99 Sumner Street/Hodge Boiler Works Site

East Boston, Massachusetts

Notice of Project Change

April 10, 2017

submitted to
Boston Planning & Development Agency

submitted by
DIV Sumner Street, LLC

prepared by
Fort Point Associates, Inc.

in association with
CUBE 3 Studio
Copley Wolff Design Group
Howard Stein Hudson
Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, P.C.
Childs Engineering Corporation
Building Consultation Services

Fort Point Associates, Inc.
Urban Planning Environmental Consulting Project Permitting

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PROJECT SUMMARY

CHAPTER 1: PROJECT SUMMARY

1.1 PROJECT DESCRIPTION

The proposed project at 99 Sumner Street, East Boston (the "Project Site") is a transit-oriented, mixed-use development consisting of approximately 119 housing units, approximately 7,200 square feet (sf) of commercial space intended to be used as work share space available to the public, and public open space, which includes a new section of the East Boston Harborwalk along Boston Harbor (the "Project"). See Table 1-1, Project Program and Figure 1-1, Project Locus.

Table 1-1: Project Program

Project Component	Dimensions/Count
Project Site	2.5 acres (1.5 acres land, 1.0 acres watersheet)
Gross Floor Area	125,614 ± sf
Floor Area Ratio	2.1
Residential Uses	Approximately 119 housing units
Commercial Uses	Approximately 7,200 sf work share space
Bicycle Parking	147 spaces • *119 spaces within the building for residents* • *28 spaces exterior to the building for residents, visitors, and public use*
Vehicle Parking	Approximately 83 spaces
Open Space	39,545± sf (65% of Project Site) • *Public Open Space: 34,500 ± sf* • *Private Open Space: 5,045 ± sf*

1.1.1 RESIDENTIAL USES

The residential portion of the Project involves the construction of a single six-story building with approximately 119 housing units and associated resident amenity space, which is a marginal increase over the 116 unit building approved by the former Boston Redevelopment Authority (BRA), now known as the Boston Planning & Development Agency (BPDA), for the same parcel in 2004. The building volume has decreased, but some units have been reduced in size and reconfigured to increase the total number of units, making the development more economically viable. The Project will provide seven (7) new affordable units.

1.1.2 OPEN SPACE

The Project has been designed to welcome and encourage public access through the Project Site, and to and along the waterfront. The water-facing ground floor of the building will include public work share space with doors and wide windows that open onto a public patio and public waterfront open space. This space has been sited to take full advantage of the Project Site's location and sweeping views of the downtown Boston skyline. In addition, the Project will include the construction of a missing piece of the East Boston Harborwalk along the shoreline, connecting the existing Carlton Wharf and future Clippership Wharf Harborwalk sections to the east with LoPresti Park's Harborwalk and greenspace to the west. See Figure 1-2, Site Plan.

1.2 PROJECT SITE AND NEIGHBORHOOD CONTEXT

The Project Site located at 99 Sumner Street, East Boston is a prime 2.5-acre parcel on Boston Harbor directly adjacent to LoPresti Park, with wide views of the downtown Boston skyline and Charlestown, and is a short walk to Maverick Square and the MBTA Blue Line Station there. The Project Site is bounded by Sumner Street and the Maverick Landing residential development to the north, the Carlton Wharf residential development to the east, Boston Harbor to the south, and LoPresti Park, a City of Boston to the west.

The Project Site was formerly occupied by the Hodge Boiler Works Company, which operated out of three industrial buildings and a timber wharf. All buildings were demolished in spring 2006 and the parcel was cleared to prepare it for redevelopment. See Figure 1-3, Existing Conditions Survey; Figure 1-4, Existing Conditions Photographs Key; and Figures 1-4 and 1-5, Existing Conditions Photos.

Recent revitalization efforts over the past decade in this portion of East Boston have focused on the construction of mixed-use residential properties, improving public open spaces, and establishing a consistent waterfront Harborwalk. The Project Site is now a key missing link on the East Boston waterfront. The Project will provide new housing opportunities, new commercial space available to the public, and new public open space, and will connect existing Harborwalk segments east and west of the Project Site.

1.3 PROJECT BACKGROUND AND PERMITTING HISTORY

The Project Site has been the subject of extensive planning by the City of Boston and redevelopment efforts by other parties prior to the Proponent's purchasing the parcel in March 2015.

