Park gateways to serve freight interests. Fid Kennedy Avenue was rebuilt in 2017 to provide more formal access from this intersection in order to divert truck traffic from Northern Avenue east towards Tide Street. Fid Kennedy Avenue's access to the Massport Marine Terminal and other industrial businesses positions it to attract truck traffic entering the Park via Haul Road or Northern Avenue.



Figure 41: A long-term condition of the RLFMP shifts industrial uses to north of Northern Avenue, emphasizing Fid Kennedy Avenue's purpose as a truck route and shifting truck traffic away from the Drydock Avenue, Harbor Street, and Tide Street corridors. (source: 2017 RLFMP DMPU)

The present challenge with this intersection is its configuration. The Fid Kennedy Avenue approach is offset from both Haul Road and Northern Avenue and, while accommodating two-way travel, its 20-foot curb-to-curb width is the minimum feasible for bi-directional truck movements. Mitigation anticipated with the 2 Harbor Street development on the south side of the intersection will contribute towards reconfiguring this intersection from a roundabout to a safer, more efficient signalized intersection. Haul Road will be re-aligned to better meet the Fid Kennedy Avenue approach.

In the future, a nearly 90 degree right turn along Fid Kennedy Avenue north of the intersection is also proposed to be made less sharp. These improvements are expected to further enhance Fid Kennedy Avenue's viability as a freight corridor.

Summer Street/Drydock Avenue/Pappas Way

The Summer Street/Drydock Avenue/Pappas Way intersection can be challenging for trucks, owing to Drydock Avenue's curvature just north and east of the intersection and the nature of businesses in this section of the Park. Freight movements entering the Park via this intersection also do not have direct access to Haul Road. Truck traffic from elsewhere in the South Boston Waterfront and the commercial and industrial uses between Summer Street and West First Street also have poor access to Haul Road; the only connection is via Pumphouse Road, an isolated corridor less than 300 feet in length.

Two projects are aimed at addressing this deficiency. The proposed extension of Cypher Street to connect with E Street, and the extension of E Street from Fargo Street to meet the Summer Street/Pumphouse Road intersection, will divert truck traffic from D Street and allow for redundant access between the South Boston Bypass Road and Northern Avenue. This project will facilitate better access for trucks destined for the Park from south and west of Summer Street to access the Park via Haul Road. The E Street Connector project will have the ancillary benefit of discontinuing the Fargo Street connection with Summer Street. As there is no timeframe for this discontinuance; the connection remains in the Mitigated Build scenario detailed in the next section. This project is currently at a 75% design stage.

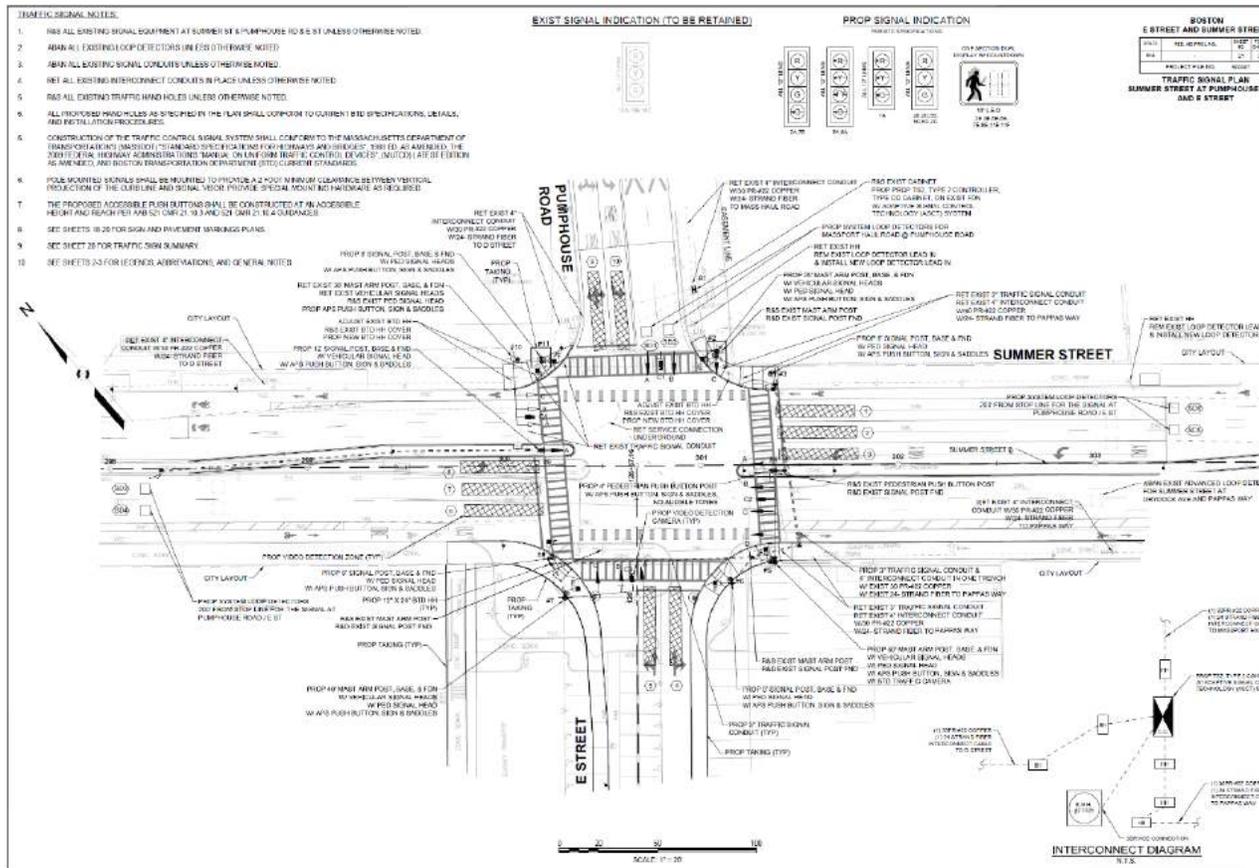


Figure 42: The extension of E Street to meet Pumphouse Road will encourage trucks to access RLFP via Haul Road rather than via the Summer Street/Drydock Avenue/Pappas Way intersection (source: MassDOT)

A second project involves construction of a connection road between Haul Road, Summer Street and Drydock Avenue. Development projects have been designed to retain a right-of-way between Haul Road and Drydock Avenue and future improvements will facilitate this connection as a four-way intersection, with the southern leg connecting to the Summer Street/Pappas Way intersection. This project would also encourage general vehicle traffic to access the Park without traveling through the Northern Avenue/Haul Road/Fid Kennedy Avenue intersection. Most truck traffic is expected to continue to remain on Haul Road and primarily enter the Park via the Northern Avenue/Haul Road/Fid Kennedy Avenue intersection.



Figure 43: Connecting Haul Road with Drydock Avenue will shift access along the Drydock Avenue corridor from Summer Street to Haul Road, in combination with the anticipated E Street Connector (source: BPDA and Massport)

Once complete, these projects will position Haul Road as the primary means of freight access to the Park from the Mass Pike and I-93. South and west of the study area, the South Boston Bypass Road, originally constructed for freight access only, now allows unrestricted travel in the eastbound direction between I-93 Frontage Road and Cypher Street and in both directions north of Cypher Street. Two separate pilot periods with this new configuration showed that with general traffic, travel times were not reduced and travel lanes operated under capacity.

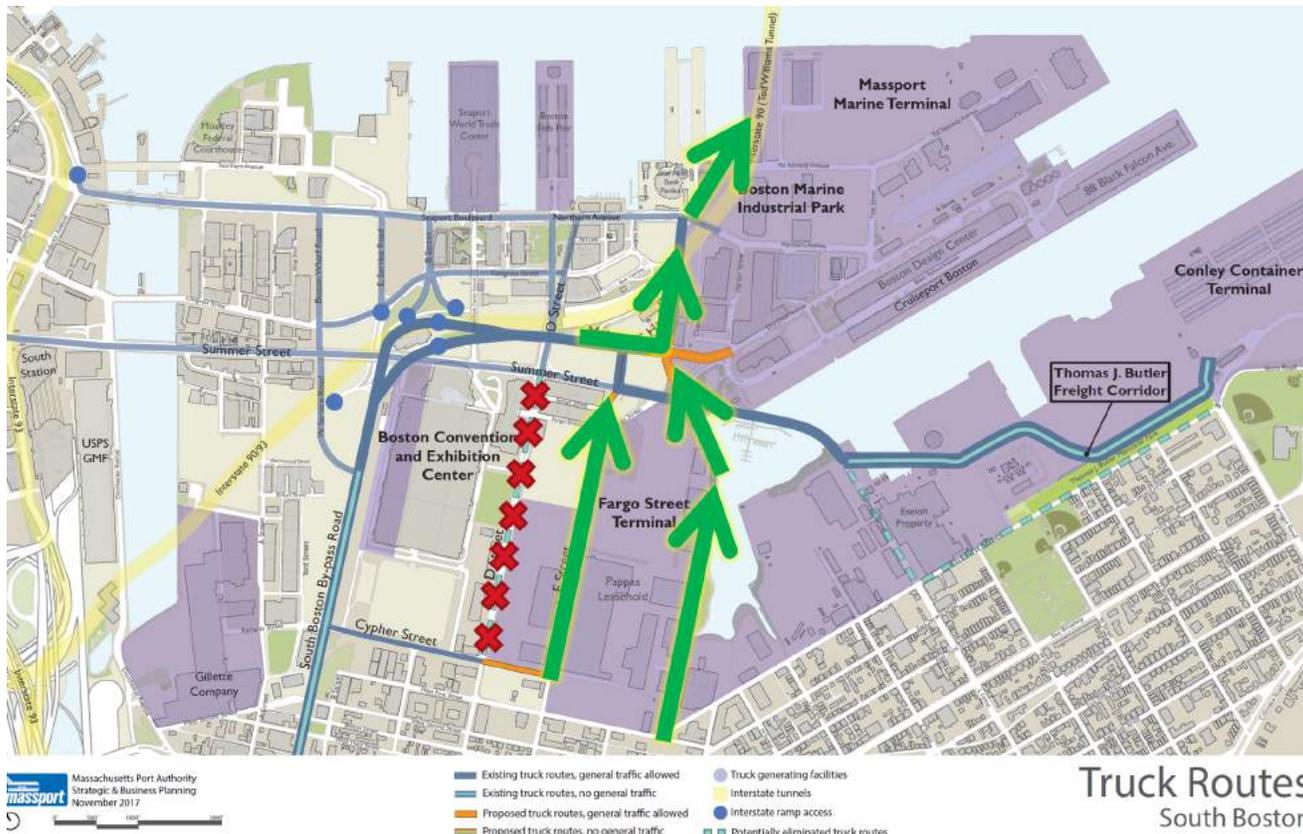


Figure 44: Anticipated future truck movements will emphasize E Street and Fido Kennedy Avenue as access points, and facilitate the removal of D Street as a truck route (basemap source: Massport)

Broader Vehicle Travel

Collectively, as more capacity is added to the roadway network, vehicles will have several means to access the RLFMP. A comprehensive accounting of how vehicle travel destined to and from the Park or traveling to and from other parts of the South Boston Waterfront is outside the scope of the analysis called for by the MEPA certificate. Vehicles will likely adjust to the new traffic configurations to split access between the Haul Road/Summer Street/Drydock Avenue and Northern Avenue/Haul Road/Fido Kennedy Avenue gateways. Signal timings at each intersection will be coordinated to the extent practicable for efficient vehicle operations.

Parking

With increased development, parking demand is expected to increase. The BPDA is committed to continuing the practice of maintaining a majority shared parking system, overseen and regulated by the Agency. This control allows the Agency to monitor parking prices and regulate pricing when needed to adjust demand within the Park and keep the supply under the permitted cap of 4,336 spaces.

Maintaining a parking supply within the cap set forth by the parking freeze is possible through permitting regulations and parking ratios. BPDA will maintain sole control of parking in the RLFMP (not owned by Massport) and will encourage developments to use shared parking rather than approach the Parking Freeze Bank individually. This will be further addressed in the Article 80 process for all future developments. As for the parking ratios for Park development, the Agency will maintain the existing parking ratio of 0.65 parking spaces per 1,000 square feet of marine industrial space, to provide for the maritime industry that relies on parking due to limited transit availability. The parking ratio for the general

industrial and commercial space within the Park is subject to change, to meet the agency's TDM goal of shifting to alternative means of transportation and limiting the demand for parking supply.

Active Transportation

The most significant improvement for bicyclists and pedestrians within the Park will be achieved by the Northern Avenue Reconstruction project, which will move forward in a No-Build condition. Once roadway and freight improvement projects are in place, the Northern Avenue corridor within the Park will facilitate safe bicycle and pedestrian access from intra-Park locations north and west to the Northern Avenue corridor and Downtown Boston with less conflicts with freight travel than at present.

Protected bicycle accommodations along Summer Street and a potential bicycle parking garage at the Fid Kennedy Avenue/Tide Street intersection will also support improved bicycle access to and within the Park.

Any roadway improvement projects, including construction of the Haul Road/Summer Street/Drydock Avenue Connector, will be subject to City of Boston standards for equal priority during the design process between pedestrian, bicyclist, transit, and vehicle users.

Transit

Transit users will be served under the No-Build condition by the Summer Street Bus/Truck Lanes, which will significantly improve transit operations along the Summer Street corridor for the existing Route 7 service as well as potential future services, such as the North Station/South Station/Seaport direct bus link.

The ongoing South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study each identify several mid and long-term improvements to improve transit services in the Seaport. The City of Boston will work closely with MBTA, MassDOT, and other affected stakeholders to advance these improvement options in order to improve transit operations in the South Boston Waterfront and within the RLFMP. Future development projects in the Park subject to Article 80 review will be required to ensure that users can access project sites via transit services; this mechanism ties future development with broader progress towards implementation of these ideas.

Facilitating transit access for Park-generated growth under FAR 2.0 and FAR 4.0 buildout remains the primary focus for non-freight travel in a future condition.

Options identified for further study, planning, and future implementation include:

- A North Station/South Station/Seaport direct bus link
- South Station/Dorchester Avenue shuttle bus transfer upgrades
- New bus service connections to the Park including Andrew Square via D Street and South Station via the Park
- Consolidation of private shuttles
- Fleet expansion and/or bus platooning for SL1 and SL2 services
- Installing transit signal priority or half-cycling the Transitway/D Street signal for SL1 and SL2 services, or eliminating this at-grade intersection
- Installing transit signal priority and queue jump lanes at South Boston Waterfront intersections, where applicable
- Expanding local and regional ferry services
- Extending transit service along Track 61 to the Park
- New bus connection along A Street from Broadway

1.10 MITIGATED BUILD ANALYSIS

To construct the Mitigated Build analysis, roadway volumes associated with FAR 4.0 buildout were first assigned to the roadway network under the same trip distributions as conducted for the FAR 2.0 Build analysis. All study area roadway volumes were then re-assigned to reflect new roadway configurations discussed in Section 1.9. These projects include:

- **Haul Road/Summer Street/Drydock Avenue Connector** – a roadway connector between Haul Road, Summer Street and Drydock Avenue to provide more direct access to the Park from Haul Road, the Mass Pike, and I-93 and lessen dependence upon the Northern Avenue corridor inside and outside the Park. In addition to this new intersection, a realigned Summer Street/New Road/Pappas Way intersection is incorporated into the analysis in accordance with the design shown in Figure 32.
- **Northern Avenue/Haul Road/Fid Kennedy Avenue Improvements** – signalization and reconfiguration of the Fid Kennedy approach to this intersection will facilitate truck access to marine industrial uses associated with the Massport Marine Terminal.
- **E Street Connector** – north/south freight access through the South Boston Waterfront better emphasizes use of Haul Road as a freight corridor and removes heavy vehicles from the more densely-developed D Street and Northern Avenue corridors leading to the Park. Although not included as part of the No-Build and FAR 2.0 scenarios, a left-turn lane has been re-introduced along the Summer Street eastbound approach at this intersection to support vehicle operations; left turn lanes are also present at the eastbound approaches at the Summer Street/D Street and Summer Street/New Road/Pappas Way intersections.

. Volume assignments were carried out based on:

- Logical vehicle flows throughout the roadway network given the desire for shortest vehicle travel time.
- Leveling off of individual lane volumes to spread out system impacts

It must be emphasized that this analysis is not put forward as a comprehensive accounting of how future traffic will operate in the South Boston Waterfront. A more advanced simulation software is required for this level of analysis as well as a multi-agency effort to identify how all modes of travel (including transit, bicycling, and walking) can be best incorporated into a future roadway network. These are not requests of the MEPA certificate for the FMPU.

In any future condition, infrastructure projects will be constructed so as to best balance the travel needs of vehicle, freight, transit, pedestrian, and bicycle users. The projects proposed as part of the Mitigated Build condition emphasize freight access to the Park, especially where heavy trucks can be diverted from Northern Avenue (both inside and outside the Park) and D Street where more foot traffic is present. Transit, pedestrian, and bicycle access are emphasized above vehicle access given the vision stated as part of the Go Boston 2030 long-range plan. Driving as access to the Park is anticipated to be less emphasized as part of future infrastructure efforts in the South Boston Waterfront; many of the poor operations observed in the Mitigated Build analysis stem from this reality.

At present, the Summer Street Bus/Truck Lanes are the only project in the FAR 4.0 buildout condition anticipated to be present regardless of future growth in the RLFMP. The E Street Connector project is at the 75% design stage. All other projects in the Mitigated Build analysis have not advanced beyond a conceptual planning stage.

Management/Use of Roadways

As noted in the Alternatives Analysis – Comparative Transportation Impacts section, defined routes of travel for freight, vehicle, bicycle, pedestrian, and transit users are emphasized in the projects included in the Mitigated Build condition. Use of Summer Street as a transit and freight corridor, Haul Road as a freight and vehicle corridor providing highway access to the Park, Northern Avenue as a bicycle and pedestrian corridor (particularly in the Park), and Fid Kennedy Avenue as a freight corridor are each anticipated with future buildout of the Park.

These intended uses correspond with agency management of study area roadways, including Massport jurisdiction of Pumphouse Road and Haul Road east of Pumphouse Road and MassDOT ownership of Haul Road west of Pumphouse Road.

The introduction of a Haul Road/Summer Street/Drydock Avenue modified gateway intersection provides redundant access to the Park and allows for motorists accessing the Park from the north and east to better access each gateway, easing travel impacts associated with events at the Leader Bank Pavilion and Flynn Cruiseport Boston. When events do occur during peak commuting periods, travel between the three future gateway intersections will better spread impacts. Many of these special events occur outside of peak travel periods, including weekend events at the Leader Bank Pavilion and Harpoon Brewery.

Plans to Convey Right-of-Way Within RLFMP to the City of Boston or Others

Given the future emphasis of the Fid Kennedy Avenue corridor as a gateway for freight access, with other intersections oriented more towards general vehicular and multimodal travel, BTDC and BPDA/EDIC have broached transferring jurisdiction of the Drydock Avenue, Tide Street, and Northern Avenue corridors within the Park from BPDA/EDIC to BTDC jurisdiction. Additionally, roadways present within the Massport Marine Terminal may be considered for transfer from BPDA/EDIC to Massport.

Transfers of jurisdiction would be targeted towards ensuring proper management of Park roadways given intended future uses as well better arrange funding for improvements.

Mitigated Build Operational Methodology

The operational methodology for the Mitigated Build condition follows the same process outlined in Build Operational Methodology section. FAR 4.0 growth in the Park is reflected in the Mitigated Build condition, which includes all growth included in the FAR 2.0 condition.

Unadjusted ITE Vehicle Trips

The FAR 4.0 program for the Park is described in Table 25. This program includes all development which has come online in the Park since 2018 (the year cited for the Existing Conditions analysis), all approved development as of this report's publication, and FAR 2.0 growth.

Table 25: Unadjusted Trip Generation – FAR 4.0

Land Use	Square Feet/Rooms	Person Trips
Research & Development	4,470,537	59,399
Marine Industrial	1,303,622	9,066
Hotel	316,500 (411 rooms)	3,436
Office	211,700	2,433
Retail	21,900	1,505
Commercial	7,200	522
TOTAL	6,331,851	76,654

Unadjusted vehicular trips were adjusted to person trips by applying an average vehicle occupancy factor of 1.18 persons per vehicle for research & development and office trips and 1.82 persons per vehicle for retail and commercial trips. These factors were applied to the unadjusted trip rates. These factors were obtained from 2017 national vehicle occupancy rates; no calculations were available for hotel trips and the use of empirical data for marine industrial trips negates the need for additional adjustment. Empirical data was used for the marine industrial growth as described in Roadway section.

Mode Share

Person trips were then separated into modes. To keep consistent with the No-Build methodology and reflect City of Boston long-term transportation visioning, Go Boston 2030 mode share targets (25% driving, 50% transit, and 25% walking/biking) were applied to each land use with the exception of marine industrial, where all trips were estimated to be by private automobile. Citing only vehicle trips for marine industrial uses ensures that trucks are accurately reflected as part of marine industrial growth in line with existing truck figures observed in the study area.

Table 26: Mode Share – FAR 4.0

Land Use	Person Trips	Auto Person Trips	Transit Trips	Walk/Bike Trips
Research & Development	59,399	14,850	29,700	14,850
Marine Industrial	9,066	9,360	0	0
Hotel	3,436	859	1,718	859
Office	2,433	608	1,217	608
Retail	1,505	356	752	356
Commercial	522	130	261	130
TOTAL	76,654	26,184	33,647	16,824

Project-Generated Vehicle Trips

Auto person trips were then converted to vehicle trips by reverting the average vehicle occupancy factors which had been applied to the unadjusted trip rates. Table 27 summarizes the adjusted vehicle trips generated by the FAR 4.0 growth by land use, citing in and out data referenced for each land use by ITE and empirical data for marine industrial uses. Vehicle occupancy rates by land use were inputted into the unadjusted totals to create the adjusted vehicle trip figures.

Table 27: Project Generated Vehicle Trips - FAR 4.0

Project Generated Vehicle Trips							
	Daily	AM Peak			PM Peak		
	TOTAL	TOTAL	IN	OUT	TOTAL	IN	OUT
Research & Development	12,585	469	352	117	548	82	465
Marine Industrial	9,066	469	240	229	352	170	182
Hotel	859	69	41	28	91	47	45
Office	515	61	53	9	61	10	51
Retail	207	5	3	2	21	10	11
Commercial	72	2	1	1	7	3	4
TOTAL	23,597	1,076	790	386	1,080	322	758

All study area roadway volumes were then assigned to the Build network using the same trip distributions cited for the FAR 2.0 analysis.

Trip Distribution

FAR 4.0 growth was then re-assigned to reflect new roadway configurations. Assignments were carried out based on:

- Logical vehicle flows throughout the roadway network given the desire for shortest vehicle travel time.
- Leveling off of individual lane volumes to spread out system impacts

For instance, although a new Haul Road/Summer Street/Drydock Avenue intersection may divert movements between the Summer Street/Pumphouse Road intersection and RLFMP from the Summer Street corridor to the Haul Road corridor via Pumphouse Road, the limited capacity of Pumphouse Road is assumed to limit the number of motorists who would divert to this movement.

The iterations of trip distribution assignments for the Mitigated Build condition can be found in the Appendix; changes in traffic volumes are reflected in Figure 45.

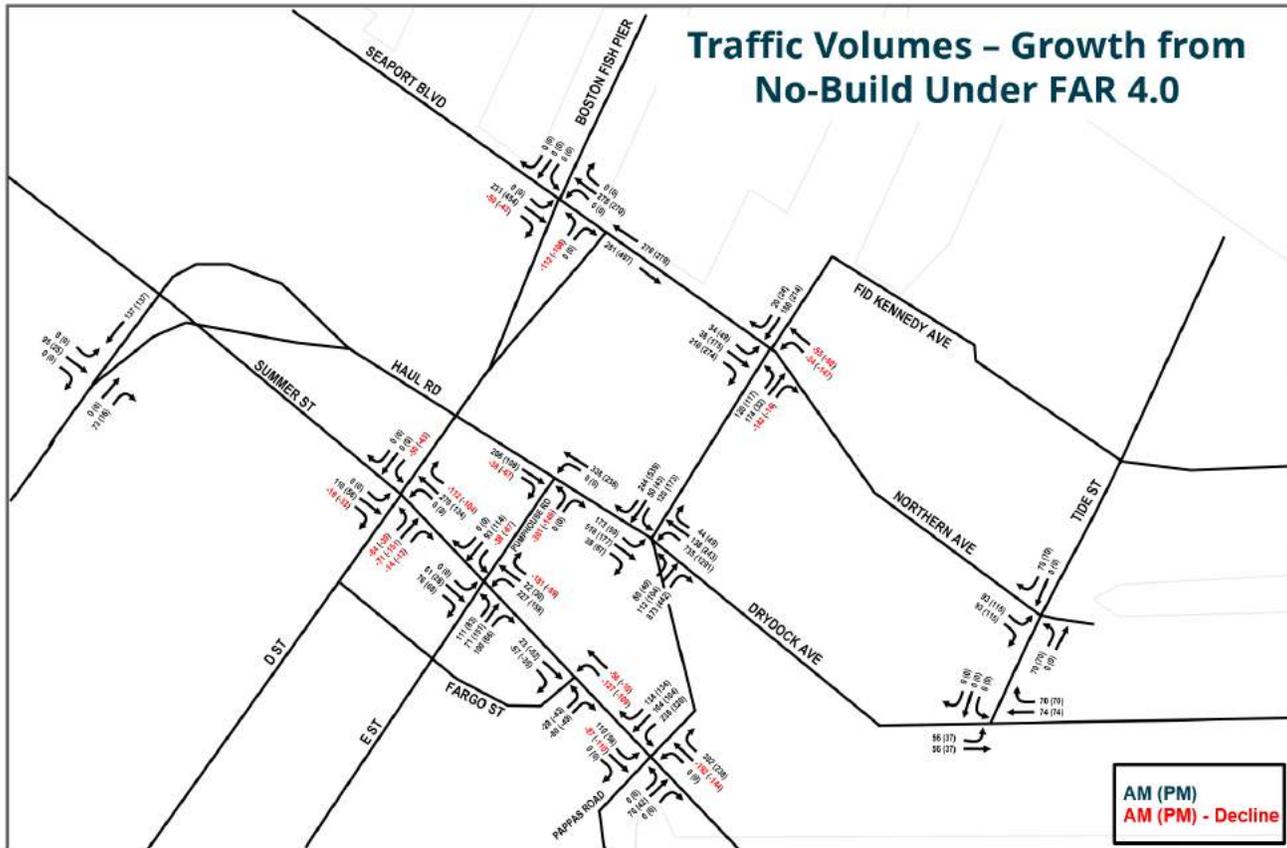


Figure 45: Changes in traffic volumes under the FAR 4.0 Mitigated Build condition

Vehicular Build Operational Analysis

The Mitigated Build analysis shows that additional vehicle traffic to the Park will affect operations at several study area intersections. The influence of the vehicle lane loss associated with the Summer Street Bus/Truck Lanes continues to affect travel to and from the Drydock Avenue gateway.

The Build Operational Analysis presented below introduces traffic signal improvements which are not present in any of the No-Build scenarios. Higher volumes and the influence of the Summer Street Bus/Truck Lanes limit the overall improvement to the roadway system, speaking to the importance of facilitating travel by other modes.

As with the other capacity analysis provided in this report, this analysis can be considered conservative given the long-term timeframe (potentially several decades) required to achieve full buildout of the Park. No horizon year is cited for this analysis as FAR 4.0 Build condition is meant to reflect an undefined future condition where complete buildout has been achieved. Additionally, no growth in work from home behavior is estimated.

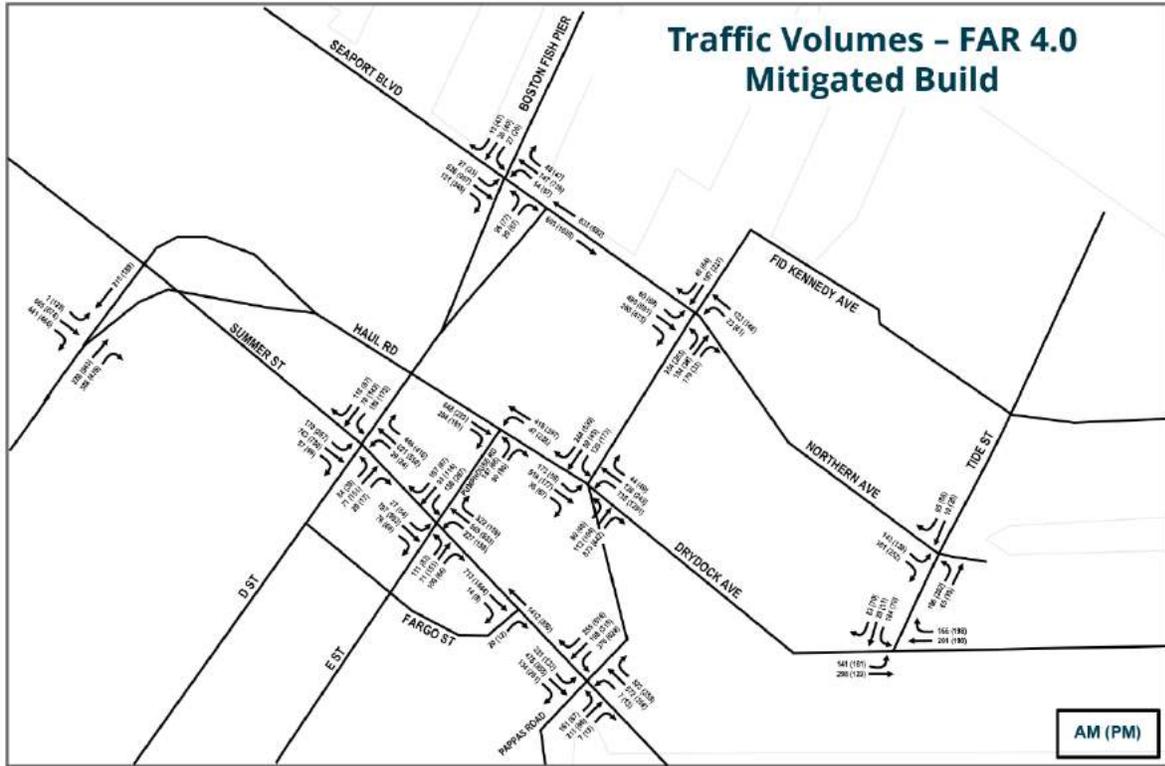


Figure 46: Traffic volumes under the FAR 4.0 Mitigated Build condition

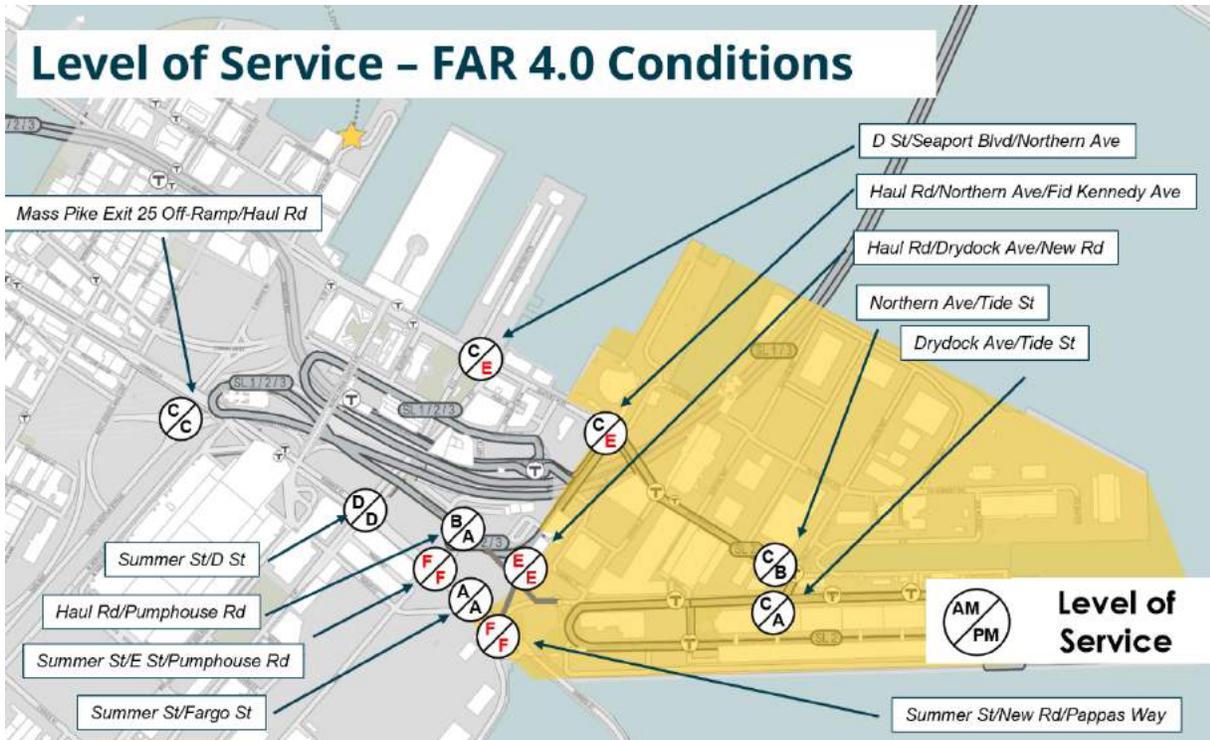


Figure 47: Level-of-service analyses for the FAR 4.0 Mitigated Build condition

Table 28: Future Build 4.0 Conditions on Mitigated Roadway Network Analysis – Signalized Intersections

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
Northern Avenue/Seaport Boulevard/D Street/Boston Fish Pier										
Northern Ave WB-LTR	B	14.5	0.67	151	481	C	31.7	0.91	205	636
Boston Fish Pier SB-LTR	D	45.8	0.44	35	68	E	76.6	0.71	87	151
Seaport Blvd EB-LTR	D	38.6	0.83	229	309	F	>100	>1.0	830	970
D Street NB LT	D	45.7	0.55	66	110	E	65.7	0.55	75	127
D Street NB R	D	41.8	0.11	13	34	E	70.1	0.63	86	141
OVERALL	C	27.3	0.70			E	76.0	1.00		
Drydock Avenue/Haul Road/New Street										
Drydock Ave WB-L	D	36.6	0.75	260	332	F	90.9	>1.0	580	714
Drydock Ave WB-TR	B	14.2	0.21	65	115	B	16.6	0.35	128	201
Haul Road SB-L	D	38.3	0.47	71	122	C	31.6	0.48	97	158
Haul Road SB-TR	C	30.6	0.28	28	105	C	29.8	0.54	55	196
Haul Road EB-L	C	22.5	0.39	49	112	D	35.6	0.24	19	37
Haul Road EB-TR	F	>100	>1.0	500	705	E	64.3	0.83	174	314
New Road NB-LT	F	>100	>1.0	210	360	F	>100	>1.0	151	285
New Road NB-R	E	59.3	>1.0	389	876	A	9.1	0.34	13	37
OVERALL	E	73.1	>1.0			E	64.7	>1.0		
Summer Street/New Road/Pappas Way										
Summer St EB-L	F	>100	>1.00	434	636	E	64.1	0.80	87	181
Summer St EB-TR	F	97.0	>1.00	639	881	F	>100	>1.0	1636	1905
New Road SB-L	F	>100	>1.00	313	548	F	>100	>1.0	701	942
New Road SB-T	D	39.1	0.43	163	246	E	61.2	0.82	297	449
New Road SB-R	C	26.3	0.20	0	59	C	31.8	0.36	0	82
Summer St WB-LTR	F	>100	>1.00	801	943	D	47.9	>1.0	190	273
Pappas Way NB-LTR	F	>100	>1.00	516	730	F	>100	>1.0	230	391
OVERALL	F	>100	>1.00			F	>100	>1.0		
Summer Street/E Street/Pumphouse Road										
Summer St WB-LT/TR	F	>100	>1.00	613	751	F	>100	>1.0	490	623
Pumphouse Road SB-L	F	>100	>1.00	154	295	F	>100	>1.0	235	431
Pumphouse Road SB-TR	D	49.1	0.54	36	85	D	39.4	0.26	41	76
Summer St EB-L	B	16.1	0.12	9	15	B	19.2	0.29	21	32
Summer St EB-TR	C	33.9	0.93	562	805	F	>100	>1.0	989	1101
E St NB-L	D	53.7	0.67	83	139	D	49.8	0.57	62	110

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
E St NB-TR	D	44.6	0.27	26	58	D	49.9	0.61	65	104
OVERALL	F	>100	>1.00			F	>100	>1.0		
Haul Road/Pumphouse Road										
Haul Road WB-L	A	3.2	0.31	7	10	A	1.9	0.26	18	62
Haul Road WB-T	A	2.8	0.10	94	132	A	1.9	0.28	35	106
Haul Road EB-T	A	8.4	0.53	202	359	A	4.5	0.18	43	86
Haul Road EB-R	A	0.8	0.14	0	6	A	1.2	0.13	0	9
Pumphouse Road NB-L	E	57.5	0.70	116	101*	C	29.8	0.51	37	51
Pumphouse Road NB-R	F	94.2	0.06	16	11*	C	29.1	0.06	1	15
OVERALL	B	14.9	0.55			A	5.7	0.31		
<i>*Metered by previous signal</i>										
Summer Street/D Street										
Summer St WB-R	B	11.9	0.45	19	50	B	14.2	0.42	157	239
Summer St WB-T	C	26.2	0.86	365	553	C	20.5	0.74	302	442
Summer St WB-L	D	41.7	0.68	19	50	C	24.0	0.42	9	26
D St SB-L	D	49.8	0.73	136	202	D	48.9	0.69	119	181
D St SB-TR	D	38.0	0.22	25	54	D	40.6	0.37	48	81
Summer St EB-L	C	31.9	0.76	56	201	E	64.9	0.95	91	373
Summer St EB-TR	E	69.5	>1.00	511	1043	F	87.5	>1.0	582	1121
D St NB-L	D	45.1	0.44	60	95	D	43.0	0.20	27	52
D St NB-TR	D	43.4	0.23	26	44	D	44.7	0.46	59	82
OVERALL	D	41.4	0.88			D	50.5	0.91		
Mass Pike Exit 25 Off-Ramp/Haul Road										
Haul Road SB-T	C	31.0	0.69	96	152	C	33.5	0.67	92	147
Mass Pike Off-Ramp EB-L	B	18.7	0.00	0	4	C	23.8	0.34	54	102
Mass Pike Off-Ramp EB-T	C	27.3	0.77	140	210	D	38.0	0.88	173	269
Mass Pike Off-Ramp EB-R	C	20.6	0.31	0	66	C	23.8	0.33	0	77
Haul Road NB-T	B	17.3	0.51	123	211	C	22.7	0.78	235	468
Haul Road NB-R	B	16.2	0.37	4	77	B	14.1	0.30	0	58
OVERALL	C	22.2	0.64			C	26.5	0.78		
Haul Road/Northern Avenue/Fid Kennedy Avenue										
Northern Ave WB-LT	B	19.1	0.26	73	90	A	7.1	0.23	44	58
Northern Ave WB-R	B	16.8	0.01	0	6	A	0.0	0.00	0	0
Fid Kennedy Ave SB-LT	B	16.9	0.24	86	174	D	35.5	0.52	159	291
Fid Kennedy Ave SB-R	B	15.1	0.03	0	25	C	30.7	0.04	0	39

	AM Peak Hour					PM Peak Hour				
	LOS	Delay (s/veh)	v/c	Queue (ft)		LOS	Delay (s/veh)	v/c	Queue (ft)	
				50th	95th				50th	95th
Northern Ave EB-LT	C	29.2	0.76	336	354	B	13.0	0.71	283	331
Northern Ave EB-R	B	18.3	0.18	0	34	A	8.6	0.44	84	112
Haul Road NB-LT	C	34.3	0.83	291	613	F	>100	>1.0	366	568
Haul Road NB-R	B	15.8	0.12	0	48	C	30.5	0.02	0	29
OVERALL	C	25.0	0.80			E	70.0	0.99		

Table 29: Future Build 4.0 Conditions on Mitigated Roadway Network Analysis – Unsignalized Intersections

	AM Peak Hour				PM Peak Hour			
	LOS	Delay (s/veh)	v/c	95 th Queue (feet)	LOS	Delay (s/veh)	v/c	95 th Queue (feet)
Drydock Avenue/Tide Street (unsignalized)								
Drydock Ave WB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Tide St SB-TR	F	70.5	0.92	228	C	19.3	0.39	45
Drydock Ave EB-TL	A	8.5	0.13	13	A	8.7	0.15	13
OVERALL	C	18.6			A	5.2		
Northern Avenue/Tide Street (unsignalized)								
Drydock Plaza Dr WB-LTR	A	9.0	0.00	0	A	8.3	0.00	0
Tide St SB-LTR	A	9.4	0.18	18	A	9.1	0.17	15
Northern Ave EB-LTR	C	18.3	0.71	153	B	13.8	0.56	88
Tide St NB-LTR	B	12.8	0.43	53	B	14.0	0.52	75
OVERALL	C	15.5			B	13.2		
Summer Street/Fargo Street (unsignalized)								
Summer St WB-LT/T	A	0.0	0.00	0	A	0.0	0.00	0
Summer St EB-TR	A	0.0	0.00	0	A	0.0	0.00	0
Fargo St NB-LR	C	15.8	0.06	5	D	34.0	0.10	8
OVERALL	A	0.1			A	0.2		

Transit Build Operational Analysis

As described in the Future Build Travel Assumptions Section, project-generated trips by mode were derived by taking person trips generated by the project and applying Go Boston 2030 mode share targets to each land use with the exception of marine industrial, where all trips were estimated to be by private automobile. As such, the FAR 4.0 scenario is anticipated to generate 33,647 additional transit trips.