1.3.1 EAST BOSTON MASTER PLAN

In 2000, the BRA completed the East Boston Master Plan (the "Plan"). The Plan provides a framework for new growth and development in the community's commercial districts and waterfront area, while preserving and enhancing the quality of life in the community's residential neighborhoods, and is organized around four focus areas:

- reviving the East Boston waterfront
- enhancing neighborhood commercial centers
- strengthening residential neighborhoods
- shoring up the Logan Airport edge

For each focus area, the Plan provides recommendations regarding land use, open space and public environment, historic resources and heritage, and transportation and parking. The Plan also provides development guidance and addresses regulatory issues for each focus area, including critical open space connections and public access and views through the Project Site, which are addressed in the Project's design.

1.3.2 EAST BOSTON MUNICIPAL HARBOR PLAN

To implement many of the provisions of the East Boston Master Plan, the BRA submitted the East Boston Municipal Harbor Plan (the "MHP") for the East Boston waterfront to the Executive Office of Environmental Affairs (EOEA) in 2002. The MHP is a land use plan prepared by the City under the Commonwealth's state-wide statute and licensing regulations for waterfront projects. The MHP is tailored to the characteristics of the East Boston waterfront and reflects the planning goals of the community. To assist in preparing the plan, the BRA convened an Advisory Committee that included a broad range of individuals with interest in and knowledge about waterfront issues in East Boston and the City as a whole. The BRA also coordinated the planning process with state agencies, property owners, developers, and interested community residents. On July 15, 2002, the Secretary of EOEA issued a decision approving the MHP.

The Project Site was specifically analyzed as part of this planning process and the current design complies with the provisions of the plan, as approved by the Secretary's decision (see Chapter 7, Tidelands). The site plan provides the critical open space suggested in the MHP, including an expansive public plaza immediately south of the proposed building and a continuous Harborwalk along the waterfront. This open space also provides a direct visual and physical link to LoPresti Park through the Project Site. The Project will provide a wide sidewalk for the public adjacent to London Street Extension and within the Project Site to enable pedestrians to access the waterfront.

1.3.3 PRIOR PERMITTING

The Project Site was the subject of significant permitting following the approval of the MHP as summarized in Table 1-2.

Table 1-2: Project Permitting History

Agency	Approval	Date Received
BRA	Board Approval (Article 80B)	December 21, 2004
BRA	Adequacy Determination	January 6, 2005
MEPA	ENF Certificate	June 23, 2003
MEPA	DEIR Certificate	December 8, 2003
MEPA	FEIR Certificate	May 14, 2004
MEPA	SFEIR Certificate	February 14, 2005
DEP Waterways	Chapter 91 License	September 28, 2007
BRA	Board Approval (Article 80B) of Revised Project	March 3, 2012

Following the issuance of the Chapter 91 License, the prior developer undertook some site work such as removal of existing buildings, site grading and seeding, and preloading for construction. However, financing for the prior development proposal dried up during the global economic recession, rendering the proposal economically infeasible.

1.4 PROJECT CHANGES SINCE BRA BOARD APPROVAL

The current Project will provide more units, more commercial space, and more extensive public open space than the projects approved by the BRA in 2004 and 2012. The following table compares the development programs.

Table 1-3: Program Comparison

Program Element	Current Project	Previous Project (2012)	Previous Project (2004)
Project Site	2.5 acres (1.5 acres land, 1.0 acres water)	2.5 acres (1.5 acres land, 1.0 acres water)	2.5 acres (1.5 acres land, 1.0 acres water)
Building Size	approximately 125,614 sf	approximately 106,853 sf	approximately 196,633 sf
Building Height	69.9′ maximum (6 stories)	72′ maximum (5 stories)	65′ to 80′ maximum (8 stories)
Residential Uses	119 rental apartment units and approximately 6,000 sf of amenity space	95 rental apartment units	116 condominium units

Program Element	Current Project	Previous Project (2012)	Previous Project (2004)
Commercial Uses	work share space (approximately 7,200 sf)	6 bed and breakfast rooms (3,400 sf); café (576 sf)	8 bed and breakfast rooms (3,680 sf); café (576 sf)
Marina	no marina	42 boat slip marina; marina support building (576 sf)	42 boat slip marina; marina support building (576 sf)
Parking	83 spaces	75 spaces	166 spaces

1.5 PUBLIC AND COMMUNITY BENEFITS

The Project will provide the following public benefits:

- The replacement of a long-vacant property with a contextually-sensitive mixed use residential development that is accessible to public transportation
- The creation of approximately 119 new housing units, including seven (7) new affordable units
- The provision of over 7,200 sf of ground-floor commercial space, intended for work share space
- Between 150 and 200 construction jobs will be generated by the construction of the Project
- Approximately 5 permanent jobs will be generated related to the residential building and approximately 4 permanent jobs related to the work share space, for a total of approximately 9 permanent jobs generated by the operation of the Project
- The generation of significant property tax revenues and expansion of the City's tax base
- The creation of an approximately 240 linear foot missing link in the East Boston Harborwalk
- The creation of approximately 34,500 sf of open space available to the public that will contain trees, lighting, benches, and other landscape elements
- The creation of a Boston Harbor and downtown Boston overlook to encourage pedestrian access to the waterfront

- The inclusion of sustainable design features that will minimize environmental impacts and provide for climate resiliency
- The addition of new residents who will support the continued vitality of the Maverick Square business district and the East Boston neighborhood

1.6 SUMMARY OF REQUIRED PERMITS AND APPROVALS

The following table summarizes expected Project approvals.

Table 1-4: Anticipated Project Approvals

Agency	Approval
Local	
Boston Planning & Development Agency (BPDA)	• Article 80B Large Project Review • Planned Development Area Development Plan and related Boston Zoning Map amendment • Certification of Compliance/Consistency with Article 80B and Article 80C
Boston Civic Design Commission	• Design Review Recommendation
Boston Zoning Commission	• Planned Development Area Development Plan and related Boston Zoning Map amendment
Boston Conservation Commission	• Order of Conditions
Boston Parks and Recreation Commission	• Approval for Construction of a Structure Within 100 Feet of a City Park
Boston Transportation Department	• Transportation Access Plan Agreement • Construction Management Plan
Boston Water and Sewer Commission	• Site Plan and related approvals
Public Improvement Commission	• Approval of Streetscape Improvements • Canopy License
Inspectional Services Department	• Building Permit • Certificate of Occupancy
Committee on Licenses, Public Safety Commission	• Garage Permit • Fuel storage license
State	
MEPA	• Certificate of the Secretary of Energy and Environmental Affairs on Notice of Project Change
Department of Environmental Protection	• Chapter 91 License • Section 401 Water Quality Certification • Construction Notification

Agency	Approval
Federal	
US Army Corps of Engineers	• Section 404 Permit/Pre-Construction Notification
Federal Aviation Administration	• Determination of No Adverse Effect (Building and Crane)
Environmental Protection Agency	• NPDES Construction Dewatering/Stormwater Discharge General Permit

1.7 CONSISTENCY WITH CITY OF BOSTON ZONING

1.7.1 EXISTING ZONING

The Project Site is governed by Article 53 of the Boston Zoning Code, as amended (East Boston Neighborhood District) and is shown on Map 3A/3B of the Boston Zoning Maps. The Project Site is within the Waterfront Commercial Subdistrict, in which industrial and commercial uses are permitted, as is multi-family housing, although the proposed ground floor multi-family apartments are not permitted under the existing zoning regulations. Because a majority of the Project Site is located within Flood Zone AE, the provisions of Article 25 of the Boston Zoning Code (Flood Hazard Districts) are also applicable to the Project Site. See Figure 6-3, FEMA Flood Insurance Rate Map.

The existing dimensional requirements applicable to the Project Site include a maximum Building Height of 55 or as otherwise permitted pursuant to a Development Plan for a Planned Development Area and provided that the Building Height is consistent with the East Boston MHP; a maximum Floor Area Ratio of 1.0, and the requirement that at least 50% of a project site subject to M.G.L. Chapter 91 jurisdiction (such as the Project Site) be comprised of open space. In addition, Section 53-18 of the Code requires a minimum waterfront setback of 35 feet for project sites such as the Project Site that are subject to M.G.L. Chapter 91 jurisdiction.

1.7.2 PROPOSED ZONING

The proposed uses at the Project Site include multi-family housing and uses accessory thereto; office space intended to be used as work-share space; innovation uses; café; parking accessory to the residential uses; and open space. The Project will have a

maximum Building Height of approximately 69.9 feet, and a maximum Floor Area Ratio of approximately 2.1.[1]

Section 53-44 of the Zoning Code authorizes the creation of Planned Development Areas in certain parts of East Boston, including at the Project Site; this zoning approach was also contemplated in the East Boston Municipal Harbor Plan. Contemporaneously with the filing of this NPC, the Proponent is filing with the BPDA, a proposed PDA Plan for the Project Site, which will be subject to public agency and community review and comment concurrently with this NPC. The PDA Plan will be subject to approval of the BPDA, the Boston Zoning Commission, and the Mayor of the City of Boston.