The capacity analyses below incorporate mitigation pertaining to:

- North Station/South Station/South Boston Waterfront Bus Service
 - Bus service between North Station and the South Boston Waterfront via South Station
- Seaport Circulator
 - Privately-operated, publicly-accessible circulating bus within the South Boston Seaport, operating between 7 AM and 7 PM with 10-15 minute headways
- Nubian Square/RLFMP Shuttle
 - Shuttle service (privately-operated, open to the public) between Nubian Square and RLFMP, operating with 10-15 minute peak headways and 25-35 minute off-peak headways
- Fleet Expansion/Bus Platooning for SL1 and SL2
 - Fleet expansion or bus platooning for Silver Line services to increase passenger capacity

Additional mitigation which could facilitate more transit trips through increased service and capacity include, but cannot be effectively modeled without more detailed service information, include:

- Summer Street Bus/Truck Lanes
 - Dedicated, combined bus and truck lanes along Summer Street; lanes may operate as center or side-running
- Pier 10 Ferry Terminal Revitalization and Service
 - Revitalization of Pier 10 ferry terminal with new service from Fan Pier or extension of existing services between Fan Pier and Lovejoy Wharf
- Consolidation of Private Shuttles
 - Consolidation of private shuttles offering service from between downtown locations (including South Station) and South Boston Waterfront for higher frequencies and congestion relief
- Expansion of Local and Regional Ferry Services
 - Introduction of ferry services to Fan Pier and Pier 10 from Downtown, Charlestown, and East Boston and service enhancement of regional ferry services from Salem, Lynn, Hingham to Fan Pier

The following tables present the capacity analyses for the FAR 4.0 Build condition MBTA routes in the South Boston Seaport, the planned North Station/South Station/South Boston Waterfront shuttle (North Station Shuttle), and the Seaport Circulator. The growth of 33,647 transit trips in the Build condition were distributed equally across the existing transit services. The North Station Shuttle and Seaport Circulator are new services, without preexisting capacity restraints.

To balance ridership across the modes, all No-Build and Build ridership projected for the MBTA Route 4 was moved to the North Station Shuttle. The Seaport Circulator, which provides a valuable intra-Seaport mobility option, is analyzed in the peak hours and shifts demand away from the SL2.

Table 30: Build MBTA/Transit Capacity Analysis – Daily

Route	Inbound				Outbound			
	Daily Service	Ridership	Capacity	Ridership/Capacity	Daily Service	Ridership	Capacity	Ridership/Capacity
SL1	532	13,456	27,689	50%	294	13,642	15,310	49%
SL2	541	11,731	28,122	32%	257	11,083	13,347	39%
Rt4	16	226	1,056	21%	16	162	226	15%
Rt7	100	9,664	5,808	146%	88	7,878	2,643	136%
North Station Shuttle	100	600	5,808	9%	88	431	2,643	7%
Circulator	Daily capacity not measured							

The peak hour Build transit capacity analyses experienced the most capacity strain on the Silver Line. The Silver Line Capacity Study proposed two solutions for increasing capacity: expanding the Silver Line fleet and platooning bus service. Expanding the Silver Line Fleet would allow 54 buses to be run per hour, compared to 72 buses per hour with bus platooning. The daily capacity analyses assumes the fleet expansion and the more conservative 54 buses per hour.

With higher demand in the peak hour, there is a greater need for the bus platooning.

Table 31 and Table 32 show the peak hour capacity analyses, with bus platooning on both the SL1 and SL2.

Table 31: Build MBTA/Transit Capacity Analysis – AM Peak Hour

Route	Inbound				Outbound			
	AM Pk Service	Ridership	Capacity	Ridership/Capacity	AM Pk Service	Ridership	Capacity	Ridership/Capacity
SL1	37	1,321	1,934	68%	35	2,317	1,805	128%
SL2	60	752	3,095	24%	64	4,527	3,353	135%
Rt4	6	174	396	44%	5	31	330	9%
Rt7	36	5,780	2,376	243%	20	2,873	1,320	218%
North Station Shuttle	36	463	2,376	20%	20	82	1,320	6%
Circulator	5	264	330	80%	5	264	330	80%

Table 32: Build MBTA/Transit Capacity Analysis – PM Peak Hour

Route	Inbound				Outbound			
	PM Pk Service	Ridership	Capacity	Ridership/Capacity	PM Pk Service	Ridership	Capacity	Ridership/Capacity
SL1	35	2,046	1,805	113%	37	1,905	1,934	98%
SL2	72	5,329	3,740	143%	69	1,413	3,611	39%
Rt4	21	22	396	5%	23	98	396	25%
Rt7	21	1,222	1,386	88%	23	2,091	1,518	138%
North Station Shuttle	21	57	1,386	4%	23	260	1,518	17%
Circulator	5	264	330	80%	5	264	330	80%

Evident in the No-Build capacity analyses, the existing transit network and service levels cannot absorb both the No-Build and Build transit trips anticipated in the Park and South Boston Seaport. Ongoing planning efforts such as the South Boston Seaport Strategic Transit Plan and Silver Line Capacity Study point to the importance of improvements which increase capacity within the Seaport and between the Seaport and the outlying region. This study notes that with constrained roadway conditions, investments in multimodal travel will be necessary to accommodate not just future development in the Park, but any development across the Seaport.

This analysis presents a conservative picture of future conditions; future service characteristics cannot be easily estimated given the complex relationship between transit routes, capacity of transit route rights-of-way, service intensity dependent upon public investments, quality of the surrounding pedestrian and bicycle network, and ability to make both first and last mile connections. Buildout of the Park is anticipated to be carried out in close coordination with ongoing efforts of BPDA, BTD, Massport, MassDOT, the MBTA, and other key stakeholders to improve local transit access.

1.11 MITIGATION

The infrastructure projects detailed in this report represent a final buildout of the South Boston Waterfront. As discussed in each section, these projects are in various stages of planning; some have achieved 100% design and are anticipated to be in place within the next few years; others may be decades away due to the time needed for land acquisition, environmental review, and securing of funding.

As this report shows, buildout of the South Boston Waterfront as a whole will place a strain on roadway and transit networks in the neighborhood. Several roadway, transit, and bicycle/pedestrian improvement projects will take place in the South Boston Waterfront regardless of the level of growth in the Park, which are reflected in No-Build operations.

Today, Park development makes up 11% of all development in the South Boston Waterfront; even at an aggressive FAR 4.0 growth scenario RLFMP development will only make up 16% of all South Boston Waterfront square footage in a full-build condition. The concentration of industrial uses in the Park, with fewer travel impacts during peak travel periods, will further limit the degree to which growth in the Park will affect operations throughout the South Boston Waterfront.

A particular focus of this analysis has been freight conditions; vehicle growth in the FAR 2.0 and FAR 4.0 conditions accounts for a conservative estimate of freight impacts in accordance with traffic levels observed today. As traffic patterns show, freight naturally occupies vehicle space when travel conditions are not at their most congested. This condition is expected to remain in place with future development. As all but approximately 40,000 square feet of the total marine industrial growth is present in the FAR 2.0 scenario, freight access to and from the RLFMP will continue to be a point of emphasis.

Mitigation which will be pursued under any buildout scenario in the Park, along with broader South Boston Waterfront growth, include the following:

1.11.1 Roadway/Freight

- Realignment and signalization of the Haul Road/Northern Avenue/Fid Kennedy Avenue intersection will better align Haul Road with Fid Kennedy Avenue for truck access along Fid Kennedy Avenue and improve vehicle operations.
 - *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park. Mitigation for the 2 Harbor Street development project will be providing initial design funding.*
- Realignment of Fid Kennedy Avenue to reduce curvature north of the Haul Road/Northern Avenue/Fid Kennedy Avenue intersection will improve access to marine industrial uses in the Park.
 - *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park.*
- Connection of Haul Road with Drydock Avenue will provide new access to the Park directly from Haul Road. The Summer Street/Drydock Avenue/Pappas Way intersection will also be re-aligned to accommodate the Haul Road/Drydock Avenue/New Road intersection.
 - *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park.*

- Connection of E Street with the Summer Street/Pumphouse Road intersection and Cypher Street to E Street will provide redundant freight access between the South Boston Bypass Road and Haul Road.
 - *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park as a future phase of the Cypher Street/E Street project when the right-of-way is secured. Conceptual design has already been completed.*

1.11.2 Parking

- Adherence to the proposed Parking Ratio Maximums and South Boston Parking Freeze Standards, especially for non-marine industrial uses.
 - *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park.*

1.11.3 Active Transportation

- The Northern Avenue Reconstruction project will provide two six-foot separated bicycle lanes and new sidewalks between Haul Road/Fid Kennedy Avenue and Tide Street.
 - *To be implemented in the No-Build condition; the project has completed 100% design and is funded for construction by BPDA starting in 2021.*
- Fully-protected bicycle lanes along Summer Street between Melcher Street and the Reserve Channel will improve bicycle access between Downtown Boston, the South Boston Waterfront, and the Park.
 - *To be implemented in the No-Build condition as part of broader Summer Street reconstruction efforts, which are partially funded as of spring 2021.*
- Complete Streets upgrades along Drydock Avenue
 - *To be implemented in the No-Build condition; the project is currently funded.*
- Provision of Complete Streets standards as part of any roadway improvement project in the study area.
 - *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park.*
- A bicycle parking garage at the Fid Kennedy Avenue/Tide Street intersection will increase bicycle parking provision in the Park.
 - *May be implemented as part of long-term buildout of the South Boston Waterfront and the Park.*

1.11.4 Transit

- Provision of the Summer Street Bus/Truck Lanes between Melcher Street and the Reserved Channel Bridge will improve bus service along this corridor.
 - *To be implemented in the No-Build condition as part of broader Summer Street reconstruction efforts, which are partially funded as of spring 2021.*
- Introduction of the Seaport Circulator will provide additional intra-neighborhood travel between the Park and the South Boston Waterfront and connect with Silver Line stations and the Fan Pier ferry.

- *To be implemented in the No-Build condition, contingent on funding acquisition.*
- A shuttle connection between Nubian Square and the Park will fill a missing transit link between the Park, the South Boston Waterfront, and Nubian Square.
 - *To be implemented in the No-Build condition as proposed mitigation for the 24 Drydock Avenue project. Potential for enhancement and expansion with additional private development partners.*
- Revitalization of Pier 10 at the end of Drydock Avenue will provide direct ferry access to the Park. *To be implemented in the No-Build condition, contingent on funding acquisition.*
- Implementation of projects proposed in the Silver Line Capacity Study and South Boston Seaport Strategic Transit Plan will expand the capacity of existing and potential new transit services to meet growth in the South Boston Waterfront and as part of the FAR 2.0 and FAR 4.0 buildout scenarios. Mitigation expected to be most impactful for Park operations include:
 - North Station/South Station/South Boston Waterfront Bus Service
 - Fleet Expansion/Bus Platooning for SL1 and SL2
 - Consolidation of Private Shuttles
 - Expansion of Local and Regional Ferry Services

Other projects may include:

- South Station/Dorchester Avenue shuttle bus transfer upgrades
- New bus service connections to the Park including Andrew Square via D Street and South Station via the Park
- Installing transit signal priority or half-cycling the Transitway/D Street signal for SL1 and SL2 services, or eliminating this at-grade intersection
- Installing transit signal priority and queue jump lanes at South Boston Waterfront intersections, where applicable
- Extending transit service along Track 61 to the Park
- New bus connection along A Street from Broadway Station
- *To be implemented as part of long-term buildout of the South Boston Waterfront and the Park.*

1.11.5 Transportation Demand Management

- Application of mode share targets meeting Go Boston 2030 goals for non-marine industrial uses. These targets are 25% vehicular travel, 50% transit travel, and 25% walking/bicycling.
 - *To be implemented as part of long-term buildout of the Park through Article 80 review of individual projects.*
- Adherence to the proposed TDM Point System. Strategies encouraged for future development projects in the Park include:
 - Parking pricing, unbundling, and cashout
 - Transit subsidies
 - Bus stop enhancements
 - Carpooling
 - Guaranteed ride home

- *To be implemented as part of long-term buildout of the Park through Article 80 review of individual projects.*

1.12 CONSULTATION WITH ADVOCACY GROUPS

As buildout in the Park takes place, ample opportunity for coordination with affected agencies and advocacy groups will occur. The City's Article 80 process and MEPA review of eligible projects provides opportunity for stakeholders to comment on development plans and anticipated travel impacts associated with new development projects. During the process of assembling the FMPU the project team has coordinated with DIV Black Falcon, LLC (88 Black Falcon) and Cronin Drydock, LLC (24 Drydock Avenue) regarding their respective projects and ensure mitigation proposed in this report is consistent with these projects currently in the development phase.

All mode-centric pieces of this report were reviewed with stakeholders within BTM to ensure existing and future travel needs of those accessing the Park were addressed. The Go Boston 2030 long-range transportation vision and its ambitious mode share targets provide the context for future travel conditions where transit, walking, and bicycling is emphasized over vehicle travel. As such, consultation with advocacy groups is positioned to not answer whether investments for these types of travel should be made but how multimodal projects can best be implemented.

BPDA has invited close involvement of advocacy groups in prior planning processes, such as the multimodal improvements to be introduced as part of the Northern Avenue Reconstruction project. The Seaport TMA has been an active stakeholder in the South Boston Seaport Strategic Transit Plan, also administered by BPDA. The BPDA looks forward to coordinating with advocacy groups moving forward as FMPU activities advance.

1.13 APPENDICES

Waterfront Infrastructure Assessment



Technical Memorandum #2: Evaluation of BMIP Waterfront Infrastructure

2015 BMIP Masterplan Update

HDR Project No. 244447

South Boston, Massachusetts

January 25, 2016

2015 BMIP Master Plan Update

Technical Memorandum #2: Evaluation of BMIP Waterfront Infrastructure

Introduction

To assist the Utile Team in the development of the 2015 Boston Marine Industrial Park (BMIP) Master Plan Update, HDR has performed a high-level assessment of the transportation and waterfront infrastructure within the BMIP. This was accomplished by both a review of various reports and studies by engineering consultants commissioned by the Economic Development Industrial Corporation (EDIC)/Boston Redevelopment Authority (BRA) over the past 20 years, as well as by a cursory site walk of the BMIP, which included a boat tour of the waterside infrastructure with the Boston Harbormaster. This memorandum provides an overview of the research and observations that HDR performed.

Information Review

HDR and Utile met with representatives from the BRA on January 15, 2015, at the Dry Dock Avenue offices to review the plans and archives relevant to the transportation and waterfront infrastructure within the BMIP. The references listed at the end of this memorandum include the most relevant reports and plan sets that were obtained from that literature search, which form the basis of our analysis of the existing conditions and recommended future projects.

Site Observations

On March 17, 2015, HDR and Utile participated in a site walk and tour of the waterfront infrastructure. The site walk of the BMIP included a viewing of the major truck routes throughout the area, as well as the existing and proposed Track 61 infrastructure alignments. A waterside tour of the BMIP was also performed by boat on this day, with the assistance of the Boston Harbormaster, and it included representatives from the BRA and Massport.

Inventory of BMIP Infrastructure

Located within Boston Harbor, the BMIP is situated close to downtown, Logan International Airport and the interstate highway and rail systems. Commercial and industrial traffic to and from the BMIP has direct access to Logan Airport through the Ted Williams Tunnel, and to the I-90 (Massachusetts Turnpike) and I-93 corridors via the South Boston Bypass Road and the Massport Haul Road.

Figure 1 provides an illustrative summary of the major transportation infrastructure located within the BMIP.

For the purposes of this study, HDR has identified the following specific components of transportation infrastructure within the BMIP to be considered within the study, including:

- Roadway Infrastructure
- Intermodal Infrastructure
- Maritime Infrastructure

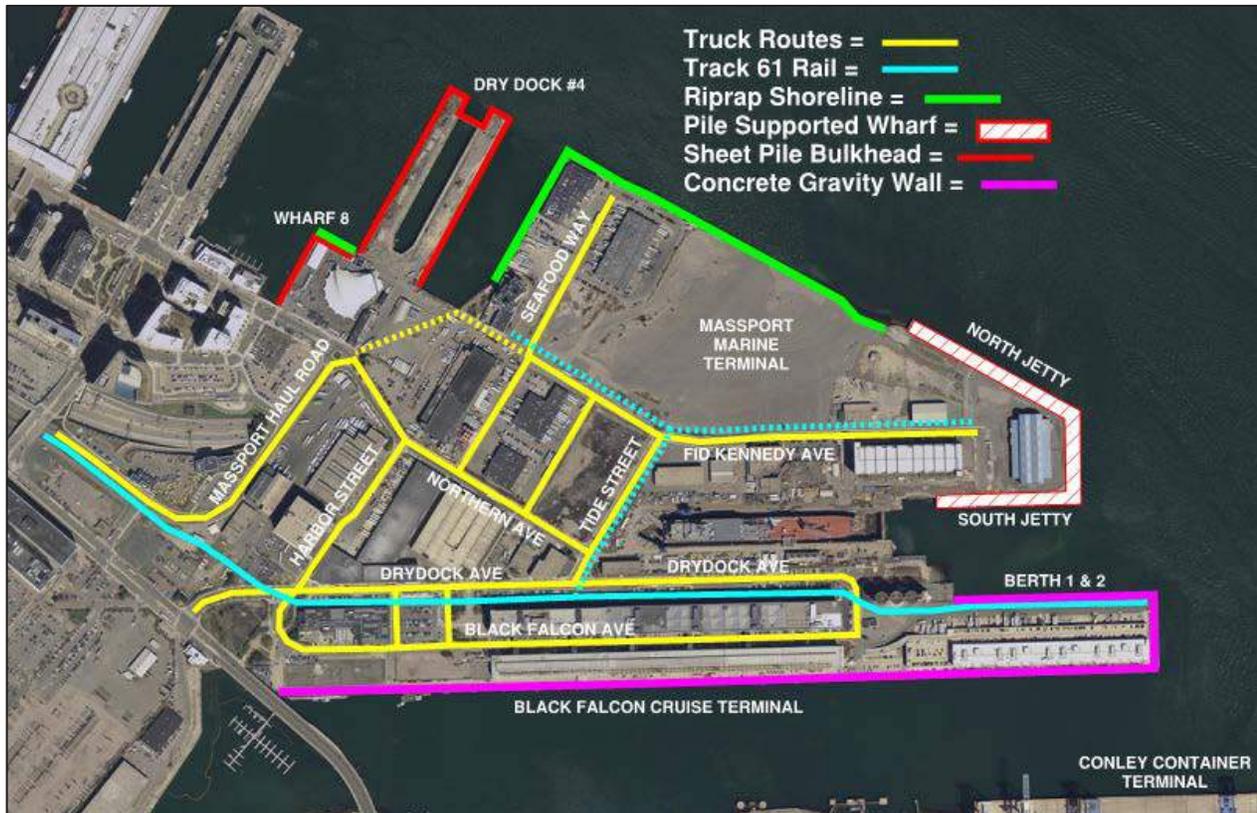


Figure 1: Overview of transportation infrastructure in the BMIP.

Roadway Infrastructure

Maintenance of truck routes within the BMIP is critical to the operations of the existing tenants. Fortunately, there are good links with the airport and interstate highway system. BRA has spent considerable effort and funds over the past decades to preserve and improve truck access to the BMIP. Main routes include:

- Primary access for trucks into and out of the BMIP is provided via the Massport Haul Road and Northern Avenue. The Massport Haul Road provides a critical link for trucks to access the interstate system directly for both north/south bound (via I-93) and west bound (via I-90) trucks.
- Secondary truck access is provided via Dry Dock Avenue to Summer Street. Summer Street is the primary link to the Thomas Butler Dedicated Freight Corridor (under

construction), which will provide direct truck access to Massport's Conley Container Terminal.

- The interior portions of the BMIP are serviced via FID Kennedy Avenue and Black Falcon Avenue, which run parallel to Northern Avenue and Dry Dock Avenue respectively.
- Side roads within the western portion of the BMIP include Channel Street, Harbor Street, and Tide Street.
- Side roads in the eastern portion of the BMIP include Anchor Way, Bollard Way, Capstan Way, and Dolphin Way.



Figure 2: View of Dry Dock Avenue, looking northeast.

The majority of the road network within the BMIP has been upgraded to improve surfaces, sidewalks, curbing and landscaping. Currently, the BRA is extending FID Kennedy Avenue west and south to intersect Northern Avenue, which will provide a more direct truck route between the Massport Haul Road and the seafood processing center at the western end of the Massport Marine Terminal (Parcel M-1).

The EDIC/BRA is also considering creating a trucks-only corridor road that parallels Track 61 between Dry Dock Avenue and the Massport Haul Road (see Figure 3). This would help separate pedestrian and automobile traffic from the trucks, and would also allow direct access from the BMIP to the South Boston Bypass Road, the Ted Williams Tunnel and the Massachusetts Turnpike (I-90 westbound).

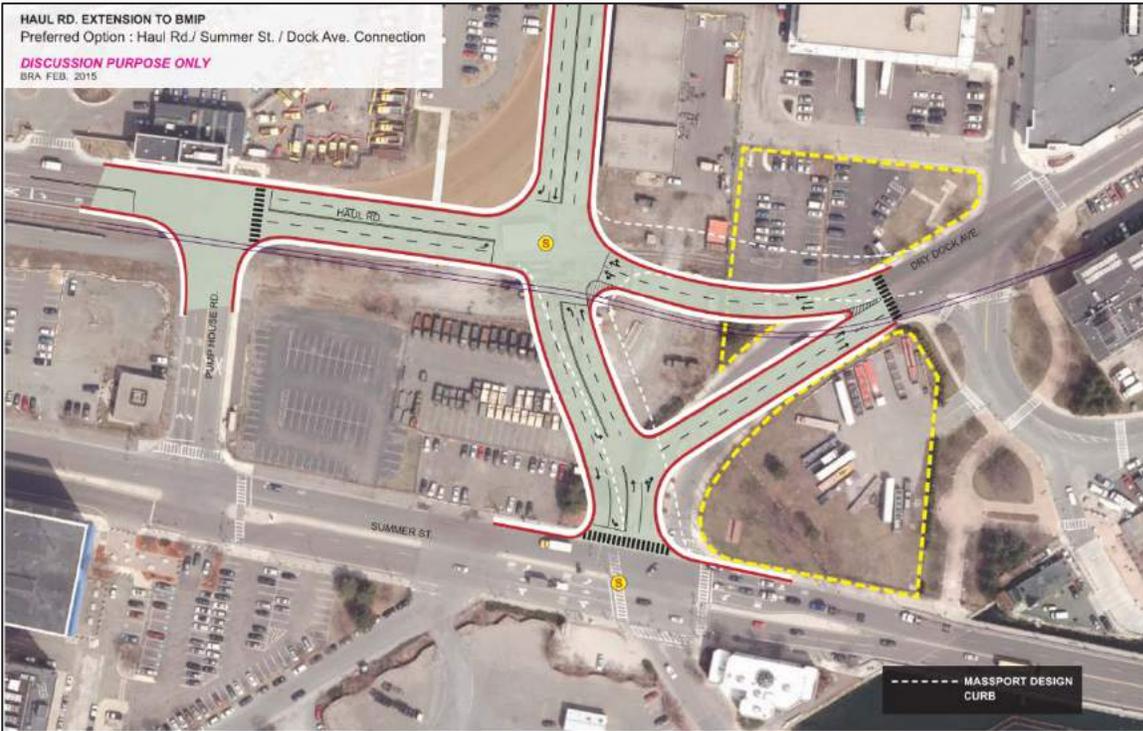


Figure 3: Conceptual layout for improved road connections at the southern entrance to the BMIP; between the Massport Haul Road, Summer Street, and Dry Dock Avenue.

Intermodal Infrastructure

AIR FREIGHT

The Ted Williams Tunnel provides a direct link between the BMIP and Logan International Airport for access to air freight routes. Air freight at the BMIP primarily includes seafood and flowers for consolidation and distribution.

RAIL FREIGHT

Track 61 is the only remaining rail link within the BMIP. Although the line was once heavily utilized on the South Boston waterfront prior to the establishment of the BMIP, the line was cut off during the construction of the Central Artery project and is currently out of service. The right-of-way has been preserved, however, in order to enable re-establishment of the rail infrastructure in the future.

The existing components of Track 61 run along the Massport Haul Road, extending along Dry Dock Avenue in very close proximity to the Design Center Buildings (see Figure 4). Final engineering design plans were prepared in 2008 to extend the BMIP rail infrastructure into the MMT by providing additional tracks along Tide Street and FID Kennedy Avenue however the project has not yet been authorized for construction. The estimated construction cost for the new Track 61 improvements was approximately \$7.43 million in 2008.



Figure 4: View of existing Track 61 rail which runs adjacent to the Design Center Buildings.



Figure 5: View of Track 61 rail infrastructure at Parcel K in the east end of the BMIP.

The extension of rail into MMT would provide the intermodal infrastructure needed to transport bulk materials (high volume – low margin goods), however there are a number of operational limitations caused by the existing rail infrastructure outside the BMIP that adversely impact the efficiency and economic viability of any potential rail operations. These include:



- Double stacked containers on rail cars is the national standard for rail freight, however double-stacked service to the waterfront is only available as far as the Beacon Park Yard in Allston, nearly four miles away from the BMIP.
- To get from the BMIP to the Beacon Park Yard, trains are required to pass through seven (7) switching operations to move across the commuter rail and Amtrak lines that run into South Station.
- The highly utilized passenger lines to South Station limit freight rail scheduling to evenings only, between 1:30am and 5:30am (i.e., a 4-hour operation window).
- Freight trains are typically 80 to 100 cars long and need 1.25 miles of runaround track for efficient moves. The available space within the BMIP only supports 25 to 40 cars at a Fid Kennedy Yard and New Yard, respectively.
- Multiple grade crossings with surface roads along the Track 61 corridor present serious safety concerns.

Rail service is not essential for existing tenants, based on interviews performed as a part of the Team's study. The tenants currently leasing the northern parcels within the BMIP have a greater need for future rail (e.g., Massport Marine Terminal; Harpoon Brewery; fish processors) for moving goods such as cold/multi-temp cargo; bulk, break-bulk and distillery grains; and cross dock or overweight cargo.

Waterfront Infrastructure

The BMIP is located within Boston Harbor at the confluence of the Main Ship Channel and the Reserved Channel. It is one of the most seaward industrial properties in the Port of Boston, along with Massport's Conley Terminal. The BMIP has two primary ship berths, including Berth 10 (Parcel C-1) and the North Jetty (Parcel M-1). Currently, the South and East Jetties (both in Parcel L) are in poor structural condition and not in use. Note that the Black Falcon Terminal, which has deep water berths for large cruise vessels, and Berths 1 and 2 adjacent to the Cement Plant (Parcel K) are NOT within the boundary of the BMIP.

The waterfront assets within the BMIP are located primarily within the following parcels:

- Parcel C-1 (Berth 10)
- Parcel K (Coastal Cement)
- Parcel L (Dry Dock #3, w/South and East Jetties)
- Parcel M-1 (Massport Marine Terminal, w/North Jetty)
- Parcel V (Dry Dock #4)
- Parcel W (Wharf #8)
- Parcel Z (Pier 10)

PARCEL C-1: BERTH 10

Berth 10 is located along the Reserved Channel and extends from the Summer Street Bridge approximately 550 feet east along the Black Falcon Terminal Pier (see Figure 6). The berth has a depth of -29 feet Mean Low Water (MLW), and is suitable for small- to medium-sized vessels. The wharf structure at Berth 10 consists of a concrete quay wall and concrete deck supported

by timber foundation piles, as illustrated in Figure 7. The wharf underwent partial reconstruction in 1992.

The parcel includes a floating dock currently used by Boston Line and Service Company for servicing commercial vessels around the Harbor, and a floating dock for the Boston Police Harbor Patrol boats. The dock is also used to support boat operations to/from Thompson Island, and is available for use as a stop for private water taxi service.

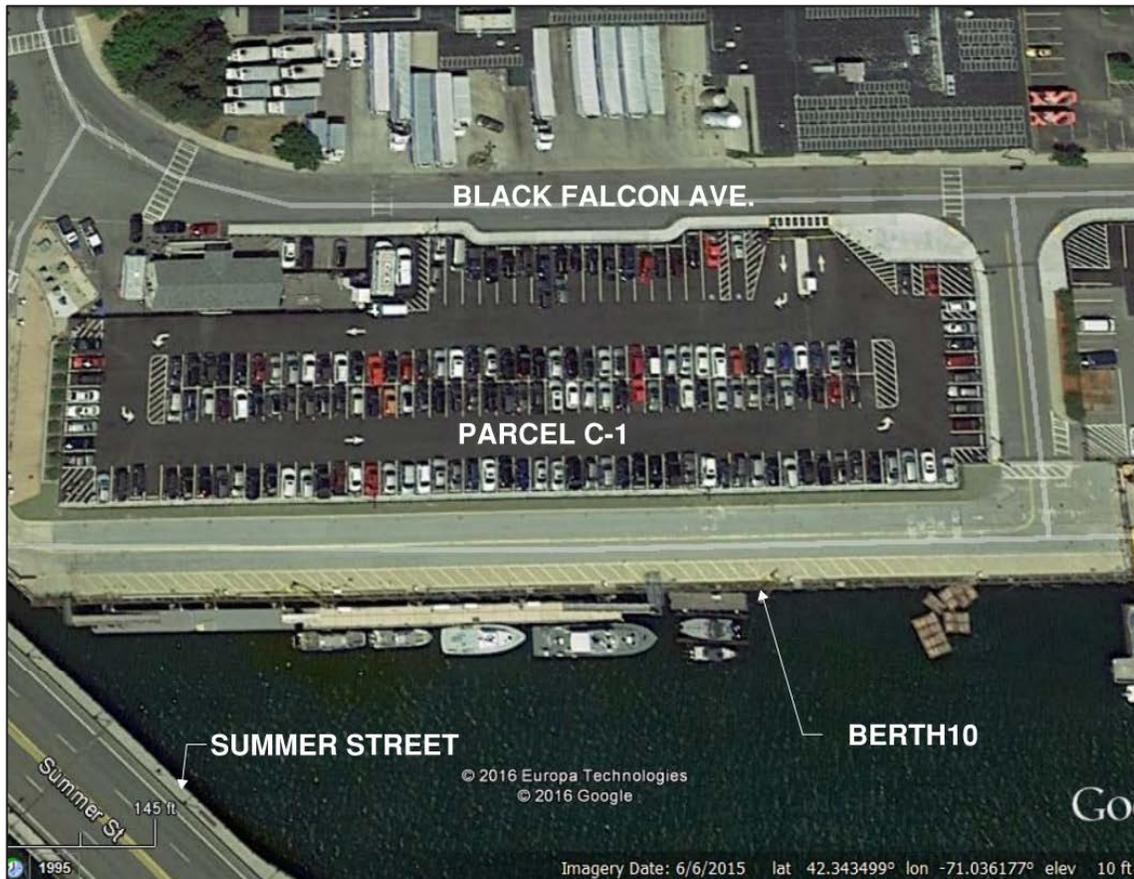


Figure 6: Aerial view of Berth 10.