1.8 PROJECT TEAM

The Project team is identified below:

Table 1-5: Project Team

Proponent	TDC Development Group, LLC 125 High Street, 21st Floor Boston, MA 02110 Contact: Stephen Davis Vice President 617-451-1300 sdavis@thedaviscompanies.com
Planning and Permitting	Fort Point Associates, Inc. 31 State Street, 3rd Floor Boston, MA 02109 Contact: Robert Ricchi, AICP, LEED AP Senior Planner 617-357-7044 x209 rricchi@fpa-inc.com

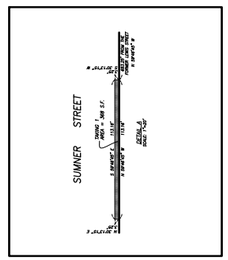
[1] Floor Area Ratio as used in this NPC has been calculated on the Project Site as it will exist after shoreline repairs and improvements are undertaken as part of the Project, which will result in a diminution of the size of the Project Site from 62,988± square feet to 61,183± square feet.

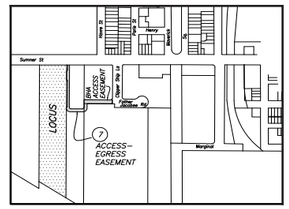
Architecture	CUBE 3 Studio LLC 360 Merrimack Street Building 5, 3rd Floor Lawrence, MA 01843 Contact: Chris Santoro, LEED AP BD+C Project Manager 978-379-8721 csantoro@cube3studio.com Brian O'Connor, AIA BOConnor@Cube3studio.com
Landscape Architecture	Copley Wolff Design Group 160 Boylston Street, 3rd Floor Boston, MA 02116 Contact: Ian Ramey, ASLA, LEED AP Landscape Architect 617-654-9000 iramey@copley-wolff.com John Copley, ASLA Principal JCopley@copley-wolff.com
Legal Counsel	Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. One Financial Center Boston, MA 02111 Contact: Rebecca A. Lee, Esq. Member 617-348-3009 ralee@mintz.com
Transportation	Howard Stein Hudson 11 Beacon Street, Suite 1010 Boston, MA 02108 Contact: Brian Beisel Senior Transportation Engineer 617-348-3357 bbeisel@hshassoc.com

Civil Engineering	Howard Stein Hudson 11 Beacon Street, Suite 1010 Boston, MA 02108 Contact: Rick Latini, PE Manager of Civil Engineering 617-348-3305 rlatini@hshassoc.com
Marine Engineering	Childs Engineering Corporation 34 William Way Bellingham, MA 02109 Contact: David L. Porter, PE 508-966-9092 porterd@childseng.com
MEP and Sustainability	BCS – Building Consultation Services 537 East First Street, Unit C Boston MA 02127 Contact: Robb A. Van Marter, AIA, LEED AP BD+C Principal 617-334-8188 rvm@bcs-mail.com

East Boston, Massachusetts

Figure 1-1
Locus Map
Source: USGS, Fort Point Associates, Inc., 2017





VICINITY MAP NOT TO SCALE

NOTES:

1) BY ELEVATION AND GRAPHIC PLOTTING, THE PARCEL SHOWN HEREON LIES PARTIALLY WITHIN A ZONE "X" (UNSHADED), AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, AND PARTIALLY WITHIN A ZONES AE (BASE ELEVATION 12), AND VE (ELEVATION 13), AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A.) FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR SUFFOLK COUNTY, MASSACHUSETTS, MAP NUMBER 25025C0081J, CITY OF BOSTON COMMUNITY NUMBER 250286, PANEL NUMBER 0081J, HAVING AN EFFECTIVE DATE OF MARCH 16, 2016.

2) ZONING INFORMATION WAS NOT PROVIDED BY THE TITLE INSURER AS REQUIRED BY ITEM 6 (A OR B) OF TABLE "A" IN THE 2011 ALTA SURVEY REQUIREMENTS.

3) THE PROPERTY SHOWN HEREON IS THE SAME PROPERTY DESCRIBED IN THE TITLE COMMITMENT.

4) AT THE TIME OF THE SURVEY, NO EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS WAS OBSERVED.

5) AT THE TIME OF THE SURVEY, NO EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP, OR SANITARY LANDFILL WAS OBSERVED, EXCEPT THE AREA LABELED "GRANITE BLOCKS".