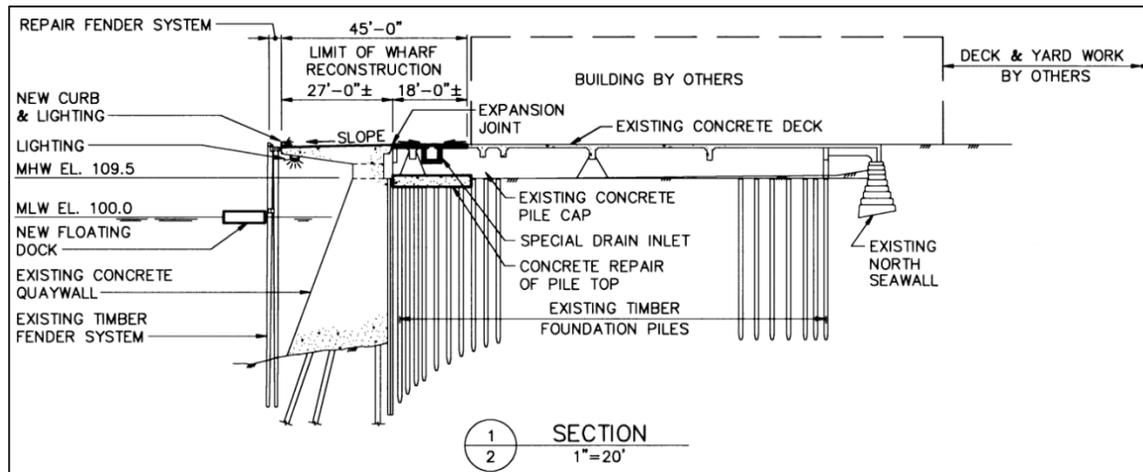


Figure 7: Section sketch of the wharf structure at Berth 10.

PARCEL K: COASTAL CEMENT PLANT

Located between the Black Falcon Pier and Dry Dock #3, Parcel K includes a concrete plant operation that is able to offload vessels using Massport's adjacent Berth 1 and Berth 2. The existing Track 61 infrastructure in the BMIP currently extends to Parcel K, although it has been out of service since the track was cut off during the Central Artery/Tunnel project.

PARCEL L: DRY DOCK #3

Built in 1915, Dry Dock #3 is one of the largest dry dock facilities on the east coast. The dock is 1,176 feet long with a depth of 44 feet, and two 40-ton capacity cranes. The parcel includes several support buildings including a pump house, storage, and repair shop. Boston Ship Repair has occupied the Dry Dock #3 facility since 1996. There have been recent conflicts with tenants in the adjacent Design Center, however, who have been complaining about noise, sand-blasting and painting residue in close proximity to the shipyard.

South and East Jetties

The South and East Jetties are also a part of this Parcel, as seen in Figure 9.

The jetties were originally constructed during the 1940's. The South Jetty is 900 feet long, and the East Jetty is 442 feet long. The Jetties are marginal wharf structures with 64-foot wide deck platforms founded on steel piles with concrete encasements. The South Jetty was dredged to -35 feet MLW as part of the Boston Harbor Navigation Improvement Project. Both jetties consist of an inshore steel sheet pile bulkhead to retain backland fill, and a reinforced concrete deck supported by 12-inch and 14-inch steel H-piles with 28-inch diameter reinforced concrete jackets that extend from approximately -4 feet MLW to the underside of the deck structure.

Significant repairs to the jetties were performed in 1996 at a cost of approximately \$14.5 million. The work included demolition of approximately 320 linear feet of the South Jetty closest to the dry dock, removal and replacement of the deck structure and heavily deteriorated pile encasements. The repairs were designed to have an allowable deck capacity of 600 pounds per square foot. See Figures 10 and 11 for views of the existing South and East Jetty wharf structures, respectively.

Today, the jetties are in poor condition overall and are in need of major structural repairs and/or reconstruction. The severe deterioration of the concrete pile jackets and exposed corroded steel reinforcement in the deck and jackets has significantly reduced the structural capacity of the South and East Jetties, which are currently not utilized due to the state of disrepair.

PARCEL M-1: MASSPORT MARINE TERMINAL

At 40-acres, the Massport Marine Terminal (MMT) is the largest individual site within the BMIP. Massport is currently leasing the site from EDIC through February 2070. The site has excellent landside access and is well served by local commercial vehicle only truck routes (i.e., Massport Haul Road and the South Boston Bypass Road) with direct connections to Logan International Airport (via Ted Williams Tunnel) and the interstate highway system (I-90 west bound and I-93 north and south bound). See Figure 12 for an overall view of Parcel M-1 and its abutting parcels.

Currently, the MMT is unimproved and includes very limited site infrastructure. A further constraint includes airport-related height limits of approximately 110 to 160 feet above MSL, which may affect certain vessels or activities. On the water side, MMT has approximately 3,000 linear feet (LF) of waterfront immediately adjacent to the Shipping Channel with depths ranging between -25 to -40 feet deep at Mean Low Water along the North Jetty. There is an additional 600 LF of waterfront along the western edge with depths of -30 ft MLW that could be developed to accommodate berthing of smaller commercial vessels.

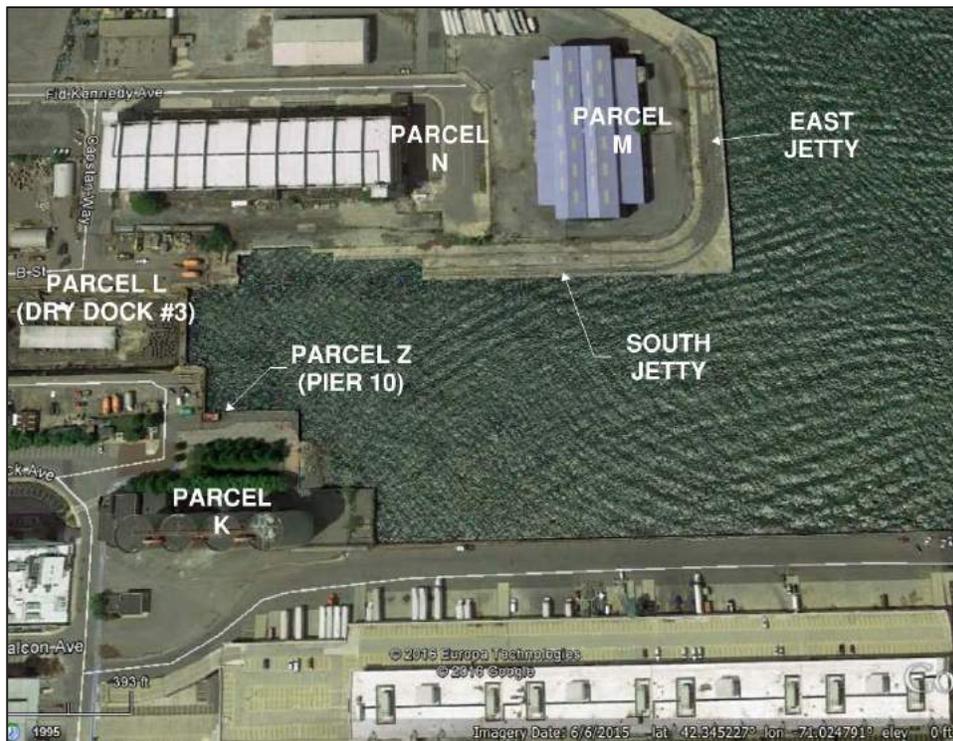


Figure 8: Aerial view of waterfront infrastructure at the eastern end of the BMIP.



Figure 9: View of the North, South and East Jetty Structures.



Figure 10: Existing conditions at South Jetty.



Figure 11: View of pile encasements along the East Jetty.



Figure 12: Overall view of the Massport Marine Terminal and adjacent parcels.

North Jetty Improvements

The North Jetty is the most important and valuable asset at MMT, with its deep-water access and hardened-edge berth infrastructure that could accommodate various bulk or break bulk

cargo vessels. Originally constructed in the 1940's as part of the US Naval Shipyard – South Boston Annex, the, the 75-year old North Jetty deck structure was designed for a 50-ton capacity portal crane (600 pounds per square foot capacity).

Originally 1,010 feet long by 60 feet wide, the North Jetty construction is similar to that of the South and East Jetties, and consists of a concrete deck supported by steel H-piles with cylindrical concrete extensions from -3 feet Mean Lower Low Water (MLLW) to the concrete beams in the deck. The inshore bulkhead is ZP-32 section steel sheet piling with a concrete cap.

Previous repairs to the North Jetty structure have included:

- 110 concrete pile extensions were repaired in 1953
- 55 additional concrete pile extensions were repaired in 1955
- Timber fender system repaired in 1975
- The wharf length was reduced to 830 feet long in 1981
- The crane rails were removed, fenders upgraded, pile and deck repairs, sheet pile repairs, and cathodic protection anodes were added to piles in rows “A” and “B” for corrosion protection in 1985



Figure 13: Overall view of the existing North Jetty wharf and fender system.



Figure 14: Typical condition of piles supporting the North Jetty wharf deck.

In 2006, an above and below water structural condition assessment was performed at the North Jetty and revetment west of the wharf. The assessment determined that the Jetty requires extensive rehabilitation to extend its service life for another 15-20 years. Most of the structure was in FAIR condition at that time, and the overall load capacity had not been significantly affected. The westernmost 100 feet of the structure was in POOR condition, however (45% of concrete pile extensions are non-bearing, and 15% of the piles have >50% loss of section), with some displacement observed to the wharf. In addition, the assessment observed that the cathodic protection anodes on the piles are depleted and provide no protection against corrosion for the steel piles. The sheet pile wall along the landward edge of the wharf was perforated in several areas, with loss of fill apparent in the upland areas above the holes.

PARCEL V: DRY DOCK #4

Built in 1941 for small and medium-sized vessels, Dry Dock #4 is 690 feet long with 35 feet depth. The facility is in a serious state of disrepair, and is presently undergoing repairs to stabilize the existing steel sheet piling bulkhead structures and caisson. There have been several different proposals to redevelop Parcel V in recent years, including one to construct an underground garage within the dry dock, with a new City Hall building on top of it. Most recently, the facility was used for snow storage during the severe 2015 winter season.

EDIC/BRA recently engaged engineering consultants to design repairs required to stabilize the existing structures, which are in severe condition. Refer to Figures 16 through 20 for photographs of existing conditions at the Dry Dock #4 facility.



Figure 15: Aerial view of BMIP Parcels V and W.



Figure 16: View of open sinkhole in the deck of Dry Dock #4.



Figure 17: Dry Dock #4 berth, looking south.



Figure 18: Overall view of the deck at Dry Dock #4.



Figure 19: View of the east side of Dry Dock #4. This facility was used for the City's excess snow storage during the harsh winter of 2015.



Figure 20: View of perforated steel bulkhead along Dry Dock #4.

PARCEL W: WHARF #8

Wharf #8 is oriented perpendicular to Northern Avenue and extends approximately 400 LF along the waterfront at C Street. The wharf structure consists of an anchored steel sheet pile bulkhead with a concrete cap. Along the north side of the wharf, there is a 200-foot long riprap revetment located seaward of the bulkhead wall, which intersects with the western side of Dry Dock #4. Figure 21 provides a photograph of the existing bulkhead and riprap revetment at Wharf #8,

The wharf is part of the Boston Harborwalk, and is on the site of the Blue Hills Bank Pavilion venue. The pavilion itself is considered a “temporary” structure, though it now more than 15 years old (it was constructed in 1999). The venue provides a good source of revenue to the BMIP, without adding any significant parking or traffic pressure to the area, since the venue events typically operate outside of normal working hours.

Bulkhead repairs were performed in 2004 to patch holes in the steel sheeting and backfill sinkholes that had formed in the asphalt. Additional bulkhead repairs and improvements to the Harborwalk and site were undertaken in 2014.



Figure 21: Overall view of recent steel bulkhead and riprap repairs at Wharf 8.

PARCEL Z: PIER 10

Located between Parcel L (Dry Dock #3) and Parcel K (Coastal Cement), Pier 10 underwent a \$1.5 million renovation in 1987-1988 in conjunction with the development of the abutting cement plant terminal. The Pier is approximately 150 feet long by 50 feet wide, and with the addition of floating docks, has been used in the past by lobster boats and the Boston Police Harbor Patrol

boats, as well as a public slip for short term docking. Figures 22 and 23 provide photographs of the existing Pier 10 facility.



Figure 22: Overall view of Pier 10 and Massport Berths 1 and 2 (in background).



Figure 23: View of the deck at Pier 10, looking east towards Dry Dock #3.



Recommended Improvements and Costs for Repairs

In reviewing the available reference reports and site conditions, HDR has identified the following list of repair projects for discussion. Where available, cost data for repair recommendations in the various reference studies and reports were converted to present-year (2015) dollars to better inform the economic assessment element of the Master Plan update.

There are a number of improvements needed to develop this combined area as a general marine terminal. These include:

- Repair of piers and aprons to allow the handling of ships and cargo
- Extension of the rail line into the terminal
- Redevelopment of the existing structures on site and the addition of new reefer and warehouse buildings
- Provision of utilities for reefer container storage.
- Security and access control enhancements
- Cargo equipment such as a mobile harbor crane on site
- Master development and investment plan

Roadway Infrastructure

Efficient trucking is critical to the operations of many businesses within the BMIP, and the EDIC/BRA has spent much time and resources to preserve and improve the truck routes in/around the BMIP, and minimize traffic congestion from automobiles. Recommended projects include:

- Reconstruction of FID Kennedy Avenue West and Access Roads, to connect with Northern Avenue, expected to cost about \$6 million, according to a 2015 TIGER grant application by Massport.
- Improvements to BMIP's interior roadways (costs estimated at \$960/linear foot to \$1,200/linear foot).
- Construction of a 50-foot wide apron to accommodate future shared use along the Massport Marine Terminal waterfront for multiple operators/tenants. A common apron will allow for efficient sharing of limited berth capacity and permit truck queuing, maneuvering and loading for transferring commodities between the wharf area and individual storage areas. Costs would be approximately \$450/LF.

PARKING

Surface parking is land-intensive, but relatively inexpensive to construct and easy to move from one parcel to another in response to changing development requirements. Structured parking is more land-efficient, and can produce more spaces in a compact footprint – although at a higher cost.

- Parking Garage costs are typically \$10,000 to \$14,000 per space.
- Parking Lot costs are typically \$1,900 to \$2,700 per space.



Parking demand for bulk cargo development is less than that for cargo warehousing development, and any bulk cargo development scenario within the BMIP should be able to accommodate its associated parking on site. Cargo warehousing development however, requires greater parking needs for personnel, handling equipment, and trucks that will not be able to meet its parking demand using on-site resources.

Intermodal Infrastructure

Extension of rail access to the MMT is desirable to support certain types of marine cargo use, such as heavy products (steel, lumber, wood pulp) or large quantities of bulk material being transferred over long distances (e.g. regional cement distribution). There are a number of constraints outside of the BMIP, which limit rail access and are somewhat problematic to ensure an efficient, economically viable intermodal option for development:

- Interferences with highly utilized MBTA commuter rail and Amtrak passenger rail lines into South Station limits freight rail operations to 1am-5am only.
- Train sizes limited to 10 cars only due to lack of rail yard space to store or assemble rail cars into trains.
- Insufficient clearances to enable use of double-stack rail cars
- Several at-grade crossings through South Boston (safety concerns)

Final design plans for extending Track 61 rail infrastructure within the BMIP were completed in 2008, with an estimated construction cost of \$7.4 million. In 2015, a TIGER grant application developed by Massport seeking federal assistance for the project had a price tag of approximately \$14 million.

While the extension of rail access to the BMIP may not be justifiable (economically or operationally) at the present time, it is critical that the existing rail right-of-way and infrastructure be preserved for possible future development and use.

Waterfront Infrastructure

The primary focus for the waterfront infrastructure in the BMIP should be to rehabilitate, preserve and maintain the North, South, and East Jetty structures. These are the primary deep-draft vessel berths within the BMIP, and are the most critical to enable over-the-dock marine industrial uses. Repairing these structures will be the key to developing Parcels M, M-1, and N as marine terminal facilities, with potential uses such as:

- Reefer container storage due to limited space at Conley Terminal
- Container chassis storage due to limited space at Conley Terminal
- Frozen and chilled perishable cargo processing and storage for agricultural products such as cranberries and frozen seafood.
- Reefer container trans-loading for perishable cargo.
- Storage and trans-loading of grain, legumes, pelletized hay and similar agricultural products now being increasingly shipped in containers.
- Trans-loading of heavy weight rail cars carrying wood and paper products once the rail line is extended into the property.



- Neo-bulk cargoes such as timber, processed lumber products and aggregates.
- Project cargoes
- Government Order Warehousing for cargo that has not cleared U.S. Customs including containerized cargo, cargo requiring additional inspections or bonded cargo.
- Empty container and chassis storage.

NORTH JETTY

In 2002, Massport considered expanding the North Jetty by 900 linear feet to allow a second berth. An additional berth would allow more flexibility for vessel operations at the terminal facility. The construction would require additional dredging and mooring/breasting dolphins with associated personnel walkways. Cranes operating at the berth would have a 110-120 feet height restriction, due to the proximity of Logan Airport. The estimated cost for development of a second berth at the North Jetty is \$18.5 million (Massport, 2002).

The 2006 condition assessment of the North Jetty included the following repair recommendations, with a total estimated construction cost of approximately \$3.4 million:

- Pile Extension/Encasement repairs – 80 piles
- Bulkhead patching
- Concrete beam repairs = 440 LF
- Concrete under deck repairs = 875 SF
- Concrete curb repairs = 220 LF
- Deck resurfacing = 21,000 SF
- Fender and mooring hardware maintenance repairs

Current water depths along the North Jetty berth are approximately -40 feet MLW. Future dredging is planned to -45 ft MLW, with an estimated cost of \$5.5 million.

SOUTH AND EAST JETTY IMPROVEMENTS

The South and East Jetties are also in need of significant repairs, as well as maintenance and upgrade of the waterfront structures to support any over-the-dock operations such as a marine industrial facility.

In 2010, EDIC tried unsuccessfully to apply for a \$14.4 million TIGER grant that would help support the estimated \$18 million cost to reconstruct the South and East Jetties. The proposed work included complete removal and reconstruction of the concrete deck structure, encapsulating the steel bulkhead in concrete, and installing concrete-filled steel sleeves over the support piles. The reconstruction would have given the facility an allowable live load capacity of 600 pounds per square foot, which would have been sufficient for use by the existing gantry cranes at Dry Dock #3. Other repairs included in the proposed work consisted of a new timber fender system and electrical service, potable and fire water, and vessel sewerage system upgrades.

DRY DOCK #4

Dry Dock #4 will require significant investment to stabilize the existing bulkhead structures and convert it into a useable marine facility. Costs to reconstruct the pier are not available at this



time, but would generally consist of oversheeting the pier structures, new fender systems and mooring hardware, and upgrades to pier utilities. One recommendation could be to relocate the water-dependent businesses at the Boston Fish Pier to be within the BMIP at Dry Dock #4, which would enable the Boston Fish Pier facility to be converted to commercial or residential use.

One report HDR reviewed considered the development of a vessel berth between Dry Dock #4 and the western edge of the MMT. Water depths are approximately -30 ft MLW along this side of the waterway. The overall width of the slip would be approximately 240 feet along the Dry Dock side. A new wharf could also be constructed on the western edge of the MMT, which could accommodate vessels up to 700 ft long (200-300 feet long vessels are more typical).

- It would be possible to construct a 60-foot wide fixed, pile-supported wharf over the existing riprap shoreline for 200 to 600 LF. This could allow commercial fishing vessel access and berthing to supplement the facilities at Boston Fish Pier.
- Western Wharf concept was estimated to have a \$6 million construction cost.

WHARF 8

The recent bulkhead improvements at Wharf 8 have prepared the site for future waterfront development, which might include the construction of floating docks or a fixed pile-supported platform to support water-dependent uses such as for a water transportation terminal, public access dock or for tour boat excursions. It is noted that the “temporary” pavilion structure is now more than 15 years old, and will likely need to be repaired, improved, or replaced in the next several years. Other improvements to the site might include the addition of permanent support buildings or improvements to increase public security at the venue and provide needed facilities for restrooms, storage, vending, and so forth.

Conclusions

Restoration of freight rail access to the BMIP is possible, but unlikely due to a lack of any pressing need by the existing industrial businesses (all are already set up for truck operations), as well as the physical and operational constraints that exist both within the BMIP as well as with the local regional rail infrastructure. That said, the rail infrastructure and right-of-way should be preserved for potential use in the future.

Significant investment is needed to maintain and upgrade the existing waterfront infrastructure, which is generally in poor condition. The North, South, and East Jetties are the most immediate concern, as they are located closest to the Main Ship Channel and provide the most opportunity for developing a fully utilized MMT parcel as a general cargo, bulk, break-bulk or transload facility.

Dry Dock #4 also provides relatively deep water access for small to medium sized vessels, but the structures at the facility are in very poor condition, and require significant investments for reconstruction and conversion to support new development for marine industrial or commercial use.



REFERENCES

- CE Maguire, Inc., *Preliminary Option Study and Condition Survey, Rehabilitation of Pier 10, Boston Marine Industrial Park*, Economic Development & Industrial Corporation of Boston, November 7, 1986.
- Childs Engineering Corporation, *Preliminary Design Report/Study – South and East Jetty Rehabilitation*, EDIC Project No. 1212, July 1995.
- Childs Engineering Corporation, *Notice of Intent for Rehabilitation of the South and East Jetty and Rehabilitation of Anchor, Bollard, Capstan and Dolphin Way at the Boston Marine Industrial Park*, January 1996.
- Fay, Spofford & Thorndike, Inc. Engineers, *Harbor Gateway Project/Meredith and Grew – Condition Survey Wharf at Berth 10, Marine Industrial Park*, May 9, 1989.
- Fay, Spofford & Thorndike, Inc. Engineers, *EDIC/Boston Marine Industrial Park – South Boston, Rehabilitation of Berth 10 – Phase I Report*, July 1992.
- Fort Point Associates, Inc., *Final Master Plan, Marine Industrial Park, EOE #8161*. December 1999.
- Massachusetts Port Authority, Business Development and Maritime Departments, *Massport Marine Terminal – Development Issues and Alternatives Analysis*. December, 2002.
- Parsons Brinckerhoff Quade & Douglas, Inc., *Draft Final Report - Massport Marine Terminal, North Jetty Inspection & Condition Assessment, South Boston, Massachusetts*. Submitted to Marine Terminal Development LLC on January 3, 2006.
- Thomas K. Dyer, Inc., *Massport Marine Terminal Master Plan Rail Access Feasibility, Summary Report, Boston, Massachusetts*. August 3, 2001.
- Vanasse Hangen Brustlin, Inc., *Final Report-Marketing and Economic Study for Track 61*, Prepared for Economic Development and Industrial Corporation (EDIC)/Boston Redevelopment Authority (BRA), Boston, Massachusetts. September 8, 2009.
- Vanasse Hangen Brustlin, Inc., *Railroad Track Extension Line Improvements at Boston's Marine Industrial Park (Track 61)*, EDIC Project No. 1262, October 22, 2008.

Regional Port Trends Analysis

Boston Marine Industrial Park Regional Economic Considerations

Introduction

HDR is part of a team led by Utile to update the master plan for the Boston Marine Industrial Park (BMIP). HDR is tasked with providing a description of the major trends in water-based transportation and trade that are most likely to affect the operations of the Port of Boston. To accomplish this, we have collected and analyzed information on high-level, broad economic trends and indicators of relevance to the Port of Boston and BMIP. We have also analyzed other regional ports that are potential competitors to the Port of Boston and its facilities. Finally, we provide an overview of the maritime shipping, fishing, and cruise industries.

The first section of this report provides an analysis of six regional ports, including Port of Boston. The next section offers insight related to broader maritime trends, based on interviews conducted with tenants at BMIP, previous studies, and industry knowledge.

Background

In the Port of Boston, Massport, Economic Development and Industrial Corporation of Boston (EDIC), and private companies support marine and other activities in the port area, generating jobs and other economic stimulus to the region. In fact, a recently completed Massport study concludes that in 2012, 50,042 jobs¹ were in some way related to cargo, cruise, seafood processing, and harbor tours and marina activity within the Port of Boston.

Of these jobs 50,000+ jobs, 7,091 were direct (e.g., cargo, cruise, fish processing, harbor tours). An additional 6,665 jobs were generated as a result of local purchases by individuals directly employed in marine activity, and 2,601 jobs were indirectly created by local purchases by the firms directly dependent upon the activity at the Port of Boston facilities. The study also suggests that there are 33,686 related jobs with users of the Massport and private marine cargo terminals, nearly 30,000 directly associated with container operations at Conley Terminal. The remaining related jobs are associated with the liquid bulk and petroleum cargo moving via private terminals in the Port of Boston.²

Within the Port of Boston, Massport remains focused on various cargo development opportunities with primary business sectors including containerized cargo, cruise ship operations and auto processing. EDIC properties serve a variety of different businesses, including a significant shipyard property in South Boston. The remaining marine businesses are private, consisting of firms handling petroleum, liquefied natural gas, scrap metal and bulk salt. There are also businesses that are not marine-oriented that are located within the Port of Boston and specifically BMIP.

¹ "Economic Impact of the Port of Boston," prepared by Martin Associates for Massport.

² "Economic Impact of the Port of Boston," prepared by Martin Associates for Massport.



Boston Marine Industrial Park Regional Economic Considerations

Introduction

HDR is part of a team led by Utile to update the master plan for the Boston Marine Industrial Park (BMIP). HDR is tasked with providing a description of the major trends in water-based transportation and trade that are most likely to affect the operations of the Port of Boston. To accomplish this, we have collected and analyzed information on high-level, broad economic trends and indicators of relevance to the Port of Boston and BMIP. We have also analyzed other regional ports that are potential competitors to the Port of Boston and its facilities. Finally, we provide an overview of the maritime shipping, fishing, and cruise industries.

The first section of this report provides an analysis of six regional ports, including Port of Boston. The next section offers insight related to broader maritime trends, based on interviews conducted with tenants at BMIP, previous studies, and industry knowledge.

Background

In the Port of Boston, Massport, Economic Development and Industrial Corporation of Boston (EDIC), and private companies support marine and other activities in the port area, generating jobs and other economic stimulus to the region. In fact, a recently completed Massport study concludes that in 2012, 50,042 jobs¹ were in some way related to cargo, cruise, seafood processing, and harbor tours and marina activity within the Port of Boston.

Of these jobs 50,000+ jobs, 7,091 were direct (e.g., cargo, cruise, fish processing, harbor tours). An additional 6,665 jobs were generated as a result of local purchases by individuals directly employed in marine activity, and 2,601 jobs were indirectly created by local purchases by the firms directly dependent upon the activity at the Port of Boston facilities. The study also suggests that there are 33,686 related jobs with users of the Massport and private marine cargo terminals, nearly 30,000 directly associated with container operations at Conley Terminal. The remaining related jobs are associated with the liquid bulk and petroleum cargo moving via private terminals in the Port of Boston.²

Within the Port of Boston, Massport remains focused on various cargo development opportunities with primary business sectors including containerized cargo, cruise ship operations and auto processing. EDIC properties serve a variety of different businesses, including a significant shipyard property in South Boston. The remaining marine businesses are private, consisting of firms handling petroleum, liquefied natural gas, scrap metal and bulk salt. There are also businesses that are not marine-oriented that are located within the Port of Boston and specifically BMIP.

¹ "Economic Impact of the Port of Boston," prepared by Martin Associates for Massport.

² "Economic Impact of the Port of Boston," prepared by Martin Associates for Massport.



In terms of marine facilities, Massport and the EDIC share a portion of the South Boston waterfront between the North Jetty and South Jetty. These properties are located in the South Boston Designated Port Area and are therefore limited to marine related activities. Specifics related to this issue are presented in the work of other team members. In addition, former Navy property was provided on the condition of being used for marine related commercial activities.

Regional Port Commodities

In an effort to better understand the types and quantity of cargo that are being shipped via marine facilities in New England, HDR reviewed US Customs data for New England's regional ports, including Boston and New Bedford; New Haven, CT; Providence, RI;; Portsmouth, NH; and Portland, ME . Imports and exports³ for each port were analyzed to facilitate a comparison of competitor ports and assess the role the Port of Boston plays in the northeast.

Total Imports for Regional Ports

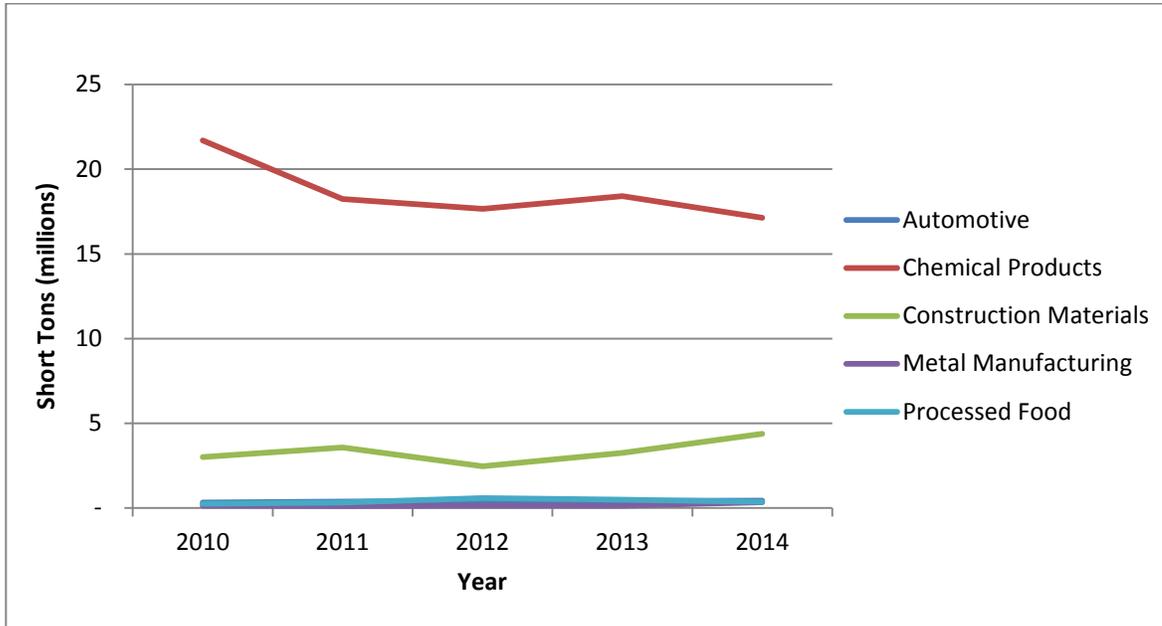
For the regional ports identified above, the total weight of commodities imported was approximately 23.3 million short tons in 2014. While this represents a decrease of 10 percent compared to 2010, the total weight of imported commodities slightly increased (0.4 percent) when compared to 2013.

Between 2010 and 2014, the top imported commodity clusters have not changed. As shown in Figure 1, Chemical Products is by far the top imported cluster with approximately 74 percent of total weight of commodities imported; equivalent to a total weight of 17.1 million short tons in 2014. This is followed by Construction Materials with approximately 19 percent of total weight of commodities imported and a total weight of 4.4 million short tons in 2014. Because the scale between the top commodities is so different, two figures are presented for imports.

³ The Charts presented in this report are based on HDR's analysis of the USA Trade Online Database. For more information, refer to: <https://usatrade.census.gov/>

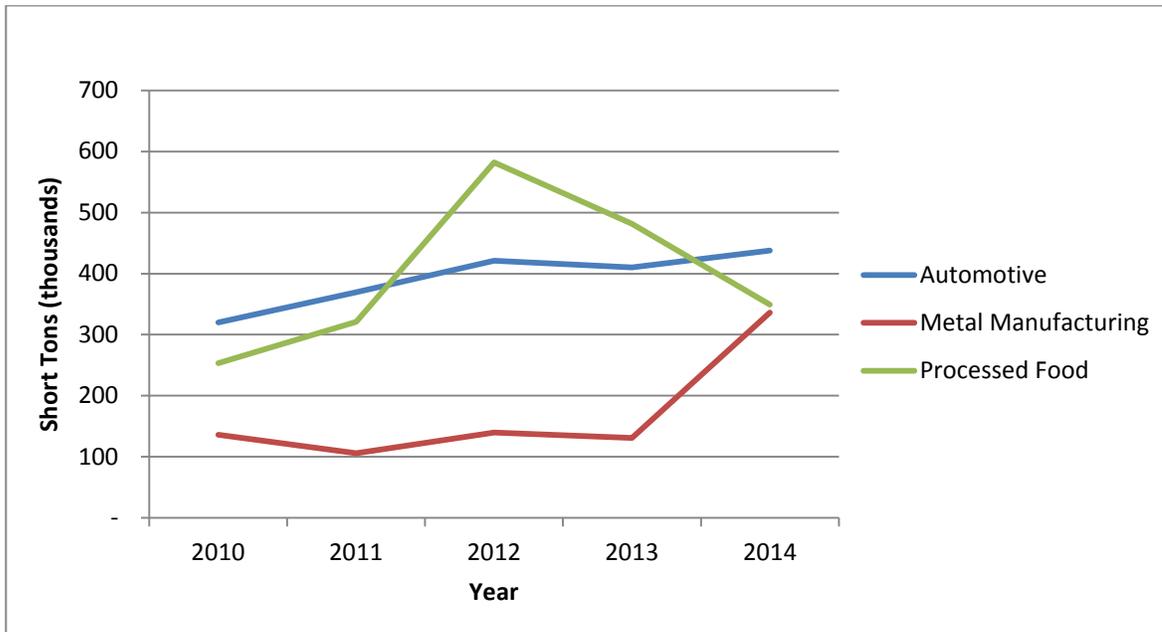


Figure 1: Top Imports of Regional Ports Combined



Other clusters include Automotive, Processed Food, and Metal Manufacturing, which combined represent a total weight of 1.1 million short tons in 2014. These industry clusters are shown in Figure 2 below with a different scale than Figure 1. It should be noted that New Haven Metal Manufacturing tonnage accounts for a significant portion of the jump between 2013 and 2014. In 2013, they imported 28,028 tons and in 2014, nearly 180,000 tons were imported. Port of Boston also experienced growth in this cluster; from 73,759 tons in 2013 to 117,360 tons in 2014.