6) ELEVATIONS REFER TO BOSTON CITY BASE.

7) ELEVATIONS ADOPTED FOR MEAN HIGH AND MEAN LOWER WATER AS PUBLISHED FOR BOSTON HARBOR BY THE U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE ON 4-21-2003.

8) TOPOGRAPHY TO ESTABLISH MEAN HIGH WATER AND MEAN LOW WATER WAS OBTAINED ON JANUARY 6, 2017.

9) PARCELS I, II, III (A) & III (B) ARE CONTIGUOUS AND THERE ARE NO GAPS OR GORES BETWEEN THE PARCELS SHOWN HEREON.

10) THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF FELDMAN LAND SURVEYORS ISSUED TO OUR CLIENT FOR PURPOSES RELATED DIRECTLY AND SOLELY TO FELDMAN LAND SURVEYORS' SCOPE OF SERVICES UNDER CONTRACT TO OUR CLIENT FOR THIS PROJECT. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN CONSENT IS PROVIDED BY FELDMAN LAND SURVEYORS.

EXCEPTIONS FROM COVERAGE SCHEDULE B, SECTION 2, LISTED IN TITLE COMMITMENT NO. C24210 ISSUED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF MARCH 13, 2017.

(6) GRANT OF EASEMENT, DATED MAY 31, 2005, RELATING TO THE USE OF THE LONDON STREET EXTENSION SHOWN ON A PLAN, DATED MAY 12, 2005, RECORDED AS PLAN NO. 414 OF 2005. SAID GRANT, DATED MAY 31, 2005, RECORDED IN BOOK 37272, PAGE 286, SAID GRANT IS FURTHER AFFECTED BY A GRANT OF EASEMENT, DATED JUNE 24, 2005, RECORDED IN BOOK 37415, PAGE 329. (SHOWN ON SURVEY)

(7) PROVISIONS OF AN ORDER OF TAKING BY THE BOSTON REDEVELOPMENT AUTHORITY, RECORDED IN BOOK 40246, PAGE 1. SEE PLAN NO. 783 OF 2006. (SHOWN ON SURVEY)

(8) ORDER OF VERTICAL DISCONTINUANCE BY THE PUBLIC IMPROVEMENT COMMISSION OF THE CITY OF BOSTON, DATED AUGUST 17, 2006, RECORDED IN BOOK 41425, PAGE 90. SEE ALSO PLAN NO. 165 OF 2007. (SHOWN ON SURVEY)

(9) LICENSE, MAINTENANCE AND INDEMNIFICATION AGREEMENT WITH THE CITY OF BOSTON, DATED AUGUST 31, 2006, RECORDED IN BOOK 41425, PAGE 93. SEE PLAN NO. 166 OF 2007. (SHOWN ON SURVEY)

(10) REVOCABLE LICENSE NO. 11858 BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, RECORDED IN BOOK 42560, PAGE 296. (AFFECTS ENTIRE LOCUS)

(11) MATTERS SHOWN ON A PLAN OF LAND ENTITLED "PLAN OF LAND #99-111 SUMNER STREET BOSTON (EAST BOSTON), MASS." PREPARED BY HARRY R. FELDMAN, INC., AND DATED JUNE 30, 2011. (NOT PLOTTABLE)

(12) RIPARIAN RIGHTS AND RIGHTS OF NAVIGATION IN SO MUCH OF THE PREMISES AS LIES BELOW THE MEAN HIGH WATER MARK OF THE BOSTON HARBOR. (SHOWN ON SURVEY)

(13) SUCH RIGHTS AS THE COMMONWEALTH OF MASSACHUSETTS MAY HAVE TO CONTROL WHARFING AND FILLING IN SO MUCH OF THE PREMISES AS LIES SEAWARD OF THE HISTORIC HIGH WATER LINE. (SHOWN ON SURVEY)

(14) RIGHTS OF THE UNITED STATES OF AMERICA IN RESPECT TO COMMERCE AND NAVIGATION UNDER THE DOCTRINE OF FEDERAL NAVIGATIONAL SERVITUDE. (SHOWN ON SURVEY)

(15) ORDER OF CONDITIONS BY THE BOSTON CONSERVATION COMMISSION, RECORDED IN BOOK 22641, PAGE 129. (NOT PLOTTABLE)

(16) ORDER OF CONDITIONS BY THE BOSTON CONSERVATION COMMISSION, RECORDED IN BOOK 38826, PAGE 46, AS AFFECTED BY AN EXTENSION PERMIT, RECORDED IN BOOK 44352, PAGE 125. (NOT PLOTTABLE)

BOUNDARY DESCRIPTION PER COMMITMENT NO. C24210 ISSUED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF MARCH 13, 2017.