Figure 2: Top Imports of Regional Ports Combined (continued)

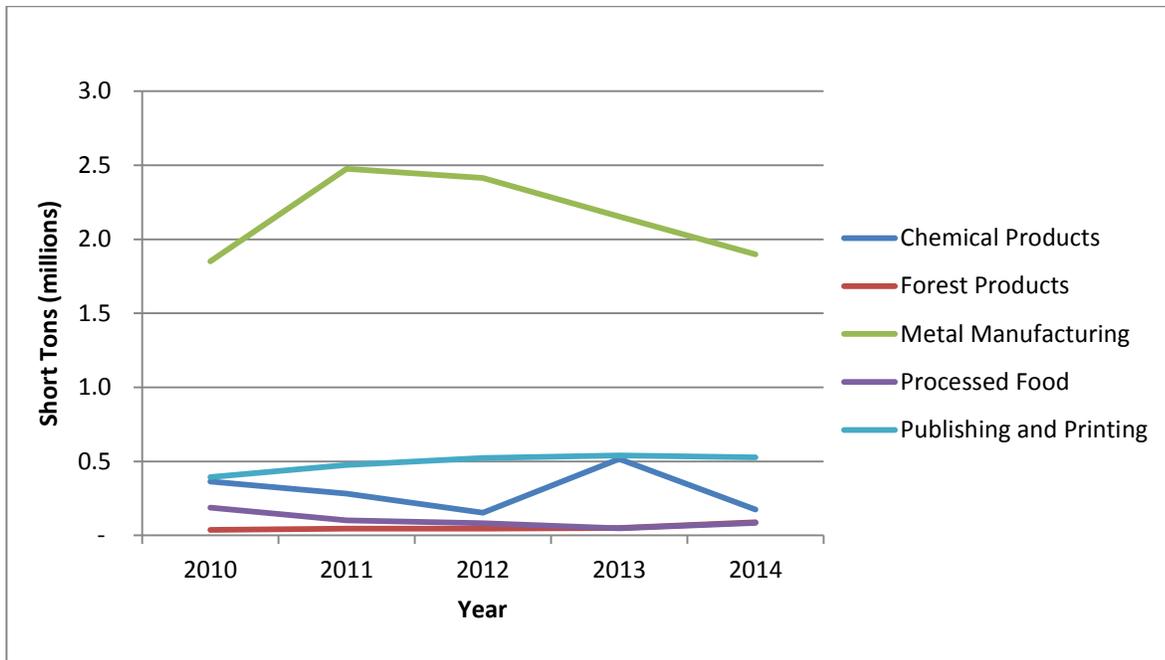




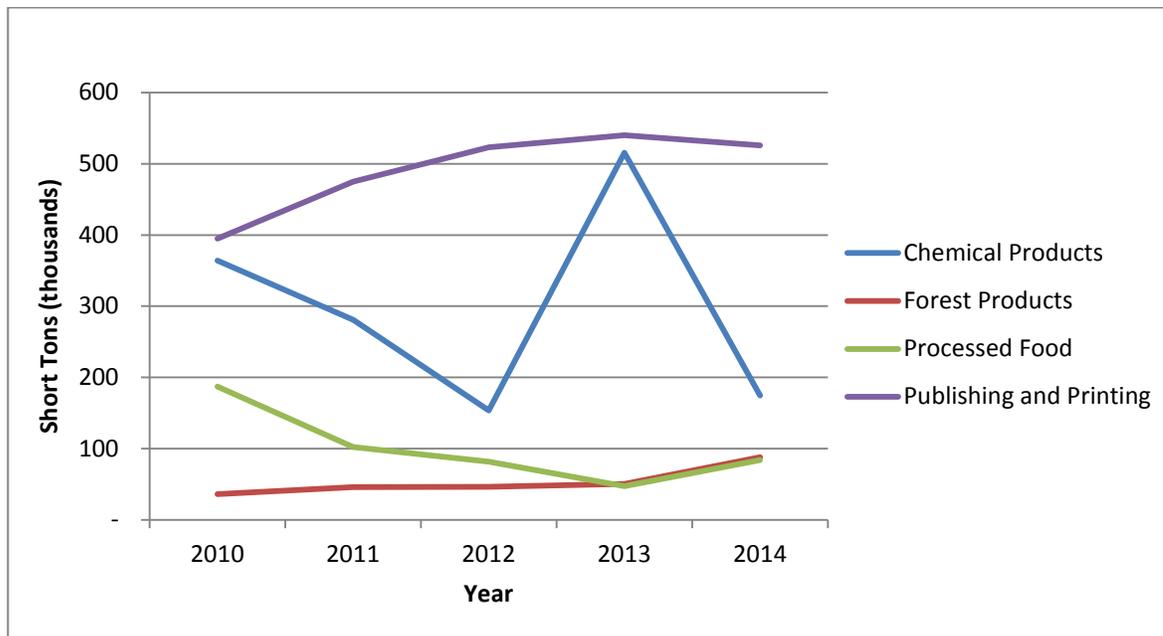
Exports

In 2014, the total weight of commodities exported from these regional ports totaled approximately 3 million short tons. This represents a decrease of two percent compared to 2010, and 15 percent compared to 2013. Between 2010 and 2014, the top cluster exported remained the same. Metal Manufacturing is by far the top export cluster with approximately 64 percent of total weight of commodities exported and a total weight of 1.9 million short tons in 2014. Figure 3 presents the top clusters of export commodities for the regional ports. A second figure for exports is also provided, because the scale between the top export commodity clusters is so broad.

Figure 3: Top Exports of Regional Ports Combined



The second top exported cluster is Publishing and Printing with approximately 18 percent of total weight of commodities exported and a total weight of 526,000 short tons in 2014. The third ranked export cluster, Chemical Products, has declined substantially from a total weight of 516,000 short tons in 2013 to 175,000 short tons in 2014. This represents a 66 percent decrease, primarily experienced at the Port of Portsmouth. Other export clusters included Forest Products, and Processed Food, as shown on a different scale in Figure 4 below.


Figure 4: Top Exports of Regional Ports Combined (continued)


Among the regional ports analyzed, excluding the Port of Boston, the Port of Providence ranks highest in terms of tonnage for both exports and imports.

In 2014, the total weight of commodities imported into the Port of Providence totaled 3,862,222 short tons. Over the past five years, Chemical Products accounted for the most significant share of weight, 82 percent of total imports on average. While Providence is #1 among the ports analyzed, its tonnage has been decreasing over time. In contrast, the Port of Portland, which imported a similar amount of cargo to Providence (3,823,971 short tons in 2014), has grown every year since 2010. Chemical Products also represents the largest share of import tonnage at this port.

For most of the ports (i.e., Port of New Haven, Port of Portland, Port of Portsmouth, Port of Providence), Chemical Products is the largest cluster of imports. Exceptions are New Bedford, where Agricultural Products is dominant; and the Port of Salem, where Construction Materials represent the most tonnage imported.

In 2014, the total weight of commodities exported from the Port of Providence totaled 991,147 short tons, an increase of nearly 43 percent from the previous year and 71 percent overall since 2010. Metal Manufacturing has been by far the most exported cluster, accounting for 90 percent of total exports on average. The Ports of Portsmouth and New Haven rank second and third, respectively, in terms of exported tonnage. Like Providence, most of their exports are in the Metal Manufacturing clusters.

In recent years there has been wide fluctuation in the types of cargo being transported and New England port activity in general. This is, in large part, because the container market has been fluctuating and because of overall world wide economy has been dynamic in connecting markets. The economy in New England fluctuates, as does the cargo that is transported, based



on the rest of the world. For example, New Bedford has experienced dramatic shifts in exports from year to year: in 2010, there were 9,966 short tons of Processed Food exported only once over the analysis period, nothing after 2010; in 2012, the Port exported 28,873 short tons of Chemical Products, whereas the previous year saw only 0.01 short tons. The magnitude of the shifts varies from port to port.

Summaries for each of the regional ports, as well as figures that visually display the export and import trends by port are provided in the Appendix.

Port of Boston

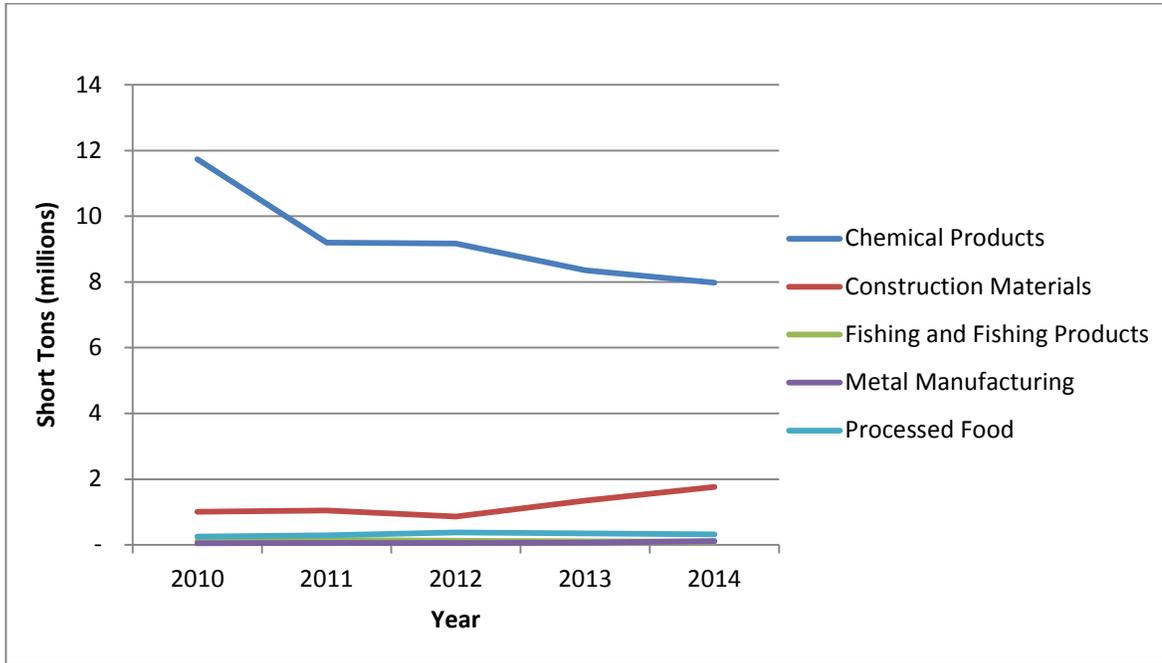
Like most other regional ports in the area, Chemical Products are the largest cluster (by tonnage) of imported commodities into the Port of Boston. Many of these products are being transported via container and then distributed across Boston and New England. Most of the businesses are likely consumer-based and benefit from relatively lower transportation costs because they are located relatively near the port. Also like many other regional ports, Metal Manufacturing cluster commodities represent the largest exports by tonnage leaving the Port of Boston by vessel. More detail is provided below.

Imports

In 2014, the total weight of goods imported into the Port of Boston via vessel was approximately 10.8 million short tons. This represents a decrease of 20 percent compared to 2010; however, from 2013 to 2014 the total weight of goods imported has increased by one percent. Between 2010 and 2014, Chemical Products remained the top imported cluster. The total weight of the Port of Boston's imports has decreased every year since 2010, from a high of 11.7 million short tons in 2010 to 8 million short tons in 2014 (32 percent overall decrease). The next top cluster, Construction Materials has increased from one million short tons in 2010 to 1.8 million short tons in 2014 (74 percent increase overall).

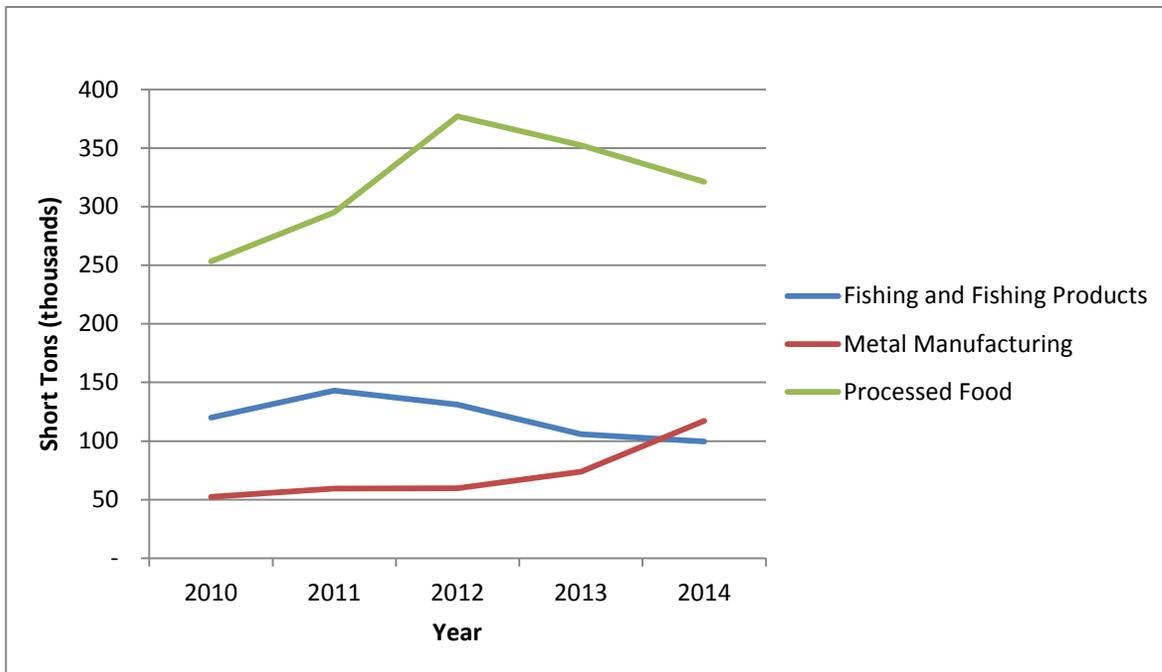


Figure 5: Top Imports for the Port of Boston



Processed Food, Metal Manufacturing, and Fishing and Fishing Products are the other most imported clusters. These commodity classes are shown below on a different scale to provide more detail.

Figure 6: Top Imports for the Port of Boston (continued)

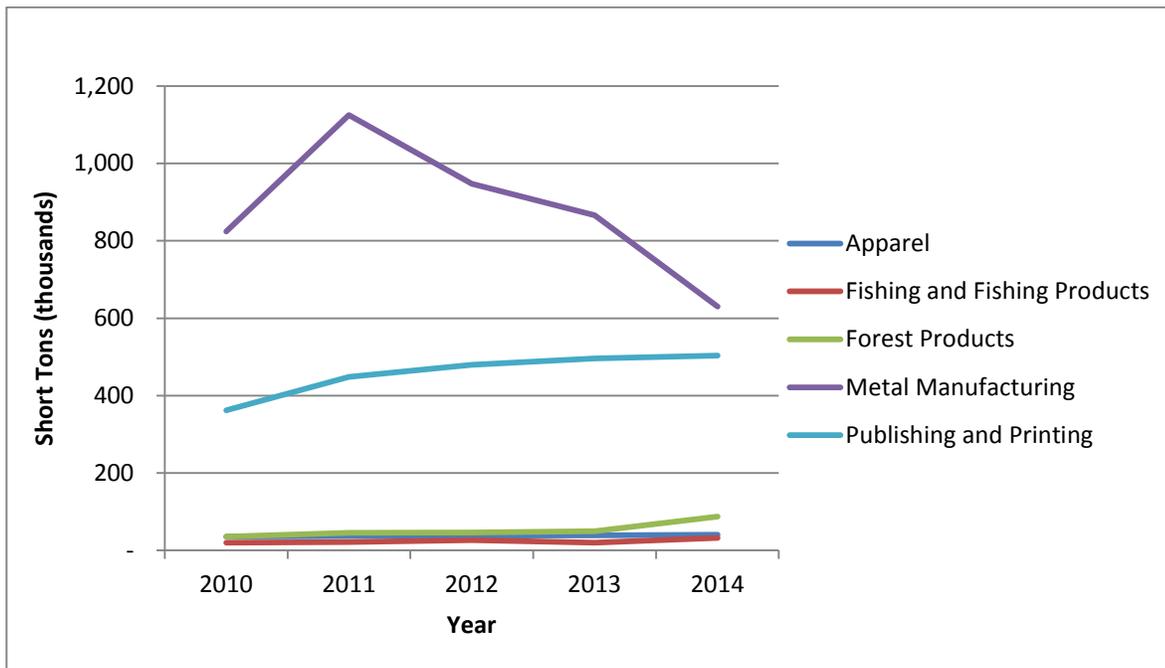




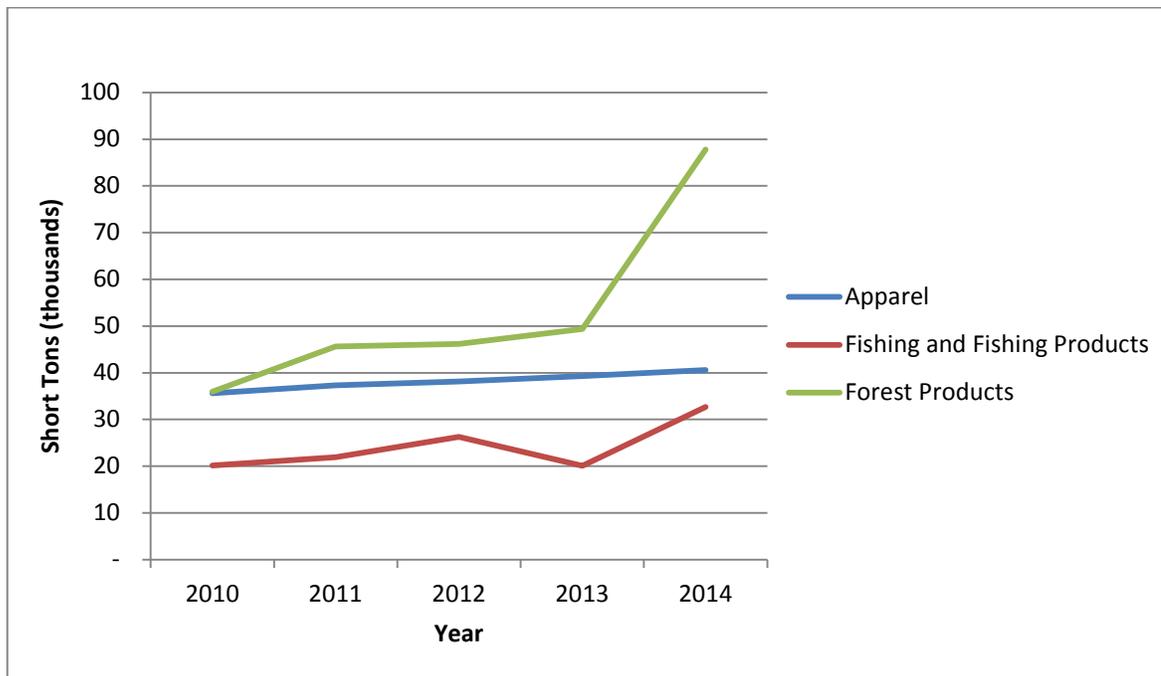
Exports

In 2014, the total weight of commodities exported from the Port of Boston totaled approximately 1.4 million short tons, all of which traveled via vessel. This represents a decrease of 2 percent compared to 2010, and 12 percent compared to 2013. Between 2010 and 2014, the top cluster exported remained the same. Metal Manufacturing is by far the top exported cluster (approximately 45 percent of total weight of commodities exported in 2014). However, it is important to note that the total weight of exports for this cluster has declined considerably from 824,000 short tons in 2010 to 630,000 short tons in 2014 (a 24 percent decrease). Publishing and Printing is the second most exported cluster between 2010 and 2014, and has grown over that period from a total weight of 362,000 short tons in 2010 to 503,000 short tons in 2014 (a 39 percent increase).

Figure 7: Top Exports – Port of Boston



Other Clusters include Forest Products, Apparel, and Fishing and Fishing Products, which have all increased in total weight exported from 2010 to 2014. Detail related to these products is provided below.


Figure 8: Top Exports – Port of Boston (continued)


Cargo Opportunities at the BMIP

Massport hosts an active container handling operation at the Conley Terminal in South Boston, which has increased over the past year. In 2013-2014 the Conley Terminal handled nearly 216,000 TEU's representing nearly 1.8 million short tons of cargo. This growth was more than 8.5 percent during this period, primarily due to expanded carrier service at the facility.

While there is much anticipation regarding the expansion of the Panama Canal in 2016, it is highly unlikely that the Port will service vessels in excess of 8,000 TEU's in the future. Boston's distance from the Panama Canal is significant, and the New England consumer market may not support the mega ships. In addition, there are physical limitations on vessel size at the Terminal; proximity to Logan International Airport limits crane heights, for example. Despite these realities, it is anticipated that the carrier volumes will continue to increase over the next several years based on various industry projections. Although all of the container operations are centered in South Boston, Massport also handled more than 38,000 automobiles in Charlestown and more than 169,000 short tons of cement.⁴

One of the gaps in Boston's capability to serve as a full-service port is the lack of a general purpose marine terminal, which could handle a wide range of cargoes including perishable cargo, break bulk cargo, neo-bulk and bulk. These types of facilities provide value added cargo services, such as warehousing, reefer storage, government order warehousing (for inspection and bonded control), trans-loading and other related cargo services.

⁴ Massachusetts Port Authority Annual Statistics for 2014



It is always an advantage to have a facility like this available, and port directors generally try to preserve as much marine infrastructure as possible. Most regional ports are able to handle this type of cargo, however factors such as Boston's port and labor costs make it marginally less competitive than some of these other ports. Many other New England ports utilize non-union labor and have different work rules in place than Boston. For bulk cargoes that can be handled at a general purpose terminal, Boston would be less competitive as compared to Eastport, Portland, New Bedford, Providence or New London⁵. Project cargoes are infrequent and there will always be situations where it is necessary to bring these types of cargo in to Boston, but Moran and Conley Terminals could accommodate these cargoes as needed.

Nonetheless, Massport and EDIC both share the Marine Industrial Park North, East and South Jetty areas. This property is significant in that it represents the only area in the port area where a general cargo facility could be developed if desired. There have been a number of proposals for this property, which Massport controls through a long-term lease through the City of Boston. Most recently, a warehousing and cargo facility proposal was made by a private developer; the developer had 10 years to build its proposed project but seemed unable to execute the plan. The longstanding development agreement was terminated in January 2015.⁶

Potential development of these areas at the BMIP is hampered by the highly deteriorated condition of the waterfront infrastructure along the property. The jetty structures are in poor condition, and require significant investment in repairs and upgrades to make them suitable for over-the-dock cargo operations. Additionally, the static landing weights are estimated to be low for cargo handling. Also of significance to potential development in this area is the lack of suitable freight rail connections to the BMIP. In various proposed waterfront plans, rail service could be added to the facility, though the costs to accomplish this connectivity are very high and rail operations would be severely limited by height restrictions, limited yard space within the BMIP to connect more than 10 railcars together, and interference with the highly utilized passenger rail lines at South Station.⁷

In addition to a general purpose marine terminal, there are several other potential marine uses for this property, which do not necessarily require deep water access, but do support maritime industrial uses. Based on what competing regional ports are handling, as well as historic trends, underutilized properties in the BMIP could potentially be developed to provide the following services:

1. Reefer container storage due to limited space at Conley Terminal
2. Container chassis storage due to limited space at Conley Terminal

⁵ Marine Terminal Tariff Database, IAMPE 2016.

⁶ <http://www.bizjournals.com/boston/news/2015/06/26/massport-braces-for-suit-involving-key-parcel-in.html>

⁷ Massport



3. Frozen and chilled perishable cargo processing and storage for agricultural products such as cranberries and frozen seafood.
4. Reefer container trans-loading for perishable cargo.
5. Storage and trans-loading of grain, legumes, pelletized hay and similar agricultural products, now being increasingly shipped in containers.
6. Trans-loading of heavy weight rail cars carrying wood and paper products; if a rail line was extended into the property.
7. Neo-bulk cargoes such as timber, processed lumber products, and aggregates.
8. Project cargoes (e.g. construction equipment and materials, wind turbine components, power generation components, military equipment and materiel).
9. Government Order Warehousing for cargo that has not cleared US Customs including containerized cargo, cargo requiring additional inspections, or bonded cargo.
10. Empty container and chassis storage.

Because there is a demand for these cargoes in the region, a number of smaller ports in New England have been focused on developing general cargo opportunities. Some of these cargoes, demanded in the Boston area, are currently handled in other ports and then transported via truck to the greater Boston area.⁸

If it was desired to construct a general marine terminal in an effort to be a full-service port, a number of improvements would need to be made. These include:

1. Repair of pier and apron structures to allow the handling of ships and cargo.
2. Re-establishing a freight rail line into the BMIP.
3. Redevelopment of the existing structures on site and the addition of new reefer storage areas and warehouse buildings.
4. Provision of utilities for reefer container storage.
5. Security and access control enhancements.
6. Provision of cargo handling equipment such as a mobile harbor crane on site.
7. Master development and investment plan.

It appears that the private sector may be unable to develop this combined property into a potential facility, as evidenced by the long-standing but unexecuted plans of the business previously entitled to redevelop the property into a marine use. As a result, the public sector may be in the best position to undertake this development if it is desired. Once infrastructure and other improvements are completed by Massport and EDIC, the terminal can be leased out for use or operations managed by Massport.

Cruise

The number of cruise passengers between 2013 and 2014 decreased by 17 percent with the Port handling nearly 317,000 passengers last year, compared to 383,000 in 2013.⁹ An estimated 86 cruise ship calls are expected in 2015. Boston's cruise ship business had exceeded 100 calls each year in the last decade.¹⁰ This does not, however, indicate a

⁸ International Association of Maritime and Port Executives Research Library

⁹ Port of Boston Activity, CY 2014, <https://www.massport.com/media/307786/PoB-Activity-CY14.pdf>

¹⁰ Massport Annual Statistic 2010-2014



weakening of the trade, only a market shift that occurs regularly. More than 23 million passengers are expected to cruise this year in North American markets, and 22 new ships are going to be introduced into the market in 2015.¹¹

While Boston is a tourist destination for the Canada-New England cruise market, the port's key strength is its turn-around or homeport trade accounting for 60 percent of the trade.¹² Boston's key advantages include its proximity to Logan International Airport and the wide range of air services available.

The port also has a strong drive-in market but has increasingly limited parking availability to accommodate that market, despite that the port district has a parking garage to accommodate a number of cruise ship sailings. If an expanded drive-in market is desired, parking capacity should be increased. There is space adjacent to and near the Black Falcon Cruise Terminal that could be utilized for the construction of additional parking garages. Additional conveniences such as connecting walkways and updated terminal improvements would also enhance the passenger experience.¹³

Boston's cruise market includes Bermuda, Atlantic Canada/New England, Caribbean, Panama Canal and trans-Atlantic cruises. These markets constantly shift, and Boston remains a strong and viable cruise homeport and port-of-call location. The number of ship calls and passengers has increased significantly since the late 1990's and is anticipated to remain strong.¹⁴

Ship Repair Opportunities

Boston has a unique asset in its large vessel shipyard facility, located at the BMIP. Managed by Boston Ship Repair, the facility is the largest in New England, and includes a 1,150 foot long drydock with a base width of 125 feet and a top breadth of 149 feet. The dock is capable of handling a wide range of modern ships. Cranes, shop space and laydown areas are also available at this facility, and the yard uses the Massport Cruise Terminal wet berth when available. This is equipped with steam, water, electrical and sanitation hookups.

The shipyard would benefit from the addition of its own wet berth with vessel support hookups. This could potentially be accommodated at the jetty berths on the Massport Marine Terminal and EDIC properties. In addition, the Port would be able to utilize a small floating drydock that could be accommodated at an expanded shipyard site. The port has an increasing number of smaller vessels such as ferry and excursion vessels, but there are no smaller vessel repair capabilities; the former repair facility in East Boston closed and the drydock was removed.¹⁵

At Boston Ship Repair, their focus is on Jones Act (US Flag) vessels, military and public vessels, cruise ships, and vessels in distress. Last year the company repaired five ships with 40 to 60 day overhaul periods, including some that were extended to 90 days in the yard. This level of service is expected to continue.

¹¹ Cruise Line International Association State of the Industry Report January 2015

¹² Massport Annual Statistics 2014, <https://www.massport.com/media/307786/PoB-Activity-CY14.pdf>

¹³ Massport

¹⁴ Cruise Line Industry Tracker, January 2015

¹⁵ Boston Ship Repair



To remain viable, the shipyard needs additional laydown area, shop space, a wet berth (not encumbered by other vessels not being repaired) equipped with full utilities, and a power system upgrade. The shipyard can currently offer up to 2,400 amps, but most modern vessels require 4,000 to 8,000 amp service. In addition, a rebuild of the electrical systems related to the two main drydock dewatering pumps is required. These are upgrades would require some, if not all, public funding assistance.¹⁶

Boston Ship Repair would also be interested in handling small vessel repairs if space and a shop area could be provided near the facility. This would include the addition of a small floating drydock. The biggest challenge, however, remains gentrification. As local non-maritime activities encroach on the drydock foot print, activities such as hull blasting and painting are becoming more difficult.

The market demand for ship repair is unique, and Boston hosts the **only major drydock facility in New England capable of handling a large vessel**. Ship repair in Massachusetts accounts for 500 direct and indirect jobs (100 of which are direct in the shipyard). This represents \$45.1 million in economic impact and .05% of the National GDP, which has remained steady over the past 5 years.¹⁷ Supporting expansion of the shipyard capabilities would potentially increase jobs in the region.

To build on the existing shipyard, the improvements highlighted above should be made. The development of a long term capital improvement plan by EDIC would be a good first step in ensuring that the marine infrastructure that is located at the BMIP continues to be maintained in a state of good repair and opportunities for expansion of marine activities, like ship repair, are accommodated. Additionally, EDIC could apply for Transportation Investment Generating Economic Recovery (TIGER) grants, which would support some of these potential improvements.

Summary

Based on data analysis and interviews conducted for this study, opportunities exist to expand the cargo, cruise, and ship building activities in the BMIP. The most significant limitation for the EDIC/Massport marine-oriented facilities in the BMIP is continued gentrification of the area.

The increasing demand for public space, development in non-maritime activities, increased traffic congestion, and environmental limitations present in the facility adversely impact marine industrial activity and its potential for growth. As noted, traffic issues are a factor on the BMIP itself, but they also extend into the surrounding area where increased development is taking place. A lack of rail access is also an issue longer term, if certain types of cargoes are pursued.

¹⁶ Boston Ship Repair

¹⁷ Shipbuilder's Council of America Annual Report 2014

Marine Industrial Demand Analysis

The purpose of this memo is to highlight and provide additional context to the attached presentation.

MARINE INDUSTRIAL USES

The DPA requirements concerning preference given to marine industrial uses. It is important to consider the difference between various forms of “marine industrial” uses. One form of marine industrial use is a requirement for direct “over the dock / on to the water” to execute their business. The second form of marine industrial is based on a historical perspective such as the traditional close physical linkage between the fishing fleet and seafood processing. However, improvements in logistic capabilities has allowed one part of the value chain (the fishing fleet) to no longer require co-location with the downstream activities (processing). Therefore, it is important to consider these distinctions when discussing demand for the BMIP as a “marine industrial” park.

For purposes of this discussion we have organized marine industrial into two categories:

Water Dependent Marine Industrial: An industrial or logistical activity requiring direct access to the water to execute its business. Examples include; ship building and repair, cargo carried by vessels, offshore energy landside connectivity, energy production requiring fuel carried by vessels, commercial fishing.

DPA Marine Industrial (Categorical Marine Industrial): Activities defined by state law and regulation that may have an over the dock requirement or a historic requirement for water access that is no longer required. Activities include activities such as seafood processing and wholesaling, vessel components.

The approach to demand considers these two different perspectives on “marine industrial” demand.

One important consideration when evaluating demand for marine industrial uses is the flexibility of building and infrastructure typologies. Can the infrastructure be used for something else if anticipated demand does not materialize thereby reducing our risks? And of equal importance, “can the activity be acceptable within the context of the DPA”?

Many of the activities in the DPA categorical marine industrial classification (such as seafood processing and distribution) take place in buildings that are indistinguishable from contemporary non marine industrial and logistical facilities. From a demand and development risk profile the buildings are not functionally limited to marine industrial uses. Therefore, overall industrial demand in addition to marine industrial demand should be considered.

OVERALL INDUSTRIAL DEMAND

- Industrial facility demand in the urban core of Boston remains strong with available inventory estimated to be between 1m to 1.4msftⁱ
- Contemporary flex industrial space is in high demand with lease rates 3x of vintage industrial spaceⁱⁱ
- Drivers of near term demand include growth in the biotech, life science and e-commerce fulfillment sectorsⁱⁱⁱ
- Continued growth in the local foods business and the evolution of elements of the maker economy toward becoming more sustainable physical products businesses can support additional demand but for properties at lower price points than e-commerce or life sciences^{iv}

MARINE INDUSTRIAL DEMAND DRIVERS

The BMIP team facilitated a session with the BRA and Massport to conduct a lead stream analysis to understand what the historical and real time interest has been for various parcels in the BMIP. Based on this analysis most of the demand fell into one of two categories. Break bulk storage but not necessarily brought over the dock as well as seafood processing. Seafood processing is a categorical use. Other expressions of interest for potential over the dock uses have been scrap materials but those are considered inappropriate for this area of the harbor.

To support this assessment a macro look was undertaken at various potential categories of marine industrial activity:

- Fresh food importing: With the exception of fish, it is highly concentrated on the US east coast. Philadelphia and Wilmington captures 85% of the market. The concentration of buyers and logistic capabilities particularly cold chain facilities makes dislodging this industry in any substantial way potentially difficult unless the support industries come with it. That is likely to be a function of scale which means a substantial relocation may be required. ^v

New Bedford has been trying to enter this market to gain better leverage out of its substantial downstream capabilities but has been unable to make a major penetration into the market. As stated in the Ports of Massachusetts Strategic Plan “trade has fluctuated over recent years and dedicated ocean service has not been sustainable.”^{vi}

Massachusetts possesses 77% of the cold chain capacity in New England but ports such as Portland ME are adding capacity. Several of these facilities are in or near Boston in areas under development pressure such as Widett Circle. ^{vii}

- Previously Owned Cars: 5 ports in the Northeast including Boston export previously owned cars.^{viii} AutoPort Boston recently added storage capacity and can handle 70,000 cars annually. ^{ix}

Previously owned cars do not require rail service. This may be an opportunity. The key driver is the availability of land for cars awaiting shipment. However these operations are highly sensitive to costs and the amount of activity maybe directly related to the activity levels of the auto import business due to the backhaul considerations for Roll On/Roll Off car carrying vessels.

- CruisePort: CruisePort forecasts show potential growth of 70k to as much as 410k passengers. Expansion of parking and staging will be required to accommodate this growth. ^x
- Ship Repair: The remaining drydock may have the potential to serve a ship repair facility focused on larger vessels unable to be accommodated by the shipyards in Gloucester, Fairhaven and other locations. With the existence of the Boston Yacht Boston a potential exists to service large megayachts (100ft+) requiring drydock-type services. This was not investigated in depth. There are at least 210 vessels offering regular charter service from New England with an estimated 600-800 cruising New England and Atlantic Canada. ^{xi}

A constraint may be the relative lack of apron space around the drydock as well as its location to perform some of the maintenance tasks of these vessels.

- Containerized Cargo: Conley Terminal is undergoing an expansion giving it the capability to double its capacity to 450,000 TEUs.^{xii} Based on examination of manifest consignee data there are approximately another 70k TEUs coming from NY/NJ and the West Coast to Boston.^{xiii} Therefore 100% capture of this activity could easily be accommodated by Conley. One of the limiting factors to utilizing its capacity is the limitations of freight rail between Conley and Worcester (the principal transshipment facility).

OBSERVATIONS and CONSIDERATIONS

There is substantial uncertainty regarding demand for “over the dock” marine industrial opportunities. There is no clear market opportunity for over the dock activity in the BMIP with the exception of additional cruise ship activity. Expansion of other port facilities at Conley and the Mystic River as well as competing ports in the region are likely able to meet the landside needs of any shipping activity. Moreover, the limitations on certain types of cargo (e.g. scrap metal & oil/chemical) shrinks the pool of opportunities. Limitations on cargo logistics caused by infrastructure limits in rail and truck access may impede the competitiveness of the BMIP. It is not clear that improving the readiness of the marine infrastructure at considerable cost (\$61m+) within the BMIP changes these dynamics.

Pursuing DPA categorical Marine industrial appropriate facilities is an opportunity. Marine industrial facilities such as manufacturing and processing can be used for other types of industrial and industrial service activity if demand for marine industrial uses such as seafood processing does not materialize. The tight supply of contemporary facilities coupled with several potential drivers of continued demand suggest an opportunity for “industrial” type development that would be consistent with the intent of the DPA across the urban core area of Boston.

ⁱ NP analysis of Jones Lang Lasalle, CBRE, NAI Hunneman Q3 2015 Industrial Reports

ⁱⁱ Ibid

ⁱⁱⁱ Ibid

^{iv} NP analysis of County Business Patterns, ETSY, Kickstarter, and Indiegogo data

^v Martin Associates, 2011. RI Ports Opportunities for Growth

- ^{vi} Ports of Massachusetts Strategic Plan, 2013 Technical Memorandum #4
- ^{vii} NP calculations from USDA Refrigerated Capacity Study, 2014
- ^{viii} Exporttrader.com
- ^{ix} Massport AutoPort description, Massport.com
- ^x CruisePort Boston October 2014 Board Presentation
- ^{xi} NP analysis of megayacht cruise chartering service websites
- ^{xii} Massport Conley Terminal Improvements, Dedicated Freight Corridor, Buffer Open Space Environmental Notification Form, May 2013
- ^{xiii} NP analysis of Datamyne Manifest Journals 2014 and Q1 2015

Mixed Industrial Uses

Draft for discussion purposes only; not a policy document.

The Raymond L. Flynn Marine Park (RFMP, formerly the Boston Marine Industrial Park) is a unique asset within both the Port of Boston and the industrial ecosystem of the region, but has recently struggled with underutilized lots and a lack of investment in the existing waterfront infrastructure. Further, changes in marine industry have reduced the need for “over-the-dock” or direct water access, while market pressures – namely the combination of low costs, readily available land or space, and location – make RFMP an attractive option for historically non-compatible uses, including offices, institutions, and others. Currently, these uses are restricted by existing regulations, including the city’s zoning code and the state’s Designated Port Area regulations. However, in order to preserve RFMP’s marine industrial capacity and attract investment to maintain and upgrade the waterfront infrastructure, the BPDA, as a part of its update to the marine park’s master plan, is recommending that certain compatible uses currently restricted be allowed or to expand within the RFMP. Certain compatible uses currently in the park have enjoyed successful growth while demonstrating an easy co-existence with marine industrial uses. Allowing these higher-rent uses would leverage private investment that is necessary to sustain the marine park and attract marine industrial uses, without compromising the present and future capacity of the marine park to accommodate marine industrial uses.

Potential compatible uses to be allowed in RFMP would include light industrial, research & development (R&D), and advanced manufacturing, which involves the use of advanced technologies to improve products and manufacturing processes. An example of an advanced manufacturer within RMFP is Autodesk, which recently opened a creative workshop in San Francisco equipped with advanced production tools and traditional machinery, including metal, wood, computer numerical control

(CNC), 3D print, and textile shops, an electronics lab, and a test kitchen. Their recently opened Building, Innovation, Learning, and Design (BUILD) space at the Innovation and Design Building in the RFMP serves as an incubator for startups focused on architecture, engineering, construction, and related industries. These startups have access to over 60 pieces of heavy-duty equipment, including six industrial robots and 11 workshops for 3D printing, laser cutting, CNC routing, and more. An advanced manufacturing use would include incubators/accelerators focused on manufacturing and makerspaces, but also, and perhaps more importantly, developers of marine technologies, such as autonomous vessels, a growing industry not explicitly allowed under existing regulations in the RFMP, but in which the marine park is ideally situated to be a leader. These uses may have a relatively higher job density and greater need for accessory office space than traditional industrial uses, but changes in contemporary manufacturing processes, mostly driven by advanced technologies, means they are no longer incompatible.

The proposed zoning for the then-BMIP in 1999 proposed three zoning sub-districts: Port Economy Reserve for parcels along the water’s edge that benefit from deep-water berthing; Waterfront Manufacturing for land-locked parcels or those with limited berthing areas, but proximity to truck routes and access to Logan Airport; and Waterfront Commercial for supporting commercial uses and along Summer Street. Mixed industrial structures would consist of a combination of allowed and conditional uses from the proposed zoning, such as the following uses:

- **Educational Uses**
 - Trade schools (conditional)
- **Health Care Uses**
 - Clinical laboratory (conditional)
- **Industrial Uses**
 - Advanced manufacturing (allowed)
 - General manufacturing (allowed)
 - Light manufacturing (allowed)
 - Maritime industrial (allowed)

- **Office Uses**
 - General office with accessory industrial or R&D (conditional/allowed)
 - Industrial office (conditional/allowed)
 - Office of wholesale business (conditional/allowed)
- **Research and Development Uses**
 - Research laboratory (conditional/allowed)
 - Product development/prototype manufacturing (conditional/allowed)
- **Trade Uses (conditional/allowed)**

These uses, among others, would provide the rents and investment necessary to support the build-out and to stabilize rents of maritime industrial uses without conflict.

Further, in order to preserve the marine industrial capacity of RFMP in the immediate future, contemporary industry and advanced manufacturing would be restricted to upper floors of buildings, while the ground floor would be reserved for marine industry. Marine industrial facilities are generally indistinguishable from other contemporary non-marine industrial facilities. Additionally, advanced manufacturing may require more office space, but they still require floor plates and heights that can accommodate heavy machinery. There are a number of examples of successful multi-story industrial buildings within RFMP, including 12 Channel Street (10-story, multi-tenant industrial building with manufacturing and administrative uses) and 27 Drydock Avenue (282,000-SF R&D/bio-tech tenants), but also across the country, such as The New York in Portland, OR; Building 25 in the Brooklyn Navy Yard; and the Genzyme Manufacturing Facility in Boston. Because changes in contemporary manufacturing have enabled the cohabitation of historically incompatible uses within one structure, necessary private investment will be made in RFMP without compromising the present and future capacity to accommodate marine industrial uses. Furthermore, all users not classified as marine industrial would be required to sign a disclosure accepting the maritime and industrial nature of the RFMP, which includes trucking, 24-hour business activities, and noises, odors, and particulates typical of such an area.

This recommendation for the RFMP is not without precedence, but has actually been a success across the country. For example, the City of Baltimore developed a maritime industrial zoning overlay district to preserve the limited deep-water frontage of the City's port for maritime uses, but does not exclude other industrial and advanced manufacturing uses. The overlay has been an incredible success not only in preservation, but in incubating both advanced and marine industrial uses. Additionally, the Mill River District in New Haven created an industrial preservation zone centered on a property tax stabilization structure to protect industrial uses from residential encroachment. However, in the case of RFMP, private, rather than exclusive public investment, will be leverage to preserve its marine industrial capacity. In the Brooklyn Navy Yard, WeWork's (a coworking office space) development of a 675,000-SF building brought the necessary private investment to the Brooklyn Navy Yard that enabled Capsys, an industrial user likely to be displaced by gentrification, to remain in the Brooklyn Navy Yard. Given this precedence, the BPDA is confident that the recommendation will not only preserve RFMP's marine industrial capacity, but attract the necessary investment in the marine park to incentivize future marine industrial uses and grow the regional industrial economy.



**boston planning &
development agency**



Raymond L. Flynn Marine Park

Appendix 2: Tenant Interviews and Survey Response



City of Boston



Client

City of Boston
Economic Development and Industrial Corporation d/b/a
Boston Planning and Development Agency

Consultants

Utile
Nelson Nygaard
Durand & Anastas
Ninigret Partners
HDR
Byrne & McKinney
Noble, Wickersham & Heart
Stantec

February 2022

Table of Contents

1. Tenant Interviews 270

2. Tenant Survey Response 283

Tenant Interviews

Meeting Minutes
February 24, 2015

Present
Tom Caterino, Contract Sources Limited
Drew Kane, Utile
Kevin Hively, Ningret Partners
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews Contract Sources LTD

Locational advantage of Design Center

- Contract Sources, LTD is a supportive business model; it benefits from proximity and clustering of other showrooms.
- The Design Center provided a pricing shelter being located in an Industrial District with lower rents.
- It's easy to move goods in and out of the Design Center due to highway access and available loading.
- The wholesale model is how most showrooms function in the Design Center. Very few traditional retail businesses
- There are currently 85 showrooms in the Design Center

Business Profile

- Contract Sources serves as a manufacturers rep. for nine different manufacturers of mostly commercial office furniture
- They have been in the Design Center for 21 years.
- Originally moved with a cluster of other showrooms and design tenants from downtown because of cheap space.
- They serve as a customer service liason.
- There are no physical movement of trucks, rather they work with designers who are outfitting space
- They are paid by manufacturers they represent on a commission basis.
- Functioning as middlemen, the showrooms are being hurt by internet sales. The model of the showroom is being reexamined.
- Showrooms and manufactuers closely watch the hiring and firing of design firms on a macro scale, as it directly affects their business.
- The construction/development industry has a large effect, as well. For example, new commercial office construction changes demand for product.
- They also watch building permitting on both a local and regional level
- 60% of Tom's business is in the Boston market.
- Residential showrooms have seasonal shifts in business, while commercial showrooms are steady year round.

Space Issues

- Space constraints are an issue for some businesses, especially residential showrooms, who might be trying to move products.

- As a result, the lease rates are higher on the ground floor because it provides easier access. This then affects businesses who can't afford the higher lease rates.
- Expansion to ground floor affects more traditional industrial uses that require loading and freight access.
- There are currently 10 showrooms on the ground level.
- Showrooms still rely on loading dock spaces which will soon be moved to the back of the building on Black Falcon Ave

Jamestown Effect

- Higher rents are becoming an issue with the Jamestown acquisition.
- Average lease with Jamestown is ten years.
- Jamestown needs to make money back on its investment, and future investments in upgrades. Therefore, it has to charge higher rents.
- Tom believes Jamestown wasn't aware fully of how the ground leases operate in the BMIP.
- They need to fill 500K SF of space.
- Pre-existing teneants welcome professional services firms, but others, such as law firms, are not as welcome because they have the effect of driving up rent costs.

Transportation Issues and Employee needs

- The expansion of the cruise terminal operations hurt commutes for employees
- There are issues with parking. Clients have difficulty finding parking when they come to showrooms

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

Architecture
& Planning

Meeting Minutes
April 1st, 2015

Present
Mike McCarthy, Design Communications
Chris Busch, BRA
Drew Kane, Utile

Distribution
All present

Design Communications, LTD

Meeting with Mike McCarthy of Design Communications

- Design Communications are fabricators of high-end signs at all scales. Their clients include Disney, Goldman Sachs, Biogen, resorts, shopping malls, museums (ICA and MFA) and even the UN.
- 110 employees at DC
- They have been in business since 1984.
- Business operates from 7:30am-11pm. Generally, two shifts.
- Shipping happens from 7:30am-4pm, but most of it is around mid-day.
- They are primarily concerned with rising rents in the IDB. They have only a few years left on their lease and they are concerned that they will ultimately be priced out of the BMIP.
- Their rent now is in the \$10-20 sf range
- DC doesn't want to leave Boston. The BMIP was a place that they moved to because they could afford the rent and still be in Boston where the majority of their employees live. Their talent pool comes from Boston, Somerville, Cambridge, etc. They would lose a specific skill set were they to move to the suburbs or Providence.
- There is a general concern about the loss of industrial uses in the industrial park. Tenants like Autodesk and Elkus Manfredi are changing the dynamic of the park, putting a strain on parking resources and raising the rents.
- DC is expanding. They could take on more space if they needed to. Currently, they have 40K sf. This includes all of the 3rd floor at 25 Drydock Ave and half of the 4th floor.
- A reduction of space because of rising rents would cause DC to have to take on different project types that are less space intensive which then affects their business and capacity to grow.
- Changing the loading to the back of the building off of Black Falcon Ave will disrupt their operations. Trying to get product in and out on cruise days will be close to impossible.
- The Silver Line is the best thing that's happened to them. They couldn't function without it. Most of their employees get to work by the Silver Line or biking.
- They employ young Boston residents. Many of the employees are artists, coming out of Mass ART, UMass, Museum School, etc. This job gives them health

insurance, retirement benefits, etc. Things that are difficult to find as an artist.

- Ideally, DC would like to see the EDIC be able to provide rent at a controlled or discounted rate for companies that are actually making products, real manufacturers to keep them in the BMIP. This provides a way to maintain the mission of the BMIP despite rising rents due to the presence of high-end R&D companies like Autodesk.
- They would be willing to move within the BMIP if they had to, as long as their rent remained manageable.
- Could a building like 12 Channel Street be a rent controlled building for companies that are actually fabricating things?
- DC is using a locally based composition of distributors, truckers, suppliers, and manufacturers for their products.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

utile

Meeting Minutes
March 3rd, 2015

Present
Tom Dolan, Au Bon Pain
Kevin Hively, Ninigret Partners
Pam Yonkin, HDR
Tim Love, Utile
Drew Kane, Utile
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews

Au Bon Pain

Au Bon Pain in the BMIP

- Founded in 1978 and located in the BMIP since 1982. One of the oldest tenants in the park.
- They were originally one company with Panera Bread, but then they split. Panera has since exploded in its growth.
- They have been in the park for over 30 years with no inclination to move.
- They have a lease through 2057 paying FMV rent.
- The building is both their corporate headquarters, as well as their bread and bagel baking center.
- They have 5 distributors they work with for other food products
- They also do product testing in the facility
- They have 210 employees in the complex, including IT and their retail store in the IDB.
- 50 of them are in the manufacturing facility.
- This is the only Au Bon Pain production facility.
- They like to have the executives near the test kitchen, but have entertained the idea of moving office employees to the IDB.

Future Development and Uses

- There are no expansion plans on site or in the BMIP, but they could make upgrades to their facility if they needed to.
- Excessive growth would be the only reason to leave the BMIP. They are comfortable in their space and don't seem to have any major logistical or space constraints.

Transportation Logistics

- They have 3 loading docks total and shipments going in and out all day long.
- No major conflicts though with other operations in the park.
- Access to the Haul Road is crucial to their operations. They are both sending trucks regionally to their local stores, as well as to Logan Airport.
- Fortunately, their bread and bagels have a long shelf life and are not fully baked in the manufacturing facility. They are finished at the retail store.
- Timing for them is important, but their product is not quite as perishable as the fish processors who need same day delivery and are concerned with increased traffic in the park. It is also a safety concern.

Parking Issues

- They have their own parking lot, which is beneficial. They aren't dependent on the EDIC deck for parking.
- Many of their employees rely on the Silver Line for transportation. In fact, the only day they've shut down was when MBTA service was suspended.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

utile

Meeting Minutes
February 24th, 2015

Present
Jim Jensen, Live Nation/Blue Hills Bank Pavilion
Drew Kane, Utile
Kevin Hively, HDR
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews

Blue Hills Bank Pavilion

About Blue Hills Bank

- 5,000 seat outdoor arena
- Temporary tensile structure
- Started as Harborlights on Fan Pier, but was only a seasonal venue during the summer, taken down each year.
- It was originally funded by the Pritzkers
- They are a founding member of the BMIP Tenant Association.

Operations and Logistics

- The concert season generally lasts from May to end of September/early October
- The operations at Blue Hill Bank (BHBP) don't generally conflict with other users in the BMIP.
- They have different hours of operation.
- Attendees park at the EDIC deck, the Seaport District or else take the Silver Line, depending on the demographic of concertgoer
- Rarely are there conflicts
- The Silver Line is crucial for getting people to shows.
- They have not had problems with truck access for food service deliveries or tour buses.

Role in the BMIP

- The BHBP is still considered a temporary use even though it has been there for 15 years
- The restaurants in the seaport benefit from the BHBP. They attract concertgoers before and after shows, picking up additional revenue during the concert season.
- The pavilion would have 18 months notice to move if a marine dependent use was found that needed that parcel because it is considered a temporary use. This likely won't happen.
- BHBP proposed a music festival in the MMT, but it was shot down by Massport.

Expansion Plans

- The property is exempt from Chapter 91 regulations
- A proposal was made for the development on Wharf 8 that would've passed Ch 91, but it was not selected.
- It consisted of restaurants and an additional music venue.

- They will be making improvements along Northern Ave entrance with ticketing and vending.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

utile

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utile.design.com

Meeting Minutes
February 12, 2015

Present
Warren Dibble, Harpoon Brewery
Drew Kane, Utile
Will Cohen, Utile
Pam Yonkin, HDR
Kevin Hively, HDR
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews

Harpoon Brewery

Location of Harpoon

- Harpoon was founded in 1986 and moved into its current location in 1987.
- The owners at the time liked being near the water and liked being near the city. Additionally, the site was relatively cheap.
- This location has helped the brand, with proximity to the city.
- This has led to the brewery hosting multiple festivals each year as well as creating a space that customers want to visit.

Logistics

- Finished goods go out of the Woburn warehouse. Local distribution is primarily done right from the brewery itself.
- Just in time logistics
- Harpoon is able to do all of its distribution inside of Route 128 from the brewery.
- Raw materials and packaging (and the quantities needed of glass) are all basically just-in-time.
- Harpoon's one tractor-trailer does approximately 5 roundtrips daily to Woburn from the brewery. It starts sometime around 5am, and ends sometime around 8 or 9pm. Traffic can become an issue. If it gets worse, it may require running more trucks.
- Rail would be a huge advantage, if it were available, but that is not preventing Harpoon from growing.
- Glass bottles are produced in Milford, and a truckload per day are sent.
- Barley is malted in Montreal and comes in by truck. It could conceivably be by rail.
- Hops is much smaller, only 3 or 4 trucks a year.
- So by being almost just-in-time production, congestion is a big deal.
- Spent grain is taken out at night and used as feed.

Future Steps and Expansion Ideas

- Any future rail corridor would be amazing for Harpoon, but the brewery understands the current infeasibility of expanding rail service to cover that spur. The most useful thing to ship in would be grain.
- That said, there is still plenty of capacity to continue to truck in additional grain. An extra silo for storage might need to get built but that is still an option.

- The brewhouse can still add plenty of capacity by adding shifts or working on weekends.
- The cellar and tanks are what are currently capacity constrained, but adding tanks would solve that.
- What would be most beneficial to Harpoon is continued development consistent with current patterns.

Current Production

- All of Harpoon produced about 200,000 barrels last year. About 150,000 were at the Boston brewery, and 50,000 were at the Vermont brewery.
- Adding cellar and tank capacity could probably allow the Boston brewery to increase its production to 250,000 or 300,000 barrels per year.

Production Methods and Efficiencies

- Cans are much more efficient to ship. You can fit about 50% more cans on a truck than bottles.
- Can sales are currently lower than bottle but sales are up 39% from last year.

Transportation Issues and Employee needs

- The front-of-house needs separate from logistics standard city upgrades like the MBTA, better sidewalks, etc.
- Even split of employees among the employees. 180 full time employees, 40 full time equivalents at half time. Vermont is 30 full time equivalents, so Boston is the other 140 or 150.
- There are 15 truck drivers, and about 50 production staff. Everyone else is sales and marketing.
- Some kind of ferry to get from North Station to the BMIP would be amazing.
- The cruise ship schedule complements the manufacturing schedule, in that they do not conflict.

Events and Retail

- Saint Patrick's Day, Harpoonfest, and Oktober fest are the three annual festivals.
- The beer hall was set up 2 years ago. Its hours are 11-11 Thursday through Saturday, and 11-7 Saturday through Wednesday. This is important for marketing efforts.
- BCEC expansion probably has more upside than trying to capture the cruise ship crowd.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

utile

Meeting Minutes
Month Day, Year

Client or Project Name Here
Description of meeting and location

- Harborlights also has a lot of a pre-gaming crowd, which is good.
- Harpoon doesn't actively promote their beer hall, so as to not alienate retail partners.
- The presence of Jamestown is a bit of a threat if additional retail is permitted. However, Harpoon may also benefit from capturing employees in the Design Center for after work happy hours.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

utile

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

Meeting Minutes
March 3rd, 2015

Present
Dana Griffin, Jamestown
Katie Scallon, Jamestown
Kevin Hively, Ningret Partners
Pam Yonkin, HDR
Tim Love, Utile
Drew Kane, Utile
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews
Jamestown Properties

Jamestown Property Acquisition

- EDIC Ground lease – Jamestown has a lease hold interest
- They have a 67 year lease on the Bronstein Center and a 45 year lease on the Boston Design Center.
- Jamestown has made \$30M worth of investments so far of a planned \$150M worth of investments (\$35M alone for window replacement)
- It was a 1.4M SF acquisition.
- There are 2,000 employees in the buildings (Bronstein and Design Center)
- 35% vacancy in IBD (Bronstein and DC)
- For an investment of that scale, it requires at least 70% occupancy
- The Bronstein building is allowed to go to 25% commercial per Ch 91 ammendment.
- They also had to file for an Article 80 project to do site improvements
- They have plans for streetscape and parking improvements on Drydock Ave and amenity retail to serve building tenants
- Plans for an additional parking deck on F1

Future Tenants and Uses

- There remains 50K SF of unallocated commercial space at DCB
- Dennis Davis receives and processes all lease requests.
- Autodesk is moving into the building and bringing 270 employees.
- They will have 30K sf of build space and 15K sf of support/office space
- They are being classified as an industrial use, as opposed to a commercial office use because there is an R&D component.
- Use definitions are creating murky territory when employee density is similar to traditional office, but is classified as industrial
- For example Mass Challenge a startup accelerator is classified as an industrial use.
- Jamestown needs to attract 88K sf of Maritime Industrial space to fulfill use requirements. Is there not a way to concentrate maritime uses rather than dispersing them across the park?
- Only one restaurant is allowed to stay open until 11pm

Transportation Issues and Employee needs

- Jamestown has rights to 1000 spaces in the EDIC garage.
- There are a lack of spaces on days when the cruise terminal is in operation.
- Any parking or loading behind building near the cruise terminal is relocated to make room for cruise terminal parking/operations.
- It is difficult to give tenants a guarantee on parking, which can sometimes affect tenant interest in leasing space
- Jamestown has submitted plans for a 1000 car garage located adjacent to the Design Center on Parcel F-1
- The South Boston parking freeze will determine ability to increase parking spaces in the BMIP.
- New tenants in the Jamestown buildings agree to a Transportation Demand Management (TDM) conditions before signing lease.
- Industry City in Brooklyn is another big project, but it is privately owned and wasn't beholden to the same type of use restrictions as the BMIP.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com



Meeting Minutes
March 3rd, 2015

Present
Tom Miller, Kavanagh Advisory
Lee Nilsson, Kavanagh Advisory
Pam Yonkin, HDR
Tim Love, Utile
Drew Kane, Utile
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews
Kavanagh Advisory

6 Tide Street Development

- 360K sf R&D development with 20K sf of ground floor retail
- They are trying to get 20K sf of retail space on ground floor, which is a lot, especially in that location.
- They now have a development partner and a prospective tenant for the building
- They were initially looking at Parcels M and N, but the BRA then proposed that they consider Parcel R for development.
- 1st Phase will break ground in 2016, but they may build phase I and II at the same time.
- Build-out will be an FAR of 2.0

Freedom Wharf

- Madison Marquette and the City are in discussions with the State DEP about the project
- It would require changing the DPA regs to allow for a % change to commercial development on flowed tidelands.
- Freedom Wharf development is awaiting status of final BMIP plan to see if it can move to the next stage

Future Development and Uses

- There is 4M sf of developable space in the park.
- The new industrial tenants require less space per person, which means a higher population density of worker. R&D space actually functions closer to standard office space with respect to square feet per person. This means more parking is needed.
- The EDIC needs to consider the “old vs new industria” parking needs in their development equations
- There is a concern that traditional industrial uses are being pushed out due to inevitable rising rents, partly brought on by Jametown and others that are not traditional industrial use.

Transportation/Parking Issues and Employee needs

- They are being allocated 196 spaces in the garage
- The are only allowed to park 60 spaces on the lot even though they could park the whole building if they could go one level underground.
- They need 1 space per 1000sf of development. That means 360 spaces. They are well short of that.
- The South Boston parking freeze has a big effect on their capacity for development.

- The C1-C2 garages could alleviate some of the parking pressure.
- The parking deck and north jetty aren't supposed to include parking for the cruise terminal, but the cruise terminal uses it.
- Jamestown is a “parking hog”. They have rights to 1,000 spaces in the EDIC garage.
- Based on the parking freeze, the BRA is allotted 3-4K spaces and only has ~400 left to distribute.
- Is there a way to solve cruise terminal parking outside of the BMIP?
- The parking bank/freeze will have a HUGE impact on the level of development and potential tenants.
- Commercial vehicles are exempt from parking restrictions. Could you just get commercial liscenses?

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com



Meeting Minutes
March 4th, 2015

Present
Roger Berkowitz, Legal Seafoods
Mary Cronin, Legal Seafoods
Kevin Hively, Ninigret Partners
Pam Yonkin, HDR
Tim Love, Utile
Drew Kane, Utile
Qingnan Liu, Nelson Nygaard
Chris Busch, BRA

Boston Marine Industrial Park Tenant Interviews

Legal Sea Foods

Distribution

Legal Sea Foods in the BMIP

- 195 employees – 109 employees in production and processing and 86 in administration
- They have a 40 year lease on their property

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

Space Needs

- Legal doesn't need space immediately. They have gone through a space and efficiency analysis recently and it was determined that they actually have space to grow in place.
- They would only need additional space if they decided to go to prepackaged products in which case cold storage that is locally accessible would be beneficial. Cold storage project on MMT would be great for them
- They have a highly advance processing plant

Logistics and Transportation

- Trucks go out early in the morning 5:30am. Employees are arriving at work at 2:30am
- Most trucks are going out locally to restaurants. A few are headed to regional destinations including New York, Penn and mid-Atlantic.
- Trucks that go to Logan either service the restaurants there or they are sending shipments to the Atlanta store.
- The only pre-packaged product going out is the chowder and stew
- The fish that is coming into the processing facility is coming from Gloucester or else coming from other distributors in the park.

Changing Character of the BMIP

- Legal definitely sees a benefit in being part of a seafood cluster both in terms of logistics and by creating an identity.
- They also support the mixed use character of development immediately adjacent to the park and feels like the mix brings a vitality to the district.

Parking

- There are issues with affordable parking for their employees. They provide some employee parking, but not all. Many of their employees take the Silver Line, but it doesn't run on the working hours, so many are required to drive.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

utile

Meeting Minutes
March 4th, 2015

Present
Jeff Wallace, North Star
Kevin Hively, Ninigret Partners
Pam Yonkin, HDR
Tim Love, Utile
Drew Kane, Utile
Chris Busch, BRA

Distribution
All present

Boston Marine Industrial Park Tenant Interviews
27 Drydock Ave - North Star Management

27 Drydock Ave/North Star in the BMIP

- North Star is the property manager for 27 Drydock Ave and all of its sub-tenants
- They acquired the building 13 years ago
- At the time there were few tenants that were more geared toward R&D in the park.
- Many tenants didn't want to come to the park, partly because of the agreements that had to be made with the EDIC. They resisted the additional role of the government in their lease arrangements.
- North Star felt that having the EDIC involved helped to maintain lease rates at a reasonable level, but it also imposed certain condition that might not otherwise happen.
- No one anticipated the sort of growth that the BMIP has witnessed.
- When North Star moved in the rents were \$6/sf and the building was 50% vacant. Now rates are closer to \$30/sf and the building is 100% full.
- The owners of Design Center and 27 Drydock put money into upgrades and maintenance of the building, but owners of the Bronstein Building didn't do anything to upgrade facilities.
- 27 Drydock Ave is 282K sf. It is one part of a six module building complex.
- Almost all of the tenants are life-science companies.
- Many spaces are built out as lab space.

Tenants and Space Needs

- Bio-tech companies moved into 27 Drydock because the space was cheap. First tenant was Immunetics. They moved from 4K sf into 9K sf. They have now grown into 20K sf.
- Dana Farber moved into the building in 2006 and are just now renewing the lease. They originally had 40K sf of space and have grown to 53K sf.
- At one point North Star hosted a small life sciences forum to ask companies what sort of space can't be found in the marketplace. They were told that people are looking for 2-5K sf of space for 2-3 trials. From this exercise they got enough interest in the building that they were able to lease 50% of a single floor because of the forum.
- If the city can keep the BMIP at a reasonable cost, it can continue to remain profitable.

- Rents in BMIP are going at \$40/sf vs. \$70/sf if you want to be in Kendall Sq or downtown.
- Lack of food options is one of the biggest complaints. Restrictions on commercial uses and in particular restaurants makes this an issue.
- The main demographic in the IDB/27 Drydock Ave is 25-40yr olds.

Working with EDIC

- The glacial pace of lease negotiations or changes to the lease can be frustrating. It took 1.5 years to have a single provision changed in their lease.
- Improvements are needed to the 4th and 5th floors, but the property company has no incentive to do it considering the way that the revenue share is structured. North Star would have to pay for improvements and then share in the rent revenue with the EDIC. This often doesn't pencil out. Therefore they are disincentivizing North Star from making improvements that might lead to higher leases.
- EDIC has made promises that a new master lease is in the works that they are developing a template for it. As it stands now, everyone's lease is different and the master lease itself is outdated. There are part of the lease that speak to the idea of a cooperative model from the 1970's.
- Despite protests there is not a use problem, but rather the users match the politics of the moment. R&D is considered a "general industrial" use even though it functions more like office. This is the space that is in demand and the type of space that much of the city is fostering/courting
- Can the city come to a plan that accommodates both traditional and new industrial users?
- Alterations to the master lease and regulatory restrictions would help with leasing space to tenants.
- Issues about byzantine master lease should be addressed in the plan. Is there a way that it can be simplified?
- A new master lease template was apparently used for 6 Tide St, but no one has seen it.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

utile

Meeting Minutes
Month Day, Year

Client or Project Name Here
Description of meeting and location

Transportation Logistics and Parking

- A large percentage employees in 27 Drydock rely on the Silver Line. Lack of parking is a BIG issue for prospective tenants, but hasn't been a deal breaker per se. At least not yet.
- Jamestown provides shuttle service for employees from South Station.
- BMIP could provide more alternative transportation options like additional Hubway, Car-to-Go stations, Bridj Bus, etc.
- Not sure how to solve parking problem considering the role that the parking freeze plays in the equation.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

utile

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

Meeting Minutes
March 4th, 2015

Present

Richard Stavis, Stavis Seafood
Kevin Hively, Ninigret Partners
Pam Yonkin, HDR
Tim Love, Utile
Drew Kane, Utile
Will Cohen, Utile
Chris Busch, BRA

Distribution

All present

Boston Marine Industrial Park Tenant Interviews

Stavis Seafood

Stavis Seafood in the BMIP

- Stavis Seafood has been in business since 1929 and has been located in the park since 1984
- They were originally located at 148 Northern Ave
- They are currently leasing 40K sf of space and just added another 23K sf of space in the Bew Boston Seafood Center
- They are a receiver and importer of fresh seafood and frozen seafood products.
- They have 135 employee, 10 of which are in other states
- Their total employment sometimes shifts up and down based on opportunity, whether its seasonal or the type of product that is being brought in might require more manpower
- There is an effort to hire more local people. However, they have been running into the problem of not being able to attract local residents because of perception issues.
- It is tough to advance internally at Stavis because lack of communication is a big hindrance.
- Immigrant group have a tendency of wanting to stay together and if you aren't able to speak fluently, it can be difficult to move beyond a starting position
- Stavis is constantly upgrading his facility
- Putting such improvements and investments into his business means that he relies on/expects certain advantages of the park like lower rents and acces to the highway.
- The location is the biggest reason for Stavis being in the BMIP. Highway access and being part of a seafood cluster is crucial to operations and identity.
- Stavis offers 165 different fresh items and 1,100 frozen
- They are a top five fish company in MA and top 50 nationally.
- They supply to distributors, chain restaurants, cash and carry and fish wholesalers.
- There is no retail outfit though.

Changing Character of the BMIP

- Stavis Seafood and some of the other legacy tenants in the park are threatened by the presence of property owners like Jamestown coming in and changing the dynamics and real estate conditions in the park. Higher rents are not something that traditional industrial tenants can absorb.

- It also represents a change in the mission of the park which is to provide working class jobs to Boston residents. The jobs that are coming into the park are often highly educated, skilled and technical
- You can't use the standard metrics of development for the BMIP. IT is a unique condition in Boston
- High rents will drive out tenants.
- There is a concern about gentrification of the park. This even has safety repercussions. More pedestrians and bicycles in the park means a greater risk of accident.
- There is a need for separated bike lanes
- Stavis has a concern that the industrial needs of the park are not being met. There is a feeling that the interpretation of what "industrial" means it too loose. There needs to be a better definition of use.
- The Master License is the biggest protector.

Logistics and Transportation

- They are an importer and receiver of fresh and frozen seafood
- Frozen product is coming in by truck if it is domestic
- Boston is Stavis' hub, but they have a facility in Miami for fish that is coming in from Sout America.
- Dredging of the harbor could be a huge opportunity for Stavis seafood. They could bring in a 100 containers a year.
- Deepening the harbord and repairing the jettys could be a marine renaissance for Boston/New England
- Boston is a secondary hub, but with the dredging it could be a primary hub for seafood and maritime.
- Traffic casuses alternate routes to be taken, which is an issue for a company that relies on just-in-time operations.
- It is tough to figure out how many trucks per day are moving in and out of the warehouses since operations/demand changes so quickly.
- They've tried counting before
- Growth assumptions have always underestimated growth of industry
- The BMIP in a point of aggregation. It is a one stop shop for seafood wholesalers and regional distributors
- 60% of the fresh fish supply comes in and out in the same day.
- There needs to be additional space for staging trucks. Right now many of them line up along the side of streets. There is not a formal staging area per se.

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com



Meeting Minutes
Month Day, Year

Client or Project Name Here
Description of meeting and location

- Stavis has 9 docks.
- 4 trucks in the yard and 5 more trucks on the street.
- It would be tough to adjust hours to avoid increase in traffic around and in the park. Also, the business is not seasonal.

Changing Character of the BMIP

- A parking garage on parcel C1-C2 would be crucial to getting people off of the roadways during cruise passenger season/hours

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

utile

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617) 423-7200
utiledesign.com

Tenant Survey Response

What is the name of your business?	Please list a primary contact and address	How long has your company been in business?	How long has your company been located in the BMIP?	Please list the number of employees company wide.
908 Devices Inc.	Kevin Knopp CEO, 27 Drydock Ave. 7th Floor, Boston MA 02210	3 years	3 years	45
ABP Corporation	Tom Dolan, One Au Bon Pain Way, Boston, MA	30 years	26 years	?
American Society of Interior Designers	Nina Hayes One Design Center Pl suite 544	40 years	20 years	1
Ann Sacks	Kate Linnemann 1 design center place ste 317 Boston, MA 02210 617-737-2300	36 years	10 years	50
ARC Document Solutions	Michael McFadyen, 23 Drydock Ave Suite 620E Boston MA 02210	25 years	Less than a year.	1,250
Backstage Hardware	Jim Robichau 21 Dry Dock Ave.	20 years	10 years	4
Baker Design Group, Inc.	23 Drydock Avenue, 6th Floor, Boston, MA 02210	17 years	8 years	26
Blue Hills Bank Pavilion	Jim Jensen, GM - 290 Northern Ave., Boston, MA 02210	22 years	since 1999	6600 full-time, 13,000 part-time
Boston Beer Company	Christopher Cote 1 Design Center Place, Suite 850, Boston, MA 02210	30 years	since 2006	1200

Please list the number of employees working at BMIP.	Are there other facility locations? If so, please identify the location.	Approximately what percentage of your employees live in the City of Boston?	What type of employees do you have?				What are the start and end times of most employees' work days? Please indicate days of the week, e.g. M-F or M-Sat	What are your reasons for location at the BMIP? Please list briefly.
			Service	Manufacturing	Other	Manufacturing		
40	Chapel Hill, NC and San Jose, CA	15%		Manufacturing	Science & Engineering		M-F 7am to 7pm	Access to talent, proximity to airport, close to downtown
Approximately 200 full/parttime	Cafe at 21 Drydock, IT Support at 25 Drydock, Commissary at 27 Drydock, Corporate Office at One Au Bon Pain Way	?		Service	Manufacturing		M-F 8:00 - 5:00	Industrial use, rent, convenience
1		100%					Mon through Thursday 9 a.m. to 3 p.m.	Design Community
4	GA, NY, FL, IL, MI, WI, TX, CO, CA, OR, WA, Vancouver, BC, London, England	25% - Dorchester		Service	Sales		M-F 8:30 to 6pm (we are open 9-5)	The Boston Design Center
8	Over 200 locations world wide.	15%		Service			M-F 8am-5pm	Relocated from Washington Street to be closer to clients.
4	N/A	75%		Service			M-F 7:30-5:00	Location in Boston and reasonable rent
26	No	8%		Service	Manufacturing		7:30am M-F	Affordable and good flexible space.
8 full-time; approximately 400 part-time seasonal.	In the Greater Boston area, we also manage and operate Xfinity Center in Mansfield, MA; House of Blues, Boston; The Paradise; Brighton Music Hall; and the Orpheum Theater.	50%		Service			On show days, many employees work from approximately 8 am - 1 am; most event employees work between approximately 5 pm - 11 pm on event days.	At the time of our relocation from Fan Pier in 1999, our location was the only waterfront site determined to be available by the Mayor's office and BRA.
225	Yes, Jamaica Plain, MA, Lehigh Valley, PA, Cinchatti, OH	30%			Corporate Office		M-F 7-7	Moved in before a lot was in the area. Area is growing.

What attributes of the BMIP are advantageous for your business?	Are there operational constraints that impact your business? Please describe.	Are there infrastructure constraints at the BMIP that impact your business? Please describe.	Are there facilities that are currently not available that would enhance expansion plans? If so, please list them.	Would your business benefit from freight rail access, passenger rail, or both? If so, why?	Would your business benefit from ship-to-shore access? If so, why?
reasonable rents, high tech / biotech neighbors	parking is a problem for visitors to the company – plus for employees but visitors is main concern. Need dedicated spots for leaseholder companies that can be used for visitors	parking is a major problem. Companies also need to be able to have their name on the exterior.	27 drydock has lab space, but other areas of drydock center do not. need more high tech lab presence to provide for more soft options. 27 Drydock is at capacity.	passenger rail access would be an improvement over the silver line, however, it is sufficient.	no
Same as above	Increased traffic in the area and increased rent	Just traffic & public transportation	No	Passenger rail	Convenience for employees
Design Center activities				no	
	yes, the ability to sell direct to consumer	limited parking for both employees and clients, traffic congestion has significantly increased on Congress and Summer Streets. The light goign to the pike east/west entrance needs to be policed better - people run it and cause back ups	n/a	yes - ease of access for consumer and ability for employees to utilize public transport	no
Public transportation and location.	High cost of electricity and hvac systems.	Not in BMIP control but all of our staff use public transportation and the failure of the MBTA has cost several days as well as many lost working hours on long commutes.	Not at this time.	Passenger rail as related to commuter rail/MBTA.	No
The large concentration of industrial business	The lack of parking the building is my biggest prolem. Compounded by the landlords failure to deal with people abusing the short term parking/	No		No, I don't think it would have an impact	Don't know
Affordable and close to town.	Cost of space and location.	This is a parking shortage.	Additional Parking Garages	No, not necessary.	No, not necessary
Being at the border between the industrial users of the BMIP and the new retail/restaurant/office and new residential construction provide a uniquely accommodating setting for our business.	We generally avoid weekday/daytime events when our traffic and parking needs would conflict with the needs of other area businesses.	No	No	Passenger rail would give our patrons another valuable public transportation alternative for attending events.	No
In Boston, close to downtown. T access	None right now	No transport to South Boston	None	Passenger rail	Yes, easier getting to and from work.

Can the BMP accommodate your business' future growth plans? a. if yes - no follow up question b. If no, why not?	Do you have business relationships with other tenants in the BMIP? Please explain.	What supporting services would you like to see at the BMIP?	What is the use category of your business?	Please list the size of your buildings in square feet.	Does your business require loading bays? If so, how many are there currently?
I hope so, but I am concerned. We like the location but parking and lack of exterior signage for businesses is a problem	not formally, however, several exchanges of knowledge have been very helpful.	electric car charging stations were put in at 27 drydock but are blocked constantly. hubway bikes is a fantastic add. Continue food trucks. Need a program to get outdoor signage.	Research & Development	16,000	yes. today we are on the 7th floor and use freight elevators to ship pallets of product. loading bays are extremely important to bring in equipment as well.
no	Yes. Landord at Drydock	Better public transportation	Manufacturing	Listed In lease plus 10,000 sq'	yes - one
					no
yes - if the ability to sell to direct is allowed	no	drug store, restaurants, daycare	Retail	4,700	not regularly - once a qtr
Yes	Yes one of the architects are working with the landlord on our new space.	More parking	Other	4,000 rented from Jamestown.	Yes, large loading dock available or 1 bay works.
Yes	Yes, a good percentage of my business comes from other companies in the area. From the shipyard, to fish process, manufacturers, and Mass. Port.	More variety of shops and food vendors	Retail	My space in design innovation business is 6500 sq/ ft	Yes, I need at least one.
Yes!	Yes!	Just easier parking.	Office	9,000 sq ft	Not required
Yes	Yes, with Harpoon Brewery, Au Bon Pain, Legal Seafoods.	More parking facilities	Other	Main Pavilion, including stagehouse - approximately 60,000 square feet; ancillary buildings (box office, restrooms, dressing rooms, admin) approximately 8,500 square feet. Not including seasonal tented spaces.	Yes. There are two loading dock bays.
Yes	We have people we do business with.	More transportation to and from South Boston, more bike racks, more convenience and food solutions	Office	60,000 sq ft of a floor	No

Do you have exterior accessory storage?	What are your hours of operations and peak times?	How important is truck access for your business?	Does your business rely on the dedicated truck haul route?	If you rely on truck access, what size of trucks do you primarily use?	On an average day, how many trucks enter your property?	What are the peak times for freight/loading activity?
No	7am to 7pm. Peaks 9am to 5pm	Very important	No	box trucks need access for equipment	3	10am and 4pm
No	M-F 8:00 - 5:00 Morning and Eve	Very important	Yes	30' trailers & smaller delivery trucks	8-10	Morning
No	open 9-5, peak is 10-3	Not relevant	No	n/a	n/a	n/a
No	M-f 8am-5pm Peak times 1-3pm.	Very important		Varies depending on vendor, tractor	3	Early morning, late afternoon.
No	M-F 9:00-3:00	Very important	No	All sizes from pickups to 18 wheelers	2-4	10-2
No	7:30am to 6:30pm	Not relevant	No	Not required	None	None
Yes	We generally operate, open to the	Very important	No	53' tractor trailers	4	8 am - noon and 11 pm - 1 am.
No	9-5	Somewhat important	No	All	2	9-4

Does your business require water access?	Can you describe your peak shipping times?	Is your business energy intensive? If so, please describe.	Does your business generate its own energy?	Do you use the marine facilities? If yes, which ones? If no, why not?	Do you utilize Logan Airport for transportation of your products? If yes, is it primarily for exporting your product or importing inputs to production?
No	10am and 4pm. deliveries and shipments of product / equipment	moderate. we have machining centers and clean rooms	no	no	yes, both, via logistics providers of UPS and FedEx
No	Morning	?	No	No	No
No	n/a	no	no	no - we are a retail business - our warehouses are located in VA and OR.	no
No	Our UPS pickup is at 3:30pm.	Yes we use multiple large format and small format copy equipment.	No.	No	No
No	The middle of the day	No	No	No	No
No	None	Not energy intensive	No	No	No
No	NA	For concert event lighting systems only.	No	We previously used dock facilities for the All Access Boston Harbor program run by Save the Harbor and for water taxi service. Since the docks were removed and new docks opened at Liberty Wharf, water taxi and the All Access Boston Harbor program now use those nearby facilities. (All Access Boston Harbor still uses the Pavilion for pre- and post-excursion educational programs.	NA
No	No	No	No	No	No

What other regional facilities (e.g., airports, marine ports, railroads) do you use in delivering your final product or obtaining inputs for its production?	How many customers/visitors do you typically get per day?	Is parking a concern for your business? Why or why not?	How many dedicated parking spaces do you have?	How many parking spaces does your business require at peak?	Where do your employees park? (list all known locations)
none	3 or 4 visiting groups of 2-6 people each per day	yes. Employee parking in a garage and a walk is okay --- but visitors need a dedicated space paid for by the company. We rent spaces but they are always taken by others illegally.	rights to 8, we have 3 leased today and need to increase, but are concerned as they are always taken.	for visitors we require 4, and for employees we require 25	garage near design center
	Support Center 10-12 Cafe - Several hundred	Yes Employees & visitors coming to and from work	50+	100	Dedicated lot and garage
n/a	15	yes, our clients come to see our showroom and they bring clients. If parking is not available, they do not come in. Our staff needs to be able to come and go from their spaces so they can go see their clients and easily return to the bld after appointments		10	2 in VPNE lot monthly pass, 1 Summer st. 1 public transport, occasionally at VPNE
None	3-6	Yes, we are on the 6th floor so customers need to park when bringing us work or picking up.	1	2-4	Parking Garage, take public transportation.
None	20-50	Yes, if people can't park they won't shop here	0	4	They all take public transportation due to lack of affordable parking
None	2 to 4	Yes for employees and customers	8	12	23 Drydock &
NA	Average concert event approximately 3700	It's a concern, but has never posed a problem because our patrons tend to arrive when other business tenants/employees have left and spaces are available.	Four, plus loading dock area truck/bus parking.	Depends on the audience demographics. At most for a sold-out show with most patrons driving, approximately 800-1000	For those who don't use public transportation, primarily EDIC garage
truck, rail and ship	50	Yes, we depend on it for everyone that commutes into work.	11	15	EDIP garage and Design Center permit parking

How do your employees primarily get to work?					What is the approximate average commute time, if known?	Approximately how many of your employees use the MBTA Silver line?	Is the Silver Line bus stop convenient to your business?	Do you provide shuttles for your employees?
Automobile	Carpool	Transit	Bicycle	Walk				
Automobile		Transit	Bicycle		varies greatly. Average 30 minutes	25	yes	no
Automobile		Transit			Unknown	Estimated over 50%	Yes but could be more so if extended to Fid Kennedy	No
Automobile	Carpool	Transit			1 hour to 1 hour 30	1	yes	the IDB does
Automobile		Transit			30-90 Minutes	4	Yes	The building provides a shuttle.
		Transit			30-60 minutes	3	Yes	No
Automobile		Transit	Bicycle		30 minutes	8	Yes	No
Automobile	Carpool	Transit	Bicycle	Walk	not known	Approximately 40	Yes	No
Automobile					1 hour	80	Yes	The building does.

What is the name of your business?	Please list a primary contact and address	How long has your company been in business?	How long has your company been located in the BMIP?	Please list the number of employees company wide.
Bridal Carriage Co., Inc.	Sally Cotten Sutherland - P. O. Box 1234 Hanover, MA 02339	14 years	14 years	6
Cahill display	Tom Lyons	67 years	31 years	10
Century Furniture	Andrea Gourousis BDC suite 447	65 years	8 years	650
Charles Spada LLC	charles Spada, 1 design center place, Boston 02210	35 years	1996 to present	4
charles spada, LLC	charles spada	34 years	1996	3
Commercial/Yankee Lobster Company	Joseph Zanti 617-946-3355, 300 Northern Avenue, Boston, Ma 02210	65 years	35 years	40
CureMeta LLC	27 Drydock Ave	4 years	3.5 years	12
Cytonome	Peter Longo, 27 Drydock Ave. 5th floor, Boston, MA 02210	10+	10 years	60
Cytonome/ST, LLC	Heather Kiessling, 27 Drydock Avenue	12 years	10 years	60
CytonomeST	27 Drydock Ave 5th floor	13 years	11 years	56
Daniels Print Communications	Ed MacLean, 12 Channel Street, Suite 502, Boston, MA 02210	47 years	9 years	33
Design Communications, Ltd.	Mike McCarthy, 25 Drydock Ave, 3rd Floor	31 years	31 years	200

Please list the number of employees working at BMIP.	Are there other facility locations? If so, please identify the location.	Approximately what percentage of your employees live in the City of Boston?	Service	Manufacturing	Other	What are the start and end times of most employees' work days? Please indicate days of the week, e.g. M-F or M-Sat	What are your reasons for location at the BMIP? Please list briefly.
6	No	3			Independent contractors	M-F 3:00p.m.-11:00p.m. Sat., Sun & holidays 11:00 a.m.-11:00 p.m.	Storage for carriages, staging area, and parking for business.
8	No	50	Service		Sales	M-F 8 to 4	Proximity to customers and transportation modes
two	North Carolina	50%	Service			M-F 9-5	The community of fabric and furniture showrooms
4	No	75%			Sales	m-f 9-5	boston design center
3	no	2	Service			M-F 9 - 5	designer showroom
40	No	30%	Service	Manufacturing	Warehousing	M-Sun 5am to 3pm and 12pm to 10pm	Our main business is live lobster and crabs and access to the ocean water is mandatory for the continued operation of the business
8	No	60%				M-F 830am - 5pm	Affordable rent, public transportation Silverline is fantastic
60	No	15%		Manufacturing	Professional	9-5, Monday thru Friday	We moved in 2005 and helped bring biotech into the seaport area
58	2 employees work from home in other states	5%	Service	Manufacturing	admin, sales, R&D	6 am to 7 pm, m-f	centrally located to most experienced, higher degree employees
56	No	maybe 25%	Service	Manufacturing	R&D, marketing, administrative	9-6; about 10 start around 6AM, 7PM is still quite active	originally costs, easy access for all employees, including commuters, access to parking
32	New York City Sales office	25%		Manufacturing		M-F 7am - 7pm, various shifts	Proximity to downtown Boston, manufacturing space
110	Orlando, New York	65-70%		Manufacturing		6am - 11pm (two shifts), M-F	Affordable rent for manufacturing.

What attributes of the BMIP are advantageous for your business?	Are there operational constraints that impact your business? Please describe.	Are there infrastructure constraints at the BMIP that impact your business? Please describe.	Are there facilities that are currently not available that would enhance expansion plans? If so, please list them.	Would your business benefit from freight rail access, passenger rail, or both? If so, why?	Would your business benefit from ship-to-shore access? If so, why?
We offer horse drawn carriage rides to many of the hotels in the area, weddings and tours around Boston.	We can't travel over major highways, or metal grating such as the grating on the old bridges, metal plates can be slippery. Temp. above 90 fh, or below 25 fh.	None	A carriage house to store carriages. Boston should have a transportation museum.	People could find us for a horse carriage ride into Boston	We have in the past given people to and from rides back and forth to the Black Falcon Terminal cruise ships.
Accessibility	Proposed moving of loading dock	Cruise ship restrictions imposed May to November	No	No	No
Wholesale community of showrooms. In the past the rent was more reasonable than downtown	Loading dock for large tractor trailers		More parking is needed, better public transit		No
boston design center	parking and traffic problems	parking			
design center	spring-summer- fall excessive cruise ship traffic and parking	more and better quality food venues, current options very limited	restaurant options	no	no
Ocean Water Access, access to main roadways, its Boston Location and sharing the BMIP with many other Seafood Companies	At times construction or proposed changes have and can limit access of tractor trailers to our facility which is our life blood because most of our supplies and product is delivered by tractor trailer, also a low limit of retail space and parking is a constraint	Not at this time, but there is talk about opening up the By-Pass Road to the general public and that would be a constraint		Passenger Rail	
Close to airport, Longwood and Cambridge	Traffic is busy every Friday during Cruise season	Very limited visitor parking, most parking occupied by construction workers	More lunch restaurants and supermarkets	Silverline works fantastic for us.	Not at all
great location (in the summer)	space requirements. We need more and space is limited (and costly)	yes, no available space		more passenger (or public space)	no
close to airport	difficult to get to with heavier traffic from courthouse, construction, convention center, cruises ships	old building, expensive to keep cool/heat, elevators are always breaking down,	more parking, better traffic control onto expressway	maybe passenger for commuting	no
Close to Boston, easy to ship large instruments, flexible space	rising costs, parking getting sparse and expensive, not enough close food	broadband was a problem, gotten better, lack of parking getting to be a problem, space constraints and cost of it may push us out	our current issue is lack of adjacent space and price	South station lose enough, airport close is a plus,	no
Location	1. No security in the building, doors never lock.	None	No	Yes, transportation for employees	No
Current rent structures, access to clients. MBTA proximity.	yes, deliveries, needs for additional space	yes, we need room to accept deliveries and load for departures	Yes, I see many spaces across the street from us that we would love to move into and restore as our space for the next 30 years.	no	no

Can the BMIP accommodate your business' future growth plans? a. if yes - no follow up question b. if no, why not?	Do you have business relationships with other tenants in the BMIP? Please explain.	What supporting services would you like to see at the BMIP?	What is the use category of your business?	Please list the size of your buildings in square feet.	Does your business require loading bays? If so, how many are there currently?
Please keep the antiquity of Boston by keeping the horse carriage industry alive. We could benefit with a horse carriage staging area to take passengers from the Black Falcon Terminal, to nearby hotels, restaurants, and the convention center. This is how everyone got around, well before the cars, buses and trucks.	We have with the hotels and restaurants in the area. They call us quite often for a pick up at their locations. We also have done services through the City of Boston. The BCEC has an event for Christmas in the City we have attended for the last 3 years, for the homeless families. The Yankee Lobster has also used our services for their patrons on several occasions, as well as the Nagle Fish Co., and Leagle Seafoods.	Please keep us informed of new developments in the area, so that we can avoid certain streets if they are blocking them we will take a different route. Please give the horses the right of way when they are approaching a construction site. Please inform all construction companies while working if they see a horse carriage coming to be curious and shut their machines down or stop the motion briefly until we pass.	Other		Trailer horses, loading and unloading, storage containers.
Yes	Yes hardware store		Distribution	17,000	Yes 6
Yes, as long as Jamestown does not make the rent increase cost prohibitive	Yes. The showrooms have much in common and share marketing dollars.	Furniture Repair and Restoration. Upholsterer	Other	7300 sq ft showroom	Yes. One
yes better cruise ship traffic control. Horrible during the summer months. More parking facilities	yes, with show room owners of the Boston design center	More parking, better traffic control	Other		
	yes, tenant of the boston design center		Retail	4000 sq ft show room	yes
Yes	Yes I have many suppliers and customers in the park	More parking	Integrated facility	10,000	2
Hopefully depends on rent increases	No	Better snow removal on roads, sidewalks and crosswalks	Research & Development	1500	No
	no	more food services, a gym, convenient store	Manufacturing	15000	yes, 2
no, rents are getting too high	no	more restaurants	Manufacturing	15000 square feet	yes
maybe, we will need adjacent spacesome where as we grow	no	health or sports facilities; more food at drydock end, parking, parking, parking!	Research & Development	we rent 18,000sq ft for R&D and light manufacturing	we use 1 of the buildings
Yes	Yes, we print for many clients in the BMIP		Manufacturing	N/A	Yes, 3
yes	We sometimes coordinate with other businesses in the BMIP. yes	more industrial companies.	Manufacturing	40k	yes, 1

Do you have exterior accessory storage?	What are your hours of operations and peak times?	How important is truck access for your business?	Does your business rely on the dedicated truck haul route?	If you rely on truck access, what size of trucks do you primarily use?	On an average day, how many trucks enter your property?	What are the peak times for freight/loading activity?
Yes	M-F 3:00p.m.-11:00p.m. Sat., Sun	Very important	Yes	F450 dually, hauling a 35' horse trailer	3 to 4	3 p.m., 11:00 p.m. m-f. 10 a.m., 11:00 p.m. s.sun. & holidays.
No	8 to 4	Very important	No	40'	5	Varies
No	M-F 9-5 peak 11-2	Very important	Yes	18 wheelers	8-12	9-3
	9-5	Very important	No	no		
Yes	9-5 M-F	Very important	Yes	commercial truckers	n/a	differ
Yes	5am to 10pm Peak is 11am to 8	Very important	Yes	tractor-trailer	40	6am to 12pm
No	830am-5pm	Somewhat important	No	Only Fedex and UPS	Not suer	
No	8-5	Very important	No	25 foot trailers		8-5
No	6 am to 7 pm	Very important	No	18 wheeler	1	late afternoon
No	5AM to 10PM; 10-6	Very important	No	we use air cushioned freight trucks; ge	one truck about 3x/month	NA
Yes	7am - 11pm M-F, plus some Satu	Very important	No	18 Wheel trucks & Box Trucks	3	Morning
No	6am 11pm. Peak 7:30-4:30	Very important	Yes	16-20 ft, tractor trailer	10	7:30-4:30

Does your business require water access?	Can you describe your peak shipping times?	Is your business energy intensive? If so, please describe.	Does your business generate its own energy?	Do you use the marine facilities? If yes, which ones? If no, why not?	Do you utilize Logan Airport for transportation of your products? If yes, is it primarily for exporting your product or importing inputs to production?
No			Yes, Horse transportation	Sometimes picking up and dropping off passengers for the Black Falcon Terminal	N/A
No	2 to 4	No	No	No not needed	Fed ex/ups air shipments in and out
No	9-3	no	no	no	no
		no	no	US customs incoming freight	yes, importing
No	irratic	irratic	no	no	yes, importing
Yes	6am to 2pm	Yes, we use a lot of energy cooling down ocean water to keep the lobsters and crabs alive	No	We use the ocean access	Yes, mostly for exporting
	N/A	Not really	No	No	No
Yes	8-5		no		no
No		no	no	no	no, the container is too large, it has to go to Newark/la quardia
No	no	we use lasers; have a lot of instrumentation;	no	no	no
No	All day	No	No	No	No
No	7:30-4:30	Electricity (saws, machines, computers, etc)	no	no	Yes, and they are a major client

What other regional facilities (e.g., airports, marine ports, railroads) do you use in delivering your final product or obtaining inputs for its production?	How many customers/visitors do you typically get per day?	Is parking a concern for your business? Why or why not?	How many dedicated parking spaces do you have?	How many parking spaces does your business require at peak?	Where do your employees park? (list all known locations)
N/A	currently 10- 100 passengers per day	No, but we have to have parking for the horse trailer with the storage container that holds our horse carriages for working. We can't leave the horses unattended and park somewhere else.	Three	Three	They commute by train, or carpool with us.
None	1	Yes customer and employee availability	5	5	Dedicated and garage
	10-15	Yes. During cruise days and other busy times the parking is insufficient	one	10-15	
	depends on the day, difficult to predict	Yes. Inadequate parking, traffic control, during summer months Black Hawk traffic	0	2	design center tennant parking and parking garage
ny	erratic, a few to none	yes, available parking is inconvenient for the interior design trade	0	2	parking garage
Airport and marine port	Wholesale facility 30 Restaurant 200	Yes, I cannot service the needs of my customers with my present allotment	11	20	Local parking
No	1	Yes visitor parking	1 and the rest in VPNE parking garage	2	VPNE parking garage drydock ave
roadways	1/wk	yes, no dedicated space (close to office) for visitors	6	8	street, garage
	1-2	yes	6 at the building, approx 40 in the local garage	same	same
none	4 to 10	yes, very hard for visitors to park in morning though early afternoon	6 employee spots in front of building; about 30 spaces in garage	everyday about 40; on an irregular basis up to 60	in parking garage on Drydock ave, in front of building, parking spaces, unknown
None	5 or more	Yes, lot in front of the building fills up fast. Price of parking higher than other metered parking in the city.	2	18	EDIC Garage, Street Parking
none	10	Yes, very much. Attracting employees.	10	35	25 Drydock, Garage on Drydock, south boston, local train stations (i.e. Braintree)

Automobile	Carpool	Transit	Bicycle	Walk	What is the approximate average commute time, if known?	Approximately how many of your employees use the MBTA Silver line?	Is the Silver Line bus stop convenient to your business?	Do you provide shuttles for your employees?
Automobile	Carpool	Transit			one hour	3	yes	Yes we drop them off ourselves sometimes at the Silver line or South Station.
Automobile					25 minutes	0	Yes	No
Automobile		Transit			1 hour	One	Yes	
Automobile		Transit			1.5 hours to 30 minutes	2	Yes	Design Center Management provides
Automobile		Transit			1.5 hours to 1/2 hour	1	yes	no,
Automobile	Carpool	Transit	Bicycle		30 minutes	25	yes	no
Automobile					30-45 min	20%	Yes	No
Automobile		Transit	Bicycle		40 minutes	20	yes	no
Automobile		Transit	Bicycle		1 hour 15 minutes	11	yes	no
Automobile		Transit	Bicycle	Walk	45 min	10-15	yes	no
Automobile		Transit				13	Yes	No
Automobile		Transit	Bicycle	Walk	45 min	70%	YES!	no

What is the name of your business?	Please list a primary contact and address	How long has your company been in business?	How long has your company been located in the BMIP?	Please list the number of employees company wide.
Deutsch Williams	Valerie Swett, Managing Principal, One Design Center Place Suite 600 02210	30 years	8 years	35
Drydock Cethner	Jeff Wallace jw@hstarm.com	14 years	14 years	550
F. J. O'Hara and Sons/Araho transfer	Charlie Di Pesa 7 Fid Kennedy Ave. Boston, Mass. 02210	86 years	18 years	50
Fort Point Cabinetmakers	25 Drydock Ave. 2nd	40 years	9 years	10
Ginkgo BioWorks	Barry Canton, 27 Drydock Ave, 8th Floor, Boston, MA 02210	6 years	5 years	25
invICRO	Kat Ramey; kramey@invicro.com; 27 Drydock Avenue, 7th Floor West, Boston MA 02210	8 years	1.5 years	55
Jamestown LP	Dana Griffin 21 Drydock Ave Floor 3 Boston, MA 617-737-1202	32 years	3 years	230
John J Cahill Displays, inc			33 years	10
John Nagle Co.	Michael Bates	128 YEARS	30 years	70
Magellan Distribution Corporation	12 Channel St, Ste 804	14 yrs	12 yrs	5

Please list the number of employees working at BMIP.	Are there other facility locations? If so, please identify the location.	Approximately what percentage of your employees live in the City of Boston?	Service	Manufacturing	Other	What are the start and end times of most employees' work days? Please indicate days of the week, e.g. M-F or M-Sat	What are your reasons for location at the BMIP? Please list briefly.
35	No	10%	Service			M-F 9-5	Easy access, pleasant environment (sun, light), rent price
550	No	This is reported from time to time	Service	Manufacturing		primarily routine business hours but Drydock Center does have 24/7 businesses	We developed Drydock Center into a R&D facility
42	Miami and Fort Myers Florida	15%	Service			M-F 7-4 Sat and Sun 6-12	Location to customers, airport and major highways
10	No	50%				We stagger -6am to midnight Mon-Sun	Low rent, collaborative work environment
25	No	15%	Service	Manufacturing		9-6 M-F	Proximity to Boston, Low rents, Ocean views
~50	Seattle, WA; London, UK	75%			Scientist	8:30AM - 6PM, M-F	Central location, T accessible, laboratory space available
30	global and domestic Bos, NYC, ATL, DC, San Fran	30%			Real Estate	M-S 6am - 7pm	Innovation & Design economy, premier property, location, view, transit
9	No	40 %				8 to 4 m-f	proximity to IHI trucking companies, UPS and Fed Ex locations and container facilities shipping and receiving companies
70	No	25	Service	Manufacturing		M-F 5:00AM-5:00PM S-S 7:00AM-12:00	Proximity to others in our industry
5	n/a	40%	Service	Manufacturing		M-F, 9am-5pm	Centralized location is advantageous for distribution business which is heavily reliant on timely receipt and shipment of products (via UPS/FedEx, etc.)

What attributes of the BMIP are advantageous for your business?	Are there operational constraints that impact your business? Please describe.	Are there infrastructure constraints at the BMIP that impact your business? Please describe.	Are there facilities that are currently not available that would enhance expansion plans? If so, please list them.	Would your business benefit from freight rail access, passenger rail, or both? If so, why?	Would your business benefit from ship-to-shore access? If so, why?
Easy access, pleasant environment, rent price	Public transportation for employees coming to North Station	Public Transportation to North Station could be easier; EDIC parking lot is at capacity, making guest parking a challenge.	Restaurants, stores where people could shop for routine household needs	Freight rail is not relevant. Passenger rail might be helpful.	No.
good transportation, affordable rents, Boston vs. suburbs, proximity to Logan, waterfront	Lack of parking	Water service breaks too often. Cruise terminal, in its season, is very disruptive to traffic and parking.	more parking	No, in fact it would be a major problem if the rail line were reactivated	no
It's business only	not really	not really	not really	possibly	Conley Terminal is close enough
Concrete building, large windows, mix of industrial and office	Parking is a major obstacle. The garage is near capacity and the EDIC is uncooperative.	Parking. Parking. Parking. Congestion during cruise days.	Parking - current garage over capacity. Too many loading spaces at building, not enough parking.	We need a solid connection with MBTA. Not just silver line.	No
Proximity to airport, 90, 93, robust building infrastructure	Parking is very limited, public transport commutes are slow.	Our building has had many power failures in recent years.	Parking, more shuttle buses to South Station would help.	Passenger rail would help commute for employees who live further away.	No
T accessible, central location, laboratory space available		Lack of public transportation from the north, increasing traffic, increasing burden on parking resources	Supporting services - bank, post office, dry cleaning, more restaurants, etc	Passenger rail	
Innovators and makers already established in the area, location, transit, building attributes	parking availability, use restrictions	limited public transit and parking	water ferry service, increased T frequency, more parking	Passenger rail would provide quick, reliable transit	yes for commuting to and fro North Station
location, safety, curb appeal	not currently	no	no	no	slightly
Proximity to airport, harbor and major highways	NO	NO	NO	NO	PERHAPS-WE WOULD WELCOME THE OPPORTUNITY TO OFFLOAD FISHING BOATS AT A NEW DOCK NEXT TO THE VENT BUILDING.
Loading docks, UPS/FedEx proximity, local amenities (restaurants, coffee shops), public transit, access, access to potential hires	Ability to expand or contract space utilization based on economic climate and business growth or contraction prospects may be limited	Ability to expand or contract space utilization based on economic climate and business growth or contraction prospects may be limited	Unfortunately, expansion is not at the forefront of our thinking at the moment. Rather, our business is struggling based on industry factors and outside forces beyond our control.	Possibly passenger rail, but existing public trans is quite good already.	n/a

Can the BMP accommodate your business' future growth plans? a. if yes – no follow up question b. if no, why not?	Do you have business relationships with other tenants in the BMIP? Please explain.	What supporting services would you like to see at the BMIP?	What is the use category of your business?	Please list the size of your buildings in square feet.	Does your business require loading bays? If so, how many are there currently?
	Very little.	More retail and restaurant; more parking.	Office	18,000	no
yes	yes, one of the founders of the BMIP Civic Association and still an active member.	more food services, more weekend activities, better parking	Integrated facility	280,000	yes
no	yes. seafood customers, hardware, cafes	???	Marine Industrial	35,000	25
Yes	Yes. Some of our collaborators, suppliers and clients are here	Sidewalks, treescapes, more green in the support areas. Would like to see more support for artisans, like the Makers Guild is now.	Integrated facility	5000	We need occasional loading dock. one is fine.
Yes	No	More cafe's	Research & Development	18000SF	Yes, 4
Unknown	Not of significance	Food service, bank, dry cleaning, post office, etc	Research & Development	12,000	No
yes with proper planning, traffic control and parking	No. We are cultivating good working relationships but no formal business established	More parking, passenger rail access, increased silver line frequency, dedicated buses to N. Station	Office	1.4 million square feet	yes. 11 loading docks onsite.
yes	hardware store		Distribution	17000	yes definitely
YES	YES- OTHER SEAFOOD COMPANIES AND REPAIR AND MAINTENANCE PROVIDERS		Marine Industrial	55,000	YES WE OPERATE ON OPEN DOCKS AT PRESENT
	Limited, but yes. Door is always open and if the fit is there, we buy and/or sell with our fellow tenants. It makes good business sense to do so. We just haven't had that many opportunities present given our line of work.	Recycling	Distribution	12,000	Yes, about twice per month.

Do you have exterior accessory storage?	What are your hours of operations and peak times?	How important is truck access for your business?	Does your business rely on the dedicated truck haul route?	If you rely on truck access, what size of trucks do you primarily use?	On an average day, how many trucks enter your property?	What are the peak times for freight/loading activity?
No	9-5	Not relevant	No	n/a	0	n/a
Yes	24/365 with peak hours business	Somewhat important	No	NA	12-15 mid size delivery type vehicles - UPS, etc.	business hours
No	4am to 2am	Very important	Yes	24 footers and tractor trailers	200	2pm to 9pm
No	7am to 7pm seven days	Somewhat important	No	20 to 40 foot	One truck every week	NA
No	9-7 M-F	Somewhat important	No			
No	9AM - 5PM, M-F	Somewhat important	No			
No	24 hour access with peak from 7a	Somewhat important	No	trailers, box trucks, vans	approximately 150	6am-9am but allowed at all times
No	7 to 5 and 2 to 4	Very important	No	40 ft	4	varies
Yes	M-F 5:00-5:00, PEAK 6:00-10:00	Very important	Yes	STRAIGHT TRUCKS 10-24' AND TRAILERS	50-150	5:00-4:00PM
No	8:30am-6pm, peak times are 1pm	Very important	No	40-ft trucks for pallet drop-off or pick-up	If you count UPS/FedEx, 3-4 per day, on average	Noon-2pm, 5pm-6:30pm

Does your business require water access?	Can you describe your peak shipping times?	Is your business energy intensive? If so, please describe.	Does your business generate its own energy?	Do you use the marine facilities? If yes, which ones? If no, why not?	Do you utilize Logan Airport for transportation of your products? If yes, is it primarily for exporting your product or importing inputs to production?
No	n/a	no	no	No. Would use water shuttle if available. Would enhance some employees' commute.	no
No	NA	Moderately	No	Our tenants use the waterfront park a lot. Very nice since its recent improvements. Good job EDIC.	NA
No	2pm to 9pm	trucks want to pick up all the same time.	no	Black falcon, Conley terminal	imports
No	no	no	no	no	no
No		Yes, Lab HVAC	No	No	No, but customers value that we are near the airport when visiting.
No		Yes - laboratory use	No	No	No
No	early morning is higher activity	No.	Partially via solar array	No. There is no direct access to water	yes for both.
No	sept to november	no	no	no	air shipments via fed ex/ups
No	SHIPPING IS ONGOING, JNC TRUCKS DELIVERING, CUSTOMER TRUCKS AND 3RD PARTY TRUCKS PICKING UP. RECEIVING CAN START AT 4:00 AND EXTEND TO NOON	YES, 30,000 SF UNDER REFRIGERATION	NOT AT THE PRESENT TIME	NO. VERY FEW FISHING BOATS LAND AT BOSTON, TOO EXPENSIVE.	YES, 85% IMPORTS AND 15% DOMESTIC SHIPMENTS TO CUSTOMERS
No	1pm-5:30pm	No	No	Yes, restaurants/coffee shops primarily.	Yes, extensively, but through service providers like UPS and FedEx.

What other regional facilities (e.g., airports, marine ports, railroads) do you use in delivering your final product or obtaining inputs for its production?	How many customers/visitors do you typically get per day?	Is parking a concern for your business? Why or why not?	How many dedicated parking spaces do you have?	How many parking spaces does your business require at peak?	Where do your employees park? (list all known locations)
none	two	yes. For visitors and for employees.	none	20-25	EDIC lot
NA	30-50	Absolutely, our biggest issue.	approx. 90 and could use 3x that	200	our lot and in the City garage
Intersates	200	yes, to grow we need more parking for employees. parking garage is always full.	45	45	onsite
none. All truck or parcel carrier	1	Yes. It is horrific now, and will only get worse.	1, but only thru march 2016.	4	Streets of south Boston, BMIP garage when it is not full. parking meters
	<5	Yes, parking is expensive for employees and visitor parking is in short supply. This is the worst aspect of the BMIP from our companies point of view.	6	12	27 Drydock Ave, EDIC log
	10 or less	Yes. Our employees often need to park, as well as visitors and the meters near our building are often full.	8	15	Parking garage at 12 Drydock, metered spots, dedicated spots
Highway system	approx. 500	yes. T transit is not adequate and many tenants drive and park	291	approx 500 via surface lot, EDIC garage at current occupancy	IDB lots and EDIC Garage
	1	yes for customer access	4	1	garage
	70-100	YES WE HAVE ADDED EMPLOYEES. OUR CUSTOMERS AND SUPPLIERS COME AND GO TO THE TRUCK DOCKS SO THOSE SPACES ARE CONSTANTLY TURNING OVER	95	95	ON SITE
n/a	1-2 per week	Yes	2	3	Garage across from the Design Center, some short term parking in 12 Channel paid lots

Raymond L. Flynn Marine Park Master Plan Update

Automobile	Carpool	Transit	Bicycle	Walk	What is the approximate average commute time, if known?	Approximately how many of your employees use the MBTA Silver line?	Is the Silver Line bus stop convenient to your business?	Do you provide shuttles for your employees?
Automobile	Carpool	Transit			1 hour	20	yes	no, but our landlord does
Automobile		Transit	Bicycle	Walk	don't know, shuttle direct to south station and north station would be v. helpful.	Don't know for certain but we estimate 50% of employees at Drydock Center take the Silver Line to work	yes	no
Automobile		Transit			20 minutes	10	Yes	we will pickup in inclement weather.
Automobile	Carpool	Transit	Bicycle		45 minutes to 1 hour	1 exclusively, 3 occasionally	Yes	No, but the IDB building does
Automobile		Transit	Bicycle		45 min	18	Yes	No.
		Transit			45 minutes	75%	Yes	No
		Transit			45 mins	65%	yes	yes
Automobile					20 minutes	1	yes	no
Automobile	Carpool	Transit	Bicycle		30 MINUTES TO 1.5 HOURS	7	YES	NO
Automobile		Transit		Walk	45	2	Yes	No

Mass. Bay Brewing Company, Inc. d/b/a Harpoon Brewery	Warren Dibble, 306 Northern Ave, Boston, MA 02210	20 years	19 years	295
What is the name of your business?	Please list a primary contact and address	How long has your company been in business?	How long has your company been located in the BMIP?	Please list the number of employees company wide.
MassChallenge	Scott Bailey / 21 Drydock Ave, Boston, MA, 02210 - 6th Floor	5 years	2 years	25 Full time + 300 people that represent startup companies working in the space
Neoscape, Inc.	Robert MacLeod, President	20 years	2 years	75
Next Step Living Inc.	Daniel Lissner, 21 Drydock Avenue, 2nd Floor, Boston MA 02210	7 years	5 years	850
Northeast Ship repair	Edward Snyder 32 Dry Dock Ave Boston Ma 02210	20 years	20 years	150
ORIG3N	Kate Blanchard, COO ORIG3N, 27 Drydock Ave., 6th Floor Boston, MA 02210	1 year	1 year	12

175	Windsor, VT ; Woburn, MA	Approximately what percentage of your employees live in the City of Boston?	Service	Manufacturing	Retail	M-F: Manufacturing 3 shifts, packaging 2 shifts 6am-2pm & 11am-7pm; Office/Staff M-F 8:30-6pm; Retail 10am-7pm/11pm; T-F distribution 6am-4pm	proximity to Boston; good manufacturing & distribution center
	Are there other facility locations? If so, please identify the location.		Service	Manufacturing	Other	What are the start and end times of most employees' work days? Please indicate days of the week, e.g. M-F or M-Sat	What are your reasons for location at the BMIP? Please list briefly.
25 FT + 300 people + events	London, Tel Aviv, and there are several other offices we are considering within Boston.	50%	Service	Manufacturing		24/7	MassChallenge selected this site because of it's proximity to the Innovation District. This was also a unique building with a lot of potential. A major priority in 2015 was the launch of a rapid prototyping facility and we were able to use it because of the zoning.
55	NYC	33%	Service			8:30-5:30 M-F plus many late nights and weekends as required by project.	Great building (23 Drydock). High ceilings accommodate green screen stage, good light, easy access, affordable rent
325	Dedham, MA; Natick, MA; New Haven, CT; Purchase, NY	30%	Service			8am to 8pm M-Sat	Proximity to Boston, particularly public transportation; Innovation District
150	No	75%	Service			Monday thru Sunday 700AM-330PM Plus all hours of night as necessary.	Ship Yard is located on the waterfront.
10	No	80%		Manufacturing	Research	Various. 1/3 7:30AM-3:30PM, 1/3 9:30-6:00, 1/3 Weekends only	We are a biotech company. Lab space is hard to come by for early stage companies like ours. Cambridge was incredibly expensive (\$65/sq ft) and this was a really great option for us. I wish there was more Lab/office space in this area of Boston.

see a)	traffic, commuting access, and parking constraints	see c)	we had looked for nearby warehouse space 2 years ago. space was limited and expensive	freight rail access could provide a significant benefit to bringing brewing grain in at a much more efficient manner than frequent over the road bulk trucks. Passenger rail linking the BMIP to South Station and Back Bay would be a large boon to employee and visitor access	not at this time.
What attributes of the BMIP are advantageous for your business?	Are there operational constraints that impact your business? Please describe.	Are there infrastructure constraints at the BMIP that impact your business? Please describe.	Are there facilities that are currently not available that would enhance expansion plans? If so, please list them.	Would your business benefit from freight rail access, passenger rail, or both? If so, why?	Would your business benefit from ship-to-shore access? If so, why?
Close to the airport, proximity to the innovation district, tenant mix, proximity to a brewery.	The cruise ships make it very difficult to park. Parking in general is a massive issue. There aren't enough retail/restaurants in the area to support the employees and startups we work with.	Parking is the biggest issue.	Restaurants and retail would be great	We would definitely benefit from passenger rail access.	NA
The building we are in is great for a creative company. Industrial, high ceilings, good light, flexible floorplates.	Cruise ship related traffic really impact parking and access for businesses and their employees. Same goes for when BMIP serves as overflow parking for conventions. Despite best efforts to manage traffic it can severely affect commute times and impact pedestrian, biking safety.	Parking, Transit, Hubway. More of everything would be great. Especially considering the constraints during cruise season and BCCE overflow.	I think that more restaurants that are open past 7:00pm would be great. We work long hours and have very limited options besides leaving the park or ordering takeout. I think improving nighttime activity would also promote safety for my employees with limited impact on the operation of many existing businesses.	Passenger rail would be great for our business as about 33% take some kind of commuter rail, subway, bus or combination thereof.	Not applicable
Sufficient space for our operations; accessible by T, bus, bike, shuttle bus, and walking	Building management's efforts to "upscale" the building have left us without much of a voice in the midst of extensive construction; parking availability and parking rates are challenging	Parking and parking rates, especially at 12 Drydock Garage, where VPNE's 6/1 shift in policy will now prevent us from obtaining parking passes as a pre-tax benefit for our employees	Additional food trucks would be beneficial	Rail access to Back Bay would be a significant improvement; access by shuttle bus to N. Station and S. Station is important and is provided by landlord	Yes, especially to Charlestown
Waterfront property for Ship repair.	Large Population and build up of area due to ship yard operations. Traffic issues.	No pier space available within facility.	Pier space	NA	Yes-if more waterfront access is available, it would enable more business to be formed and having more space availability is key.
Public transportation options, near the airport, nearby services.	Parking is a problem. It will be a huge problem as the rest of Drydock increases their occupancy rate.	None that I can think of	More food options - though the food trucks are a great addition.	Yes. If it were possible, direct rail to access the redline (or some other MBTA rail) would be great. No need for freight rail for us.	No. Though a few people would appreciate cheaper water ferry services to other parts of Boston and beyond.

Currently, we could add one more phase of production expansion (+30-40%). After that, we would run out of space in our existing lease.	yes, we have several retail beer customers in the BMIP.	Another municipal parking garage, more Silver Line service	Manufacturing	47,515	7
Can the BMIP accommodate your business' future growth plans? a. if yes - no follow up question b. if no, why not?	Do you have business relationships with other tenants in the BMIP? Please explain.	What supporting services would you like to see at the BMIP?	What is the use category of your business?	Please list the size of your buildings in square feet.	Does your business require loading bays? If so, how many are there currently?
No, there is overwhelming interest in attracting a unique set of companies to the area to grow their businesses. It's possible to build it over time, but a firm commitment from the city is important.	Yes, we work with many as mentors, customers, and partners to help accelerate the startups.	Restaurant/Retail	Manufacturing	~30,000 Sq ft.	Yes, but we only need 1
Yes	Yes - we work for several other tenants and collaborate with others.	More food service - daytime and nighttime. Food trucks, restaurants, a bar or two. Dry cleaner, coffee shop etc.	Office	Our space is 13,000sf within 23 Drydock.	Not applicable
Yes, but the efforts to increase rents in the building have made the landlord unwilling to discuss future plans with us beyond our 2017 lease termination	No	Food trucks, bike transportation support, additional public transit	Other	25,500 (for our office)	Yes - 2 (for our use)
Right now we have been told the City is not fixing the existing pier structures due to funding. This has been an issue for 20 years.	No	More assistance with services, namely electric structure would be helpful. There is too much red tape to go through any process which makes projects very hard to accomplish.	Marine Industrial	30,000 sq ft of presently unusable space.	No
Yes	No but we could in the future	Consumer Retail - a real restaurant (with wait staff, bar) shops like pharmacy, bank, a commercial shipper (FedEx, UPS - beyond drop boxes), shuttle services to other parts of the city (North Station).	Research & Development	3400 (our space at 27 DryDock)	No but it is nice to have the freight elevator.

Yes	7 days a week; Manufacturing 24/7	Very important	Yes	straight trucks, vans, tractor trailers	25-30	7 am-7pm
Do you have exterior accessory storage?	What are your hours of operations and peak times?	How important is truck access for your business?	Does your business rely on the dedicated truck haul route?	If you rely on truck access, what size of trucks do you primarily use?	On an average day, how many trucks enter your property?	What are the peak times for freight/loading activity?
No	9:30-11am / 3-5pm -- 24/7 access	Not relevant	No	NA	There are a lot. We want to support industry, but they can get in the way.	N/A
No	standard hours are 8:30-5:30 M-F	Not relevant	No			
No	8am-8pm M-Sat	Very important	No	Box trucks and pickup trucks	15	Throughout the day
Yes	24 Hour operation. No specific peak times	Somewhat important	No	NA	10	7:00AM-3:30PM
No	M-F 9-6 Peak Time, Saturday & Sunday	Not relevant	No			

most of our final product is shipped over the road in trucks. Raw material, packaging, and misc inputs are delivered to us in straight and tractor trucks.	400		Parking is an ongoing and growing concern. The parking ban has limited our on site parking. Park development has filled the EDIC municipal garage leaving visitors no easy parking alternative.	75		125	EDIC garage, meter street parking.
What other regional facilities (e.g., airports, marine ports, railroads) do you use in delivering your final product or obtaining inputs for its production?		How many customers/visitors do you typically get per day?	Is parking a concern for your business? Why or why not?	How many dedicated parking spaces do you have?	How many parking spaces does your business require at peak?	Where do your employees park? (list all known locations)	
na	2-500		Yes, many people come to meet companies, take meetings, and attend educational workshops. Without easy access to parking people won't come down here.	None	50-100	The city owned garage.	
None	We have 4-5 visitors per day		Yes - very limited number of spaces and price is escalating quickly.	3	5-6	EDIC Parking garage and meters.	
Fleet of trucks (40-60) is based at our Dedham warehouse -- used to be at Drydock Ave but relocated at the request of landlord due to high traffic volume	50		Yes, we have 300+ field-based employees who come to the office for meetings and to pick up supplies, parking is difficult in the area with events at the convention center	7	100	12 Drydock Ave garage	
NA	0		Yes-Limited amount of space for employees and sub contractors			In our facility	
We have most of our production material delivered by FedEx, USPS and UPS. We then use Airways for air shipments.	2-4/week		Yes. As we grow, we'll always have a combination of people driving to work and taking public transportation. Parking is severely limited in this area though there is a ton of land space that is open when we look around. As the area attracts more businesses, this will just get worse. We use the parking garage on Drydock Avenue currently for our employees that have vehicles. It is not ideal.	0	5	DryDock garage, metered spaces	

Automobile		Transit					50	yes	no	
Automobile	Carpool	Transit	Bicycle	Walk	What is the approximate average commute time, if known?		Approximately how many of your employees use the MBTA Silver line?	Is the Silver Line bus stop convenient to your business?	Do you provide shuttles for your employees?	
Automobile		Transit	Bicycle		30min - 1.5 Hrs		70%	Yes and no. It picks up right in front, but it isn't consistent and can be way too full at peak times.	The building provides a shuttle to south station, which was a huge improvement.	
Automobile		Transit	Bicycle	Walk	45-60 minutes		50%	Yes	Our landlord - Jamestown - provides shuttles which are helpful.	
Automobile		Transit	Bicycle	Walk	30-60 minutes		100	Yes	Landlord provides shuttle to N Station and S Station, which is very helpful	
Automobile	Carpool	Transit			60 minutes		50%	Yes	No	
Automobile		Transit			Depends. 30-50 minutes is the range.		6-8 depending on the day	yes	No	

What is the name of your business?	Please list a primary contact and address	How long has your company been in business?	How long has your company been located in the BMIP?	Please list the number of employees company wide.
Pangea Shellfish Company	Ben Lloyd, 314 Northern Ave, Boston, MA 02210	15 years	13 years	20
Steven King Decorative Carpets	Steven King One Design Center Place Suite 405	30 years	30 years	14
The Martin Group	Garry Martin garrym@martingroupinc.com 617 370-8401	26 years	26 years	16
The Robert Allen Group	Rachel Koenecke, 1 Design Center Place Suite #200, Boston MA 02210	76 years	21 years	425
Vandegrift Forwarding Co., Inc.	Ctc: Christine Sliwinski, Address: 9 Drydock Avenue, Ste 2010 So Boston Ma 02210	21 years	6 years	100+
Waterworks	Sue Corr, 1 Design Center Place, Suite 147	31 years	20 years	200+
Webster & Company	Bill Burg 1 Design Center Place, Suite 242, Boston, MA 02210	23 years	23 years	25

Please list the number of employees working at BMIP.	Are there other facility locations? If so, please identify the location.	Approximately what percentage of your employees live in the City of Boston?	Service	Manufacturing	Other	What are the start and end times of most employees' work days? Please indicate days of the week, e.g. M-F or M-Sat	What are your reasons for location at the BMIP? Please list briefly.
15	Duxbury, MA	50%		Manufacturing		6AM to 5PM, M-F, Saturday 6AM to 12pm	Proximity to other seafood companies
14	No	50%	Service			9-5 M-F	Resource to the design trade
13	No	50%	Service			8:30 - 5:00pm M - F	We have to be here one building were all designers buy wholesale.
5	Corporate offices located in Foxboro, MA and New York, office and warehouse in Gaffney South Carolina and multiple showroom locations across the US, Canada, and Europe.	40%	Service			1 employee 7:30AM - 4:00PM M-F, all others 9AM - 5PM M-F	Important to be in the Boston Design Center - a community of similar businesses that share a customer base and in a wholesale environment with affordable rents and overhead expenses.
6	Yes we have other locations in: Clark NJ (corporate HQ's), JFK, Baltimore MD, Norfolk VA, Ft Lauderdale FL, Columbus OH, Chicago IL, Pembina ND, San Francisco, Ca, and LALGB California, Toronto, Canada, and Hong Kong	30%	Service			M-F 8:30am-5:30pm, Sat & Sunday 10:00am - 5:00pm	We are close proximity to US Customs, the airport, and several of our perishable Seafood clients.
6	There are many nationwide	20%			Sales	M-F 8:30 - 5:30	Boston Design Center location
25	No	50%	Service			9-5 M-F	Because this is where the Boston Design Center is.

What attributes of the BMIP are advantageous for your business?	Are there operational constraints that impact your business? Please describe.	Are there infrastructure constraints at the BMIP that impact your business? Please describe.	Are there facilities that are currently not available that would enhance expansion plans? If so, please list them.	Would your business benefit from freight rail access, passenger rail, or both? If so, why?	Would your business benefit from ship-to-shore access? If so, why?
proximity to seafood and transportation needs	Lack of affordable and available space for expansion	na	The Army building behind Stavris Seafoods	no	no
That it is a wholesale building	Cruise ships are bearable but it will horrible with the new plans to relocate the loading dock to the Black falcon Pier side of the building	no	Perhaps renovating the building across the street with lower rents	no	no
That all the wholesale design showrooms are under one roof.	Parking is a problem, and rents are becoming to high for wholesalers.	lack of parking	no	passenger rail would be great, the easier the access the better	no
Easy to get to by car for our customers, affordable rents in a building with similar businesses and ample square footage to support our business	Hotel rates are very high since the convention center opened. We need better options for business travelers.	Not enough parking, public transportation is at capacity during rush hour, can be unreliable, and has led to long commute times for employees. Especially for those going to North Station.	More restaurant options would keep customers here longer. Lack of meeting rooms and event spaces available to tenants. Increased parking or public transportation services in the park would aid in employee recruitment.	Passenger rail - better commutes for employees.	No
	NO.	No	No	No	No
All like businesses in one place	no	no	more parking is needed	Passenger rail	no
Located in the city of Boston	Cost of leasing is getting very expensive	The Parking can be a hassle but the offering of luxury eating establishments in our district is no existant.	Restaurants and grocery stores	Passenger rail....not too much freight rail	No

Can the BMP accommodate your business' future growth plans? a. if yes - no follow up question b. if no, why not?	Do you have business relationships with other tenants in the BMIP? Please explain.	What supporting services would you like to see at the BMIP?	What is the use category of your business?	Please list the size of your buildings in square feet.	Does your business require loading bays? If so, how many are there currently?
I am not sure. We are growing at 25-30% per year, but the cost of space, including land-lease options is very expensive.	Yes, many in the seafood business	security	Marine Industrial	7500	Yes, 4
No. The rent here is increasing with the new owners and will impact all the businesses here	just in the Design Center	restaurants	Retail	500,000 sf BDC 9500sf my showroom	yes. One and they pain on moving it and we won't be able to use it when the cruise ships are in which is very often from May-October
no, I just downsized.	yes, other design center people	more places to eat	Other	just went from 19,000 to 9,000	one or two for the building is fine
Yes	Yes, Robert Allen is are a member of the Boston Design Center Wholesale Tenants' Association.	More lunch time food options either in the IDB building or within walking distance.	Other	showroom square footage 8803	Yes, we use the Boston Design Center loading bays
yes	Yes - We have many business relationships with many of the perishable seafood businesses, Boston Frt Terminal, and with US Customs.	n/a	Office		no
yes	yes - I am on the tenants board for the BDC	more parking	Office	2000	no
Yes	We make up a portion of the boston design center. As a world class city we must have a design center.	Restuarants and Grocery stores	Other	size is 21,000 sf	yes...1

Do you have exterior accessory storage?	What are your hours of operations and peak times?	How important is truck access for your business?	Does your business rely on the dedicated truck haul route?	If you rely on truck access, what size of trucks do you primarily use?	On an average day, how many trucks enter your property?	What are the peak times for freight/loading activity?
No	6am to 5pm	Very important	Yes	small box trucks to full length tractor trailer	100	6am to 5pm
No	9-5	Very important	Yes	tractor trailer, UPS FED EXP	?	all day
Yes	8-5 m-f	Very important	No	tractor trailers	2-4 a month	8-5 m-f
No	M-F 9AM - 5PM peak times are 10-11am	Very important	No	Box trucks for furniture delivery. Occasional	unknown	mornings
No	8:30am-5:00pm	Not relevant	No	n/a	n/a	n/a
No	8:30 - 5:30	Very important	No	box trucks	less than 1	middle of the day
	9-5 M-F	Very important	No		For us about 2 per day	9-11

Does your business require water access?	Can you describe your peak shipping times?	Is your business energy intensive? If so, please describe.	Does your business generate its own energy?	Do you use the marine facilities? If yes, which ones? If no, why not?	Do you utilize Logan Airport for transportation of your products? If yes, is it primarily for exporting your product or importing inputs to production?
Yes	6AM to 5pm	medium	no	no	yes, daily. No our primary means. trucks are our primary means of transporting product
No	all day	no	no	no	no
No		no	no	no	no
No	none, our product is shipped from an outside warehouse.	Yes, We use a lot of flood lights and switched to LED's 4 years ago.	no	no	no
No	n/a	n/a	No	Conley Terminal	We deal with both US Customs & the Airlines clearing goods for importers as they enter into the US
No					
No	dont have any	no	no	no	yes

What other regional facilities (e.g., airports, marine ports, railroads) do you use in delivering your final product or obtaining inputs for its production?	How many customers/visitors do you typically get per day?	Is parking a concern for your business? Why or why not?	How many dedicated parking spaces do you have?	How many parking spaces does your business require at peak?	Where do your employees park? (list all known locations)
some port - ships	100	Yes. We are growing and parking at the New Boston Seafood Center is limited.	12	12	New Boston Seafood Center
just truck	varies	we have parking provided at a cost.	2	8	garage
we do not	50-100 per day	yes, because there is not enough	3	our clients need enough places to park to do business with us	some take public transportation, others park in the parking garage
product is delivered by L TL carriers or UPS.	20	Yes - nearly all of our customers drive to the design center. 3 employees do as well	3	unknown - we use a shared parking lot for customers	in the BDC tenant lot located on the drydock and black falcon sides of the building.
Conley Terminal, Logan, ICI Rail facilities in Worcester, Ma	1-2 monthly	Yes - We have on site parking for employees	6	6	on site at 5-11 Drydock Avenue
	30	yes	none	6	EDIC garage
	50	Yes	20	70	garage on dry dock ave

Automobile	Carpool	Transit	Bicycle	Walk	What is the approximate average commute time, if known?	Approximately how many of your employees use the MBTA Silver line?	Is the Silver Line bus stop convenient to your business?	Do you provide shuttles for your employees?
Automobile					30 min	2	yes	no
Automobile		Transit			30 min	6	yes	no
Automobile					1 hour	8-10	yes	no but the building does
Automobile		Transit		Walk	1 hour 20 minutes	2	No, we need a stop at the Boston Design Center	BDC management does
Automobile		Transit			30-60 minutes for employees within Boston area, and 1-2 hours for employees commuting from North Shore and/or NH.	1	Yes	No
Automobile					one hour	1		yes
		Transit			1 hour	12	yes	yes



**boston planning &
development agency**



Raymond L. Flynn Marine Park

Appendix 3: Space Inventory



City of Boston



Client

City of Boston
Economic Development and Industrial Corporation d/b/a
Boston Planning and Development Agency

Consultants

Utile
Nelson Nygaard
Durand & Anastas
Ninigret Partners
HDR
Byrne & McKinney
Noble, Wickersham & Heart
Stantec

February 2022

Table of Contents

1. Space Inventory 328

Space Inventory: Existing

2022 Table 7

Marine Industrial Park Master Plan: Future Buildout Land Use Matrix

Parcel	Address	Parcel Area	Building Area		Total Land Use		
			Exis Bldg Footprint	Add Bldg Footprint	Marine Industrial	General Industrial	Comm.
DPA							
B	5 Drydock Ave.	95,824	70,000	0	82,409	0	13,415
C-1	1 Terminal St.	69,249	0	0	69,249	0	0
C-2	5 Terminal St.	41,901	0	0	41,901	0	0
D	1 Harbor St.	205,519	137,650	0	152,084	51,380	2,055
F	1 Design Center	164,007	83,422	0	0	123,005	41,002
F-1	Design Center Parking	50,469	0	37,159	9,290	41,179	0
G / H	339 Northern Ave/22 Drydock	79,818	27,005	27,277	0	79,818	0
I	21-25 Drydock Ave.	225,374	122,520	0	22,537	146,493	56,344
J	27 Drydock Ave.	81,043	40,585	0	8,104	72,939	0
K	36 Drydock Ave.	76,820	7,454	0	76,820	0	0
L	Drydock #3	468,373	8,654	67,346	401,287	67,086	0
L-1	24-26 Drydock Ave.	32,324	14,544	15,456	3,879	28,445	0
L-2	7 Tide St.	58,400	18,000	22,757	0	58,400	0
M	3 Dolphin Way	134,595	57,221	0	134,595	0	0
M-1	Massport Marine Term.	1,456,089	92,487	247,512	1,456,089	0	0
M-2	Fid Kennedv Ave.	91,957	25,935	0	91,957	0	0
N	25 Fid Kennedy Ave.	141,425	85,239	0	0	141,425	0
O / P	19 Fid Kennedy/3 Anchor Way	115,023	46,324	10,350	0	115,023	0
R	6 Tide St.	179,791	0	86,000	0	174,783	5,008
S-1	306 Northern Ave. (Nagle)	145,973	46,789	0	145,973	0	0
S-2 / S-3	306 Northern Ave. (Harpoon)	113,653	46,789	21,500	0	88,703	24,950
V	Drydock #4	252,004	0	0	252,004	0	0
V-1	302 Northern Ave.	86,716	0	0	86,716	0	0
W / W-1	290 Northern Ave.	132,422	52,960	0	132,422	0	0
X	310-314 Northern Ave.	183,105	64,000	61,319	0	183,105	0
Z	34 Drydock Ave. (Pier 10)	28,800	0	0	28,800	0	0
<i>Subtotal</i>		4,710,674	1,047,578	596,676	3,196,116	1,371,785	142,774
<i>%</i>		92.3%	22.2%	12.7%	67.8%	29.1%	3.0%
Non-DPA							
A / A1	1 Drydock Ave.	50,933	0	38,048	0	0	50,933
Q	12 Channel Sl.	69,182	35,642	0	0	69,182	0
Q-1	4 Drydock Ave. / Channel St	36,799	25,909	0	0	0	36,799
T / T-1	2 Harbor St/6 Harbor St	189,987	78,144	28,976	0	189,987	0
U	7 Channel St.	45,310	20,000	17,861	0	45,310	0
<i>Subtotal</i>		392,211	159,695	84,885	0	304,479	87,732
<i>%</i>		7.7%	40.7%	21.6%	0.0%	77.6%	22.4%
Total		5,102,885	1,207,273	681,561	3,196,116	1,676,264	230,506

Notes:

1. Information source is the BPDA.
2. Common facilities not included (G-2 Bell Atlantic Switch Station, Y Parking Garage)
3. See Table 5 for Existing Land Use Matrix.
4. Leader Bank Pavilion is a temporary facility.
5. RLFMP parcels not within the DPA are not subject to this License.

Building Footprint Use				Area Outside Bldg Footprint			
Building Footprint	Marine Industrial	General Industrial	Comm	Area Outside Bldg Footprint	Marine Industrial	General Industrial	Comm.
70,000	60,200	0	9,800	25,824	22,209	0	3,615
0	0	0	0	69,249	69,249	0	0
0	0	0	0	41,901	41,901	0	0
137,650	101,861	34,413	1,377	67,869	50,223	16,967	679
83,422	0	62,567	20,856	80,585	0	60,439	20,146
37,159	6,840	30,319	0	13,310	2,450	10,860	0
54,282	0	54,282	0	25,536	0	25,536	0
122,520	12,252	79,638	30,630	102,854	10,285	66,855	25,714
40,585	4,059	36,527	0	40,458	4,046	36,412	0
7,454	7,454	0	0	69,366	69,366	0	0
76,000	8,914	67,086	0	392,373	392,373	0	0
30,000	3,600	26,400	0	2,324	279	2,045	0
40,757	0	40,757	0	17,643	0	17,643	0
57,221	57,221	0	0	77,374	77,374	0	0
339,999	339,999	0	0	1,116,090	1,116,090	0	0
25,935	25,935	0	0	66,022	66,022	0	0
85,239	0	85,239	0	56,186	0	56,186	0
56,674	0	56,674	0	58,349	0	58,349	0
86,000	0	83,604	2,396	93,791	0	91,178	2,613
46,789	46,789	0	0	99,184	99,184	0	0
68,289	0	53,298	14,991	45,364	0	35,405	9,959
0	0	0	0	252,004	252,004	0	0
0	0	0	0	86,716	86,716	0	0
52,960	52,960	0	0	79,462	79,462	0	0
125,319	0	125,319	0	57,786	0	57,786	0
0	0	0	0	28,800	28,800	0	0
1,644,254	728,083	836,122	80,049	3,066,420	2,468,033	535,662	62,725
38,048	0	0	38,048	12,885	0	0	12,885
35,642	0	35,642	0	33,540	0	33,540	0
25,909	0	0	25,909	10,890	0	0	10,890
107,120	0	107,120	0	82,867	0	82,867	0
37,861	0	37,861	0	7,449	0	7,449	0
244,580	0	180,623	63,957	147,631	0	123,856	23,775
728,083	1,016,745	144,006		2,468,033	659,518	86,500	



**boston planning &
development agency**



Raymond L. Flynn Marine Park Appendix 4: Consolidated Written Determination Chapter 91 License Application



City of Boston



Client

City of Boston
Economic Development and Industrial Corporation d/b/a
Boston Planning and Development Agency

Consultants

Utile
Nelson Nygaard
Durand & Anastas
Ninigret Partners
HDR
Byrne & McKinney
Noble, Wickersham & Heart
Stantec

February 2022

Table of Contents

1. Consolidated Written Determination Chapter 91 License Application	334
----------------------------------------------------------------------------	-----

Consolidated Written Determination

Chapter 91 License Application

1 INTRODUCTION

The Raymond L. Flynn Marine Park (“RLFMP”), formerly known as the Boston Marine Industrial Park (“BMIP”), is a 191-acre marine industrial park per 310 CMR 9.02 located in the South Boston Waterfront and owned by the Economic Development and Industrial Corporation of Boston (“EDIC”). See Figure 1: Locus Map. The RLFMP is bounded by Boston Harbor on the northeast, the Reserved Channel on the south, Summer Street on the southwest and Commonwealth Flats on the west. The RLFMP is comprised of 30 parcels of land, 25 of which are within the South Boston Designated Port Area (“DPA”). Neighboring uses include the Massport Conley Terminal across the Reserved Channel to the south, the Boston Fish Pier to the north, and various water-dependent activities, manufacturing, and warehousing with some commercial and office uses to the west.

In 1977, the City of Boston, acting through the EDIC, secured ownership of the 167-acre South Boston Naval Annex from the U.S. Department of Defense. The Raymond L. Flynn Marine Park, as the area came to be known, was created to provide jobs for City residents and enhance the City's economy. In 1983, the EDIC purchased another 24 acres that were formerly part of the South Boston Army Base. See Figure 2: RLFMP Map and Figure 3: Aerial View of RLFMP. The EDIC has continued to actively promote the utilization of suitable waterside parcels within the RLFMP for water-dependent industrial use and the development of interior parcels for supporting industrial and commercial uses.

The purpose of this license application is to secure a Consolidated Written Determination that allows for the redevelopment of certain parcels proposed in the Raymond L. Flynn Marine Park Final Master Plan Update that are ineligible for authorization under the existing Master License #10233 to be licensed individually upon request. These specific parcels, detailed in Section 4, are anticipated to be redeveloped in phases over a period of years. The Consolidated Written Determination will enable the Department of Environmental Protection (“DEP”) to regulate the future build-out of the RLFMP and ensure that impacts of individual projects are addressed in individual licenses.

1.1 RLFMP MASTER PLAN AND MASTER LICENSE HISTORY

In 1999, the Boston Redevelopment Authority (“BRA”), now known as the Boston Planning and Development Agency (“BPDA”), and the EDIC developed a Master

Plan for the RLFMP that established a framework for future development within the park and included a specific process for review of future projects under the Massachusetts Environmental Policy Act ("MEPA") and Chapter 91. The Master Plan, titled the "Final Marine Industrial Park Master Plan," promoted maritime and industrial uses and investment in new job-creating industries. The Master Plan also established a regulatory framework within which future development projects proposed in the RLFMP would be reviewed under local zoning, Chapter 91, and MEPA.

The regulatory framework established by the Master Plan involved an application for a Master Chapter 91 license for all uses and activities proposed in the RLFMP in the Master Plan. This Master Chapter 91 license application included a site plan showing existing and proposed building footprints, as well as proposed piers, wharves, and roadways. A spreadsheet detailing land usage within the RLFMP based on the proposed build-out was also included in the license application. Commonly referred to as "Table 7," this spreadsheet demonstrated compliance with overall land use restrictions that required a minimum of 67% of the RLFMP be devoted to water-dependent industrial use. The balance of the RLFMP was to be devoted to other, primarily industrial uses. A maximum of 5% of the RLFMP would be used for commercial uses incidental to and supportive of the water-dependent industrial uses. The Master Chapter 91 license (License #10233) was issued by DEP in 2005. The current version of Table 7 is included in this application as Attachment B. The future build-out as described in Section 5 to be authorized in the Consolidated Written Determination is included in this version of Table 7.

Since the publication of the Master Plan in 1999, there have been significant changes to and investments made in and around the RLFMP. In response to these changes, the BPDA has updated the Master Plan. In December 2017, the BPDA published a Draft Master Plan Update ("DMPU") that also served as a Notice of Project Change ("NPC") under the Massachusetts Environmental Policy Act ("MEPA") to the Final Marine Industrial Park Master Plan (EEA #8161). On January 18, 2018, the Secretary of the Executive Office of Energy and Environmental Affairs (the "Secretary") issued a Certificate on the DMPU, authorizing the BPDA to prepare a Final Master Plan Update ("FMPU") in accordance with the requirements of the Certificate. On February 7, 2020, the Secretary issued a Notice on the Certificate, attaching a memorandum submitted by CZM and DEP summarizing stakeholder engagement, comments, and recommendations regarding the forthcoming FMPU. This Notice required the BPDA to consult with

CZM, DEP, and MEPA and address the agencies' comments and recommendations within the FMPU.

After an extensive stakeholder engagement process, the RLFMP Final Master Plan Update was submitted by the BPDA to MEPA for review. The FMPU will be approved as a Marine Industrial Park Master Plan, pursuant to 310 CMR 9.01. The FMPU reports a decreased demand for certain "over-the-dock" water-dependent industrial uses, highlights an increased demand for flexible general industrial space, and describes the need for significant investment to maintain and improve the park's existing infrastructure to support existing and expanding marine industrial use sectors. The FMPU outlines a strategy for attracting compatible general industrial and commercial users to the RLFMP to help finance maintenance and improvements key to the long-term success of the RLFMP.

1.2 PURPOSE OF THE RLFMP CONSOLIDATED CHAPTER 91 LICENSE

The activities and uses proposed in the RLFMP in the FMPU necessitate an updated Chapter 91 licensing framework. This consolidated license application seeks a Consolidated Written Determination that covers proposed projects and future build-out on specific parcels that cannot be licensed under the existing Marine Industrial Park Master License #10233. New projects covered under the Consolidated Written Determination will require individual Chapter 91 licenses, unlike projects covered under License #10233. These new projects will also be subject to individual environmental review through MEPA and Article 80 of the Boston Zoning Code. It is anticipated that such individual Chapter 91 licenses will be issued when projects are ready for redevelopment in accordance with procedures to be detailed in the Consolidated Written Determination special conditions. Pursuant to 310 CMR 9.15(1)(d), the applicant is requesting a 65-year term for licenses issued under the Consolidated Written Determination for nonwater-dependent uses in a marine industrial park.

Water-dependent industrial uses, infrastructure projects, and other eligible activities will continue to be licensed under License #10233.

2 EXISTING CONDITIONS

The RLFMP is located on the northwestern edge of the City's South Boston Waterfront. The neighborhood contains a variety of land uses including commercial, industrial, mixed-use, government, institutional/public, apartment, and residential. The area immediately surrounding the RLFMP is largely comprised of manufacturing, research and

development, warehousing, and maritime uses, with limited office and commercial activity. Areas south of the RLFMP in South Boston are home to a strong and stable residential community and a diverse variety of commercial uses.

Of the approximately 191 acres in the RLFMP, 138 acres are filled land and 53 acres are water. There are 30 parcels of land that comprise the RLFMP. All but five parcels are within the South Boston DPA and all but four parcels are within Chapter 91 jurisdiction. See Table 1 and Figure 4: RLFMP Parcel Map.

Table 1: Parcel and Building Reference

Parcel	Address	DPA	Chapter 91
A/A-1	1 Drydock Ave.	No	Yes
B	5 Drydock Ave.	Yes	Yes
C-1	1 Terminal St.	Yes	Yes
C-2	5 Terminal St.	Yes	Yes
D	6 and 10 Drydock Ave.	Yes	Yes
F	1 Design Center	Yes	Yes
F-1	Design Center Parking	Yes	Yes
G/H	339 Northern Ave./22 Drydock Ave.	Yes	Yes
I	21-25 Drydock Ave.	Yes	Yes
J	27 Drydock Ave.	Yes	Yes
K	36 Drydock Ave.	Yes	Yes
L	Drydock #3	Yes	Yes
L-1	24-26 Drydock Ave.	Yes	Yes
L-2	7 Tide St.	Yes	Yes
M	3 Dolphin Way	Yes	Yes
M-1	Massport Marine Terminal	Yes	Yes
M-2	Fid Kennedy Ave.	Yes	Yes
N	25 Fid Kennedy Ave.	Yes	Yes
O/P	19 Fid Kennedy Ave./3 Anchor Way	Yes	Yes
Q	12 Channel St.	No	No
Q-1	4 Drydock Ave./Channel St.	No	No
R	6 Tide St.	Yes	Yes
S (S-1, S-2, S-3)	306 Northern Ave.	Yes	Yes
T/T-1	2 Harbor St./6 Harbor St.	No	No
U	7 Channel St.	No	No
V	300 Northern Ave.	Yes	Yes
V-1	Drydock #4	Yes	Yes
W	290 Northern Ave.	Yes	Yes

Parcel	Address	DPA	Chapter 91
X	310-314 Northern Ave.	Yes	Yes
Z	34 Drydock Ave. (Pier 10)	Yes	Yes

The RLFMP currently serves a significant role in the economies of Boston and the Commonwealth. As a publicly owned marine park, the RLFMP serves an important public purpose, providing land for economic development and thereby generating tax revenues and providing jobs to Boston residents. A diverse mix of water-dependent and non-water dependent industrial and commercial uses are contained within the RLFMP. Notable water-dependent uses include seafood processing, ship repair, and distribution. Examples of nonwater-dependent uses include mechanical manufacturing, brewing, interior design, parking, research and development, offices, and various other industrial uses. These nonwater-dependent businesses are the greatest generators of jobs and business activity within the RLFMP. See Table 2 for a breakdown of land use within the RLFMP.

Table 2: RLFMP Land Allocation by Use

Use Type	RLFMP Total		DPA Total	
	Square Feet (sf)	%	Square Feet (sf)	%
Marine Industrial	3,196,116	62.6	3,196,116	67.8
General Industrial	1,676,264	32.8	1,371,785	29.1
Commercial	230,506	4.5	142,774	3.0
Total	5,102,885	100	4,710,674	100

Source: 2021 Table 7

3 CHAPTER 91 JURISDICTION AND LICENSING HISTORY

3.1 EXISTING CHAPTER 91 JURISDICTION

The RLFMP includes a total of 191 acres of EDIC-owned property, consisting of filled and flowed tidelands and located in the South Boston Designated Port Area (DPA). Not all of the RLFMP, however, is located within Chapter 91 jurisdiction or within the DPA. Waterways jurisdiction encompasses approximately 179 acres out of the 191 acres of land and water within the RLFMP. See Figure 4: RLFMP Parcel Map. The approximately twelve acres that are outside of jurisdiction include parcels and common areas north of Dry Dock Avenue, west of Harbor Street, and south of Northern Avenue.

3.2 SITE HISTORY AND CHAPTER 91 LICENSING

The RLFMP is located in an area known as Commonwealth Flats. This area was originally a vast area of intertidal flats that was filled by the Commonwealth for economic development purposes in the late 1800s and early 1900s. In 1866, the Board of Harbor and Land Commissioners recommended that the RLFMP site be filled as part of a large project to create land, piers, and channels in South Boston. The Fourth Annual Report of the Board of Harbor Commissioners, referenced in Chapter 81 of the Resolves of 1866, describes a series of contracts for filling almost 750 acres of tidelands, constructing a seawall approximately two miles long from Fort Point Channel to Fort Independence, and reserving a channel to the deep water approximately 500 feet wide.

The Legislature then authorized the Harbor and Land Commissioners to issue contracts for the dredging and deepening of the Flats (Chapter 354 of the Acts of 1867) and later for the filling, occupation, and improvements to the Flats (Chapter 326 of the Acts of 1868). Several historic plans between the dates of 1873 and 1915 show the progress of the filling of the Commonwealth Flats. It is believed that at least part of the RLFMP was filled in the early 1900s. See Table 4: Summary of Chapter 91 Licenses).

The physical assets of the RLFMP, including the land, buildings, dry docks, piers, and channels, were constructed primarily by the federal government in the early part of the 20th century. In 1920, the federal government purchased the area of the South Boston Naval Annex from the Commonwealth of Massachusetts. At the same time, the U.S. Army purchased land from the Commonwealth for the South Boston Army Base. Most of the buildings on the two sites were erected between 1914 and the mid-1940s.

During the post-World War II era, activity in the South Boston Army Base declined and the shipyard functions were consolidated in the Charlestown Navy Yard, leaving the buildings and structures in the South Boston Naval Annex to fall into disrepair. In 1973, the U.S. Department of Defense announced the closing of the Naval Annex and in July of 1974, the facility was formally closed.

EDIC, the City of Boston, and the Commonwealth recognized that the Naval Annex was a prime site to pursue EDIC's legislative mandate to encourage economic development. The area contained large expanses of land and piers, major industrial buildings, and two drydocks; was accessible by water, air, train, and highway; and was conveniently located near a skilled workforce in the South

Boston community. In 1975, EDIC entered into a Protection and Maintenance Agreement for the site and the legislature acted to create the Massachusetts Government Land Bank. The Land Bank was created to aid "in the speedy and orderly conversion and redevelopment of certain lands (including the Naval Annex) formerly used for military activities to non-military uses, including industrial, commercial and residential uses, in order to prevent blight, economic dislocation, and additional unemployment." In 1976, the Economic Development Plan for the Boston Marine Industrial Park (the "EDP") was created to guide the reuse and development of the Naval Annex. In 1977, after approving the EDP as a "redevelopment plan", the Land Bank acquired the 167-acre property and granted it to EDIC. In 1980, the EDP was amended to include portions of the South Boston Army Base. In 1983, EDIC purchased a 24-acre portion of the 58-acre former Army Base that included the 1.6-million square foot Building No. 114. Together the Naval Annex and the 24-acre portion of the South Boston Army Base comprise the 191-acre site known as the Marine Industrial Park. In 1980, Massport made the only major addition to the RLFMP's maritime assets through the construction of the 47-acre Massport Marine Terminal. The initial objectives for the redevelopment of the abandoned military facilities have been largely implemented, with nearly all of the parcels currently occupied by a variety of water-dependent, industrial, and commercial uses.

Table 3 outlines key milestones in the development of the RLFMP and Table 4 lists the Chapter 91 licenses issued since the RLFMP was acquired by the EDIC in 1977. Table 5 lists the Minor Revisions made to the Master Chapter 91 License #10233 since its issuance in 2005.

Table 3: Key Milestones

Date	Description
1890s – 1920s	Development of Commonwealth Flats through legislative authorizations
1920s – 1940s	Sale to U.S. Government for maritime and military purposes, further development of military uses
1974	Abandonment of military use and base conversion for economic development
1976	Creation of MEPA Unit and provisions for environmental review of development projects
1977	EDIC land acquisition of South Boston Naval Annex
1978	Approval of CZM plan, designation of South Boston DPA (promotion, economic development)

Date	Description
1978	First set of Ch. 91 regulations, flexibility for dredging, filling, economic development
1980	EDIC/Massport waterways license for maritime industrial use of Massport Marine Terminal
1983	EDIC land acquisition and Economic Development Plan for South Boston Army Base
1983	Legislative Act extends Ch. 91 to filled tidelands, regulates land use in DPA
1988	Maritime Economy Reserve zoning implemented in Boston
1990	MEPA/BRA establish special procedures for Master Plan
1990	New Ch. 91 regulations finalized, restricts DPA land use significantly
1994	Ch. 91 DPA regulations modified to allow greater flexibility based on statewide problems with implementation
1994	MEPA amends scope for Master Plan based on CA/T activities in the area and revised Ch. 91 regulations
1996	Port of Boston Economic Development Plan released
1996	Draft Master Plan submitted to MEPA
1997	Draft Master Plan Update submitted to MEPA
2005	DEP issues Chapter 91 Master License
2017	BPDA files Notice of Project Change for new Master Plan
2017	BPDA files Draft Master Plan Update
2018	MEPA Certificate on Draft Master Plan Update
2022	Final Master Plan Update submitted to MEPA

Table 4: Summary of Chapter 91 Licenses

License #	Date	Licensee	Use	Location
669	7/18/1980	EDIC	Construct and maintain earth dike/rock/fill and drainage in Boston Harbor	Piers 1-4
1378	6/22/1987	VII Corporation	Construct and maintain pile-held floating barges, marginal walkways and finger piers, fuel barge slip and place pile-supported platforms, gangways, and timber mooring piles for 10 years	Northern Avenue
1636	6/22/1987	EDIC	Reconstruct and maintain	Pier 10

License #	Date	Licensee	Use	Location
			pier	
2347	5/9/1990	EDIC	Construct and maintain vehicular parking facility	Lot E Dry Dock Avenue
2688	9/30/1991	MDPW	Construct and maintain vehicular tunnel and ventilation building	Across Boston Harbor
2920	5/14/1992	MDPW	Construct and maintain temporary circular cofferdam and fill	General Ship slip
2907	7/22/1992	MHD	Construct and maintain temporary barge loading facility (subsequent modifications included second barge?)	Subaru Pier
3235	2/3/1993	EDIC	Reconstruct a pier, construct and maintain buildings, ramp, and float	Berth 10 and Terminal Street
3247	2/19/1993	Kiewit, Perini Atkinson and Cashman	Operate and maintain a temporary indoor concrete batch facility (final license?)	Building 16 BMIP
5317	2/12/1996	Boston Design Center and EDIC	Maintain portion of an eight-story building, with associated parking, internal circulation drives, sidewalks, plaza, and loading zone	Boston Design Center Reserved Channel
5070, 5071	1997	Boston Seafood Center (New Boston)	New building	Parcel X
*WRP JD-98-6009	2/11/1999	Harborlights Pavilion	Temporary relocation to Wharf 8	Parcel W
7917	3/3/1999	North Coast Seafood	New building	Parcel B
7961	6/28/1999	EDIC	Water transit dock to service BankBoston Pavilion	Parcel W
9230	4/4/2002	EDIC	Parking Garage	Parcel Y

License #	Date	Licensee	Use	Location
10233	3/16/2005	EDIC	Master License	Park-wide

*Note: Leader Bank (formerly Harborlights, BankBoston, and Blue Hills Bank) Pavilion received a Determination of Applicability, not a Chapter 91 License, for its temporary relocation to Wharf 8.

Table 5: Minor Revisions to License #10233

Date	Description
12/21/2005	Parcels D and E Boston Freight Terminal
1/27/2006	Parcel Y Garage Expansion
6/21/2011	Parcel S Harpoon Brewery
6/4/2014	Parcel R 6 Tide Street Redevelopment
10/8/2014	Parcel I 21-25 Drydock Avenue
3/12/2015	Parcel M-2 NSTAR Substation
6/8/2016	Parcel V and V1 Shoreline Infrastructure Improvements
April 2018	Parcel Y Garage Expansion
12/30/2021	Parcel O and Parcel P Redevelopment

4 PROJECT SITE – JURISDICTIONAL AREA TO BE LICENSED

The Project Site consists of eight parcels within the DPA and Chapter 91 jurisdiction that are targeted for redevelopment and ineligible to be licensed under License #10233. These parcels are listed in Table 6 below and shown Figure 5: Project Site Parcels. The entire area of the Project Site is approximately 1,243,850 sf.

Table 6: Project Site Parcels

Parcel	Address	Parcel Area (sf)	Parcel Status	Current Use(s)
F-1	Design Center Parking	50,469	Active	Parking for General Industrial, Commercial
G/H	339 Northern Ave./22 Drydock Ave.	79,818	Active	General Industrial
L	Drydock #3	468,373	Active	Marine Industrial
L-1	24-26 Drydock Ave.	32,324	Vacant	Marine Industrial
L-2	7 Tide Street	58,400	Active	General Industrial
O/P	19 Fid Kennedy Ave./3 Anchor Way	115,023	Under Construction	General Industrial
S	306 Northern Ave.	259,626	Active	Marine Industrial,

Parcel	Address	Parcel Area (sf)	Parcel Status	Current Use(s)
				General Industrial, Commercial
X	310-314 Northern Ave.	183,105	Active	Marine Industrial

5 PROJECT DESCRIPTION

The sections below describe the existing and future conditions on each of the eight parcels comprising the Project Site. All of the parcels comprising the Project Site are in or partially within the FEMA mapped AE zone at elevation 10' NAVD88. Only a small portion of Parcel X is within the floodplain. Parcels G/H, O/P, L-1, L-2, and L are all entirely within the floodplain. A small portion of Parcel L at the dry dock gates is in the VE zone. See Figure 6: FEMA Flood Map. All parcels are within the General Industrial (I-2) or South Boston Maritime Economy Reserve zoning subdistricts. See Figure 7: Zoning Map.

5.1 EXISTING CONDITIONS

Parcel F-1

Parcel F-1 is located west of the Boston Design Center at 1 Design Center Place. Parcel F-1 is bounded by Drydock Avenue to the north, Design Center Place to the east, Black Falcon Avenue to the south, and Parcel B to the west. The 50,469-sf parcel is leased by Jamestown and is currently in active use as a surface parking lot. This lot contains 177 spaces that are used by Jamestown's subtenants. Parcel F-1 was identified as a development-ready site in the 2017 DMPU and 2021 FMPU.

Parcel G/H

Parcel G/H consists of Parcels G, G-1, G-2, and H. Located at 339 Northern Avenue, Parcels G, G-1, and G-2 are currently occupied by a surface parking lot, a Bell Atlantic switch station, and lobster/seafood businesses. Parcels G, G-1, and G-2 have a collective area of 53,009 sf and contain a single, 24,898-sf building.

Parcel H is a 26,809-sf parcel located at 22 Drydock Avenue. Parcel H contains a single, 43,419-sf building with active general industrial uses. The EDIC is the primary tenant, although there are additional subtenants within the three-story building.

Parcels G, G-1, G-2, and H, collectively referred to as Parcel G/H, are anticipated to be combined for a mixed-industrial use development. The combined area of Parcel G/H, bounded by Northern Avenue to the north, Tide Street to the east, Drydock Avenue to the south, and Parcel Y to the west, is 78,288 sf.

Parcel L

Parcel L is a 468,373-sf parcel containing a 13,072-sf building. Parcel L contains Dry Dock #3, the only active dry dock in the RLFMP and one of two true “over-the-dock” water-dependent industrial uses in the RLFMP. Parcel L is leased by Boston Ship Repair and is an active ship repair facility. Dry Dock #3 is capable of handling a wide range of modern ships and is the largest dry dock in New England.

Parcel L-1

Parcel L-1 is located southwest of Parcel L at 24-26 Drydock Avenue. Parcel L-1 is also leased by Boston Ship Repair and contains marine industrial uses. The parcel is 32,324 sf and contains a 32,214-sf building that is vacant and in significant disrepair. The BPDA issued a Request for Proposals for Parcel L-1 in coordination with Boston Ship Repair for redevelopment of the site, which is intended to benefit and support the existing marine industrial user. The proposal submitted by The Cronin Group, LLC was determined to be the most highly advantageous and they were awarded a tentative designation to redevelop the site in January 2020.

Parcel L-2

Parcel L-2 is located at 7 Tide Street and is bounded by Fid Kennedy Avenue to the north, Anchor Way to the east, Parcel L to the south, and Tide Street to the west. The corner of Tide Street and Fid Kennedy Avenue is a major intersection for truck traffic circulating to the larger seafood processors on Parcel X and Parcel M-1. Parcel L-2 is 58,400 sf and contains on-site parking and a single, 36,110-sf building. Multiple tenants currently lease the parcel, which contains industrial uses.

Parcel O/P

Parcel O is located at 19 Fid Kennedy Avenue and Parcel P is located at 3 Anchor Way. The two adjacent parcels are bounded by Fid Kennedy Avenue to the north, Capstan Way to the east, Parcel L to the south, and Anchor Way to the west.

Parcel O is 68,564 sf and contains a 46,000 sf vacant building, an approximately 700-sf building, and approximately 89 surface parking spaces. Parcel O was previously leased by Au Bon Pain, which used the building for the manufacturing of bakery product for Au Bon Pain and Panera Bread. Au Bon Pain and Panera Bread have since relocated outside of the RLFMP. In October 2020, the EDIC approved the assignment of the ground lease for Parcel O to Marcus Partners, or its affiliate.

Parcel P is 24,280 sf and contains an approximately 12,700-sf building. The building was previously leased by the Matt J. McDonald Company. The ground lease for Parcel P has also been assigned to Marcus Partners, or its affiliate. The approved terms and conditions of the new ground lease with EDIC allowed the combination of the two parcels into one 115,023-sf lot that includes Au Bon Pain Way, referred to as Parcel O/P. The combined Parcels O and P and Au Bon Pain Way create a single 115,023-sf parcel, and the redevelopment with an eight-story research and development facility has been authorized under a Minor Revision to License #10233. Early site work for construction of a new industrial building on Parcel O/P has commenced.

Parcel S

Parcel S is comprised of three separate parcels, S-1, S-2, and S-3. Collectively, Parcel S is 259,626 sf and contains one building that is approximately 107,440 sf. Parcel S is bordered by Fid Kennedy Avenue to the north, Seafood Way to the east, Northern Avenue to the south, and Parcel V-1 to the east. Parcel S contains marine industrial, general industrial, and commercial uses. Parcel S-1 is occupied by Nagle Seafood, a seafood processing and distribution facility. Parcel S-2 is occupied by Harpoon Brewery and Parcel S-3 is a parking lot leased by Harpoon Brewery that is being used as a temporary outdoor beer garden space.

Parcel X

Parcel X is located at 310-314 Northern Avenue in the center of the RLFMP. Parcel X is 183,105 sf and is bounded by Fid Kennedy Avenue to the north, Access Road

B to the east, Northern Avenue to the south, and Access Road A to the west. The parcel is currently home to the New Boston Seafood Center, consisting of two large, multi-tenant seafood processing and distribution facilities.

5.2 FUTURE CONDITIONS

The following section provides information about future build-out scenarios and redevelopment projects, as applicable, on the eight parcels discussed above. Table 7 below contains information specific to the potential build-out of these parcels. Figure 8: Future Massing on Project Site Parcels shows the massing of the conceptual future buildings on each of these parcels.

Table 7: Future Development on Project Site Parcels

Parcel	Address	Parcel Area (sf)	Full Future Development Information (sf)			
			Total	Maritime Industrial	General Industrial	Comm.
F-1	Design Center Parking Lot	50,469	201,876	37,159	164,717	
G/H	339 Northern Ave./22 Drydock Ave.	79,818	319,272		319,272	
L	Drydock #3	468,373	648,000	76,000	572,000	
L-1	24-26 Drydock Ave.	32,324	250,000	30,000	220,000	
L-2	7 Tide Street	58,400	233,600		233,600	
O/P	19 Fid Kennedy Ave./3 Anchor Way	115,023	460,092		460,092	
S	306 Northern Ave	259,636	190,509	53,720	106,760	30,029
X	310-314 Northern Ave.	183,105	733,620		733,620	

Parcel F-1

The full build-out of Parcel F-1 contemplated in the FMPU is 201,876 sf. Uses on the parcel will include maritime industrial and general industrial. Approximately 37,159 sf will be dedicated to maritime industrial uses and approximately 164,717 sf will be dedicated to general industrial uses.

Parcel G/H

Future build-out on Parcel G/H is anticipated to consist of 319,272 sf of general industrial uses, although allowed uses include marine industrial uses. The EDIC issued a Request for Proposals ("RFP") for the redevelopment and ground lease

of Parcel G/H in April 2021. Proposals were received from three respondents in July 2021 and are currently under review.

Parcel L

Future development on Parcel L will include a build-out of up to 648,000 sf. Up to 572,000 sf will consist of general industrial uses and 76,000 sf will consist of maritime industrial uses. This development will help subsidize necessary capital improvements to the shipyard on Parcel L, which needs additional laydown area, shop space, a wet berth, and a power system upgrade. Future general industrial uses will be subject to an independent analysis/review to ensure that the shipyard can continue to function and expand.

Parcel L-1

Future development on Parcel L-1 will be capped at 250,000 sf. Up to 220,000 sf will consist of general industrial uses and 30,000 sf will consist of maritime industrial uses.

Cronin Drydock, LLC, the lessee of Parcel L-1, has filed an Expanded Project Notification Form (EPNF) with the BPDA that is currently under review. The proposed project involves the demolition of the existing structure on Parcel L-1 and the construction of a new, eight-story building of 235,500 sf of marine industrial, life sciences/research and development, and supportive uses.

Parcel L-2

Parcel L-2 will include up to 233,600 sf of general industrial or mixed-industrial uses.

Parcel O/P

Parcels O and P and Au Bon Pain Way have been combined into a single, 115-023-sf parcel and are undergoing redevelopment by Marcus Partners, the lessee of Parcels O and P. The existing building on Parcel O will be demolished and a new, approximately 219,000-sf life sciences/research and development building will be constructed. The existing building on Parcel P will be adaptively reused as a 9,000-sf amenity space for the tenants of the new building on Parcel O. While this project was eligible for authorization under License #10233 as a Minor Revision per Special Condition #6, the parcel could include additional future build-out up to a total of 460,092 sf of general industrial uses.

Parcel S

Future redevelopment on Parcel S could include up to 190,509 sf of build-out. Maritime industrial uses would occupy 53,720 sf, general industrial uses would occupy 106,760 sf, and commercial uses would utilize the remaining the 30,029 sf. The existing building on Parcel S would remain, and Parcel S-3, currently a parking lot, would be the most likely location of future redevelopment.

Parcel X

Redevelopment on Parcel X is capped at 733,620 sf of general industrial uses. Marcus Partners has proposed the construction of two buildings totaling approximately 720,000 sf of life sciences/research and development space. Prior to the redevelopment, Marcus Partners would facilitate the relocation of the existing seafood tenants to facilities at the Massport Marine Terminal.

6 COMPLIANCE WITH WATERWAYS STANDARDS

310 CMR 9.31 – Proper Public Purpose

The Project is a nonwater-dependent use pursuant to 310 CMR 9.12(1). As such, the Project must serve a proper public purpose which provides greater benefit than detriment to the rights of the public on the Project Site. The Project meets this standard by complying with 310 CMR 9.51, 9.52, and 9.54.

310 CMR 9.32 – Categorical Restrictions on Fill and Structures

The Project is comprised of Supporting DPA Uses, as defined at 310 CMR 9.02. The Project meets the standard at 310 CMR 9.32(1)(b)5 by conforming to a Marine Industrial Park Master Plan. The RLFMP FMPU specifies site coverage ratios for Supporting DPA Uses that exceed 25% of the total area of the South Boston DPA. See Table 7 for a breakdown of land uses within the RLFMP and South Boston DPA.

In accordance with 310 CMR 9.32(1)(b)5, the Project's Supporting DPA Uses are relatively condensed in footprint, are compatible with existing water-dependent uses within the RLFMP, and preserve and maintain the Project Site's utility for existing and prospective water-dependent industrial uses. Parking associated with these Supporting DPA Uses will be limited to the footprint of existing licensed fill and none of the parcels contain a Water-dependent Use Zone.

310 CMR 9.33 – Environmental Protection Standards

The Project complies with applicable regulatory programs of the Commonwealth, including MEPA regulations, Wetlands Protection Act regulations, and Massachusetts Historical Commission regulations.

A. MASSACHUSETTS ENVIRONMENTAL PROTECTION ACT

The Project will comply with the Massachusetts Environmental Policy Act (MEPA). The Project conforms with a Marine Industrial Park Master Plan, the RLFMP FMPU, which is subject to MEPA review. It is anticipated that the Consolidated Written Determination requested via this application will require all individual projects included in this application to be reviewed by MEPA through Special Review Procedures (“SRP”) pursuant to 301 CMR 11.09. The EDIC will set SRP criteria based upon present potential cumulative environmental impacts, an analysis of alternatives, and appropriate mitigation measures. The SRP criteria will focus on MEPA thresholds triggered by the RLFMP build-out projections, including transportation and parking, wetlands (specifically Land Subject to Coastal Storm Flowage), and greenhouse gas emissions.

B. WETLANDS PROTECTION ACT

The Project will comply with the Wetlands Protection Act. All individual projects included in this application must also comply with the City of Boston Wetlands Ordinance and Regulations. A Notice of Intent will be filed with the Boston Conservation Commission for all individual projects as they proceed through the review process. An Order of Conditions is required prior to license issuance.

C. MASSACHUSETTS HISTORICAL COMMISSION ACT

The Project will comply with the Massachusetts Historical Commission regulations. All individual projects included in this application will require review by the Massachusetts Historical Commission (MHC) for impacts to historic and archaeological properties. A Project Notification Form will be filed with MHC for all individual projects, when appropriate.

310 CMR 9.35 – Standards to Preserve Water-Related Public Rights

The Project will preserve the water-related rights of the public in filled tidelands. None of these parcels have flowed tidelands and thus there will be no adverse impact on navigation. As these parcels also lack water frontage, public rights of fishing, fowling and navigation will be unaffected. Public access will be provided along each public way abutting the parcels with improvements to the streetscape as deemed appropriate during the Article 80 process.

The Project includes tidelands accessible to the public and will provide for long-term management of such areas, which achieves effective public use and enjoyment while minimizing conflict with other legitimate interests, including the protection of private property and natural resources.

310 CMR 9.36 – Standards to Protect Water-Dependent Uses

The Project will not impact the availability and suitability of tidelands that are in use for water-dependent purposes.

The Project will not interfere with littoral property owners' right to approach their property from a waterway or approach the waterway from their property, as there are no navigable waters on these parcels.

The Project will not significantly disrupt any water-dependent use in operation, as of the date of license application, at any location within the proximate vicinity of the Project Site. The RLFMP has a diverse mix of water-dependent industrial and nonwater-dependent industrial uses that have successfully coexisted for many decades. As individual parcels are developed, the license applications will be reviewed to ensure that measures are in place to protect existing water-dependent uses. Special attention will be paid to the maintaining and improving truck access within and to the marine park as part of the capital improvements program.

Several of the parcels currently have water-dependent industrial tenants. On Parcel G/H, Parcel M-1, Parcel S, and Parcel X, there are seafood related businesses. Parcel K includes Coastal Cement. On Parcel L, Boston Ship Repair operates a large ship repair business. In each of these cases, provisions have been made to either continue the existing uses on site, provide superior replacement facilities at nearby locations or to voluntarily relocate and/or discontinue the business. For Parcel H, existing tenants will be either voluntarily relocated elsewhere or provided with new facilities on site. For Parcel L, the ship repair operations will be continued on site while surplus parcels are redeveloped. For Parcel S, existing seafood operations will be continued in place. In the case of Parcel X, the existing water-dependent industrial tenants have agreed to be

relocated to new facilities to be constructed at Parcel M-1 or otherwise voluntarily cease operations.

In accordance with 9.36(5)(b), the individual projects included in this license application are designed to ensure that critical water dependent facilities and infrastructure will remain available for water dependent use throughout the RLFMP. New buildings to be constructed can either be adapted for water-dependent industrial use or will be utilized in accordance with the Marine Industrial Park Master Plan to ensure a proper mix of water-dependent and nonwater-dependent uses. Each project also will help to financially support infrastructure improvements to the RLFMP and the development of resiliency measures to protect against sea level rise.

310 CMR 9.37 – Engineering and Construction Standards

The Project will comply with 310 CMR 9.37(1). All fill and structures will be designed and constructed in a manner that is structurally sound, as certified by a Registered Professional Engineer. Individual projects will comply with applicable state requirements for construction in flood plains and will not pose an unreasonable threat to navigation, public health or safety, or adjacent buildings or structures, if damaged or destroyed in a storm.

The Project is located within a flood zone and will comply with 310 CMR 9.37(2). New or expanded buildings will not be located seaward of the high water mark and new buildings for nonwater-dependent use intended for human occupancy will be designed and constructed to withstand the wind and wave forces associated with the statistical 100-year frequency storm event. Individual projects will incorporate projected sea level rise during the design life of the buildings and such projections will be based on newly developed standards contained in Article 25A and otherwise comply with applicable regulations.

310 CMR 9.51 – Conservation of Capacity for Water-Dependent Use

The Project will meet this standard. Fill or structures associated with the Project will not unreasonably diminish the capacity of the Project Site to accommodate water-dependent use. In accordance with 310 CMR 9.51(1), Project facilities will be developed in a manner that prevents significant conflict in operation between their uses and those of any water-dependent facility within the RLFMP. In accordance with 310 CMR 9.51(2), structures or spaces associated with the Project will be developed in a manner that protects the utility and adaptability of the RLFMP for water-dependent purposes by preventing significant incompatibility in design with structures and spaces which

reasonably can be expected to serve such purposes, either on or adjacent to the Project Site.

310 CMR 9.52 – Utilization of Shoreline for Water-Dependent Purposes

The Project Site does not have a shoreline and does not contain a Water-dependent Use Zone.

310 CMR 9.54 – Consistency with Coastal Zone Management Policies

The Project is required to be consistent with the Massachusetts CZM Program Policies in accordance with the standards of 310 CMR 9.54. The Project’s consistency with relevant policies and principles is described below.

COASTAL HAZARDS

Coastal Hazards Policy #1

Preserve, protect, restore, and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes, and land under the ocean.

The Project Site is on filled tidelands in a DPA and absent natural coastal landforms. The Project is within land subject to coastal storm flowage. All proposed structures will be designed to City of Boston resiliency standards and to comply with local and state wetlands regulations.

The Climate Resiliency Fund will provide a mechanism for the City to finance much-needed neighborhood-wide resiliency infrastructure, such as construction of a seawalls to surround the RLFMP and prevent flood water intrusion. The Climate Resiliency Fund will allow the City to create cost-effective, neighborhood-scale improvements to ensure the long-term viability of the RLFMP.

GROWTH MANAGEMENT

Growth Management Principle #1

Encourage sustainable development that is consistent with state, regional, and local plans and supports the quality and character of the community.

The Metropolitan Area Planning Council’s (“MAPC”) *MetroFuture Making A Greater Boston Region* places a heavy emphasis on redevelopment of existing

commercial and industrial areas for job growth and avoidance of greenfield development. The Project will create both construction jobs and permanent long-term jobs, and increased revenues for the City through additional real estate taxes, ground rent and other associated fees and assessments. The Project's uses will allow it to create new employment opportunities in a variety of fields and at all levels. Such redevelopment is planned to happen expeditiously thanks to well-defined community expectations and new infrastructure financing tools such as the expectation of leveraging of private development investment, which the BPDA has defined in the RLFMP. MAPC believes that more job growth would occur through redevelopment of existing commercial and industrial areas and that this approach is intended to be aided by proactive planning policies that would reduce time spent in permitting.

The Project is consistent with MAPC's specific objectives:

- All new residential and commercial development will meet the requirements of LEED; and
- 60% of new commercial and industrial development in the region (measured in terms of jobs created) will occur on land that is already developed.

In the City of Boston's *Boston 2030*, the Economy section states the industrial approach is to support Boston's industrial economy and capitalize on its strengths through a coordinated land-use, economic development, and job-training approach. The Project is consistent with the Plan's recognition that, "spurred by strengths in technology, healthcare, and professional services, advanced manufacturing uses such as biotech manufacturing and prototyping have the potential to thrive in Boston. Incubators and other businesses that benefit from proximity to manufacturing are already locating in industrial buildings and creating well-paying jobs across a range of skill levels." Furthermore, the Project is consistent with the Plan's recognition of Supporting uses in the RLFMP, "In recent years, Research and Development, innovation, and advanced manufacturing uses have introduced a new workforce to the marine park Supporting industrial uses and integrating mixed-industrial space would allow for a more balanced and sustainable marine industrial district. This strategy would allow development sites to return to marine industrial uses should the market demand it, and thus allow for flexibility in responding to economic and market trends."

Growth Management Principle #3

Encourage the revitalization and enhancement of existing development centers in the coastal zone through technical assistance and financial support for residential, commercial, and industrial development.

The Project is consistent with the CZM policy which encourages a revitalization of existing development centers. The Project brings financial support that will create both construction jobs and permanent long-term jobs, and increased revenues for the City through additional real estate taxes. As Supporting DPA Uses, the ground rent and other associated fees and assessments will provide financial support directly to maintaining, upgrading, and protecting infrastructure that is vital for the RLFMP to improve the Park's capacity for water-dependent industrial uses.

HABITAT

Habitat Policy #1

Protect coastal, estuarine, and marine habitats—including salt marshes, shellfish beds, submerged aquatic vegetation, dunes, beaches, barrier beaches, banks, salt ponds, eelgrass beds, tidal flats, rocky shores, bays, sounds, and other ocean habitats—and coastal freshwater streams, ponds, and wetlands to preserve critical wildlife habitat and other important functions and services including nutrient and sediment attenuation, wave and storm damage protection, and landform movement and processes.

The Project Site does not contain important marine habitats. However, Best Management Practices (BMPs) will be implemented during construction and the Project will comply with MassDEP's stormwater management standards to protect nearby marine waters. The Project's approach to resiliency measures will reduce flood damage risks and contribute to pollution prevention functions.

Habitat Policy #2

Advance the restoration of degraded or former habitats in coastal and marine areas.

The Project will comply with MassDEP's stormwater management standards. The Project's approach to resiliency measures will reduce flood damage risks and contribute to pollution prevention functions.

PORTS AND HARBORS

Ports and Harbors Policy #4

For development on tidelands and other coastal waterways, preserve and enhance the immediate waterfront for vessel-related activities that require sufficient space and suitable facilities along the water's edge for operational purposes.

The Project Site is set back from the water and does not encroach on space required for vessel activities or related facilities. As a Supporting DPA Use Project, the ground rent and other associated fees and assessments will provide financial support directly to maintaining, upgrading, and protecting infrastructure that is vital for the RLFMP to improve the Park's capacity for water-dependent industrial uses and vessel-related activities.

Ports and Harbors Policy #5

Encourage, through technical and financial assistance, expansion of water dependent uses in Designated Port Areas and developed harbors, re-development of urban waterfronts, and expansion of physical and visual access.

The Project will support the water-dependent uses in the RLFMP through financial support for maintaining, upgrading, and protecting vital infrastructure. The Project will also encourage redevelopment of urban waterfronts.

PROTECTED AREAS

Protected Area Policy #1

Preserve, restore, and enhance coastal Areas of Critical Environmental Concern, which are complexes of natural and cultural resources of regional or statewide significance.

The Project is not near nor related to an ACEC.

Protected Area Policy #3

Ensure that proposed developments in or near designated or registered historic places respect the preservation intent of the designation and that potential adverse effects are minimized.

The Project Site is within the inventoried area known as the Boston Army Supply Base (BOS.RT). The area has been determined eligible for listing on the National

Register of Historic Places as a potential historic district. Within the area are properties that are considered to be contributing, which contribute to the historic character of the potential district, as well as those that are non-contributing, which do not contribute to the historic character of the potential district. The Project Site includes only a few existing buildings listed in the state inventory. As part of the development review process, the proposed projects will be reviewed by the Massachusetts Historical Commission to ensure that adverse effects on historic structures are avoided or minimized.

PUBLIC ACCESS

Public Access Policy #1

Ensure that development (both water-dependent or nonwater-dependent) of coastal sites subject to state waterways regulation will promote general public enjoyment of the water's edge, to an extent commensurate with the Commonwealth's interests in flowed and filled tidelands under the Public Trust Doctrine.

None of the parcels are located at the water's edge and thus there is not shoreline access. However, through the Article 80 Design Review process, public access along public ways leading to the water will be improved through appropriate sidewalks.

Public Access Policy #2

Improve public access to existing coastal recreation facilities and alleviate auto traffic and parking problems through improvements in public transportation and trail links (land or water-based) to other nearby facilities. Increase capacity of existing recreation areas by facilitating multiple use and by improving management, maintenance, and public support facilities. Ensure that the adverse impacts of developments proposed near existing public access and recreation sites are minimized.

As a marine industrial park, there are limited public access points open to the public. The proposed Project will further access to these areas by maintaining or enhancing existing public access along streets and sidewalks.

WATER QUALITY

Water Quality Policy #1

Ensure that point source discharges and withdrawals in or affecting the coastal zone do not compromise water quality standards and protect designated uses and other interests.

The Project does not include point source discharges or water withdrawals in or affecting the Coastal Zone.

Water Quality Policy #2

Ensure the implementation of nonpoint source pollution controls to promote the attainment of water quality standards and protect designated uses and other interests.

All proposed Projects will conform to MassDEP and Boston Water and Sewer Commission (BWSC) storm water standards, thus minimizing impacts of nonpoint source pollution.

7 REQUEST FOR CONSOLIDATED WRITTEN DETERMINATION

The EDIC respectfully requests that DEP issue a Consolidated Written Determination indicating its intent to approve this consolidated license application, subject to certain Special Conditions. As future build-out in the RLFMP is anticipated to span several years, this Consolidated Written Determination provides DEP the opportunity to authorize future development in a phased approach over time.

It is anticipated that the Special Conditions attached to the requested Consolidated Written Determination will outline a process by which individual projects on the Project Site can apply for a license when appropriate. The EDIC requests that the Consolidated Written Determination include details on what plans, documentation, and analyses must be included in such applications. Additionally, it is expected that a MEPA review process for each individual project will be defined in the Consolidated Written Determination.

7.1 PROPOSED CONDITIONS

Below is a draft of proposed conditions to be included in the Consolidated Written Determination:

Individual license requests shall include plans prepared in accordance with 310 CMR 9.11 (3). License plans must remain in conformance with the CWD provided that proposed projects:

- *Are consistent with the approved RLFMP Master Plan Update;*
- *Meet all of the applicable CWD conditions;*
- *Conform to Table 7 in buildout volume and use;*
- *Conform to the building and site layout shown on project site plan submitted with CWD;*
- *Propose no new uses other than those identified in Table 7;*
- *Are consistent with current DEP Waterways Program Sea-level rise policies;*
- *Do not trigger further MEPA review other than SRP process (such as a Notice of Project Change);*
- *Provide supplemental environmental analysis with SRP Commencement Notifications;*
- *Conform to Logan Air Space mapping that promotes critical airspace around Boston Logan International Airport to protect the flight corridors in and out of the airport; and*
- *Undergo a third-party assessment to determine the shipyard can continue to function independently for non-water dependent uses and structures proposed on Parcels L and L-1.*



**boston planning &
development agency**