EXHIBIT "A"

THE LAND, BUILDINGS, WHARVES, DOCK AND FLATS SITUATED AT 99, 109, 111 SUMNER STREET, EAST BOSTON, SUFFOLK COUNTY, MASSACHUSETTS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL I:

A CERTAIN PARCEL OF LAND SITUATED IN THAT PART OF SAID BOSTON CALLED EAST BOSTON BOUNDED AND DESCRIBED AS FOLLOWS TO WIT: BEGINNING AT A POINT ON THE SOUTHWESTERLY SIDE OF SUMNER STREET THIRTY-FIVE (35) FEET DISTANT SOUTHEASTERLY FROM THE POINT WHERE SAID SOUTHWESTERLY LINE OF SUMNER STREET WOULD BE INTERSECTED BY THE CENTRE LINE OF LIVERPOOL STREET PRODUCED AT LAND NOW OR LATE OF LOTHROP. THENCE AT RIGHT ANGLES TO SUMNER STREET AND RUNNING IN A SOUTHWESTERLY DIRECTION BY SAID LAND OF LOTHROP TO LOW WATERMARK OR THE LINE KNOWN AS THE HARBOR COMMISSIONERS LINE OF BOSTON HARBOR. THENCE TURNING AT RIGHT ANGLES AND RUNNING SOUTHEASTERLY BY SAID HARBOR COMMISSIONERS LINE OR LOW WATER MARK EIGHTY-SEVEN (87) FEET MORE OR LESS TO LAND AND FLATS NOW OR FORMERLY OF BROWN & LOVELL, THENCE TURNING AT AN ANGLE AND RUNNING NORTHEASTERLY BY LAND AND FLATS OF SAID BROWN & LOVELL TO SAID SUMNER STREET, THENCE TURNING AT A RIGHT ANGLE AND RUNNING NORTHWESTERLY BY THE SAID SOUTHWESTERLY LINE OF SUMNER STREET SEVENTY-NINE (79) FEET AND ONE (1) INCH TO THE POINT OF THE BEGINNING.

PARCEL II:

THAT LOT OF LAND, WHARF AND FLATS SITUATE IN THAT PART OF SAID BOSTON CALLED EAST BOSTON BOUNDED NORTHEASTERLY ON SUMNER STREET NINETY (90) FEET ELEVEN (11) INCHES SOUTHEASTERLY ON LAND AND FLATS NOW OR FORMERLY OF JESSE TUTTLE TO THE SEA AS FAR AS THE LAW ALLOWS. SOUTHWESTERLY BY A LINE AS FAR SOUTHWESTERLY AS THE LAW ALLOWS NINETY (90) FEET ELEVEN (11) INCHES AND NORTHWESTERLY ON LAND AND FLATS LATE OF LARKIN THORNDIKE BUT NOW OR LATE OF EZRA ALLEN.

TO: DIV SUMNER STREET, LLC, MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C. AND COMMONWEALTH TITLE INSURANCE COMPANY;

THIS IS TO CERTIFY THAT THIS PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 8, 13, 14, 16, 17, 18, 19, AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 3, 2014 AND A SITE INSPECTION WAS CONDUCTED ON MARCH 13, 2017.

FELDMAN LAND SURVEYORS

DRAFT FOR REVIEW

KARL A. MCCARTHY, PLS (MA# 38714) DATE
kam@feldmansurveyors.com

BOUNDARY DESCRIPTION PER COMMITMENT NO. C24210 ISSUED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF MARCH 13, 2017. (CONTINUED)

EXHIBIT "A" (CONTINUED)

PARCEL III:

CERTAIN VERTICAL DISCONTINUANCE PARCELS IN EAST BOSTON, SUFFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS, BOUNDED AND DESCRIBED AS FOLLOWS:

PARCEL A

A CERTAIN PORTION OF SUMNER STREET VERTICALLY ABOVE AND BELOW THE STREET BETWEEN ELEVATIONS 13.75 AND 26.33, BOSTON CITY BASE, SITUATED IN THE CITY OF BOSTON, SUFFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS, COMMENCING AT THE INTERSECTION OF THE SOUTHWESTERLY SIDELINE OF SUMNER STREET WITH THE NORTHWESTERLY SIDELINE OF THE FORMER LEWIS STREET THENCE RUNNING N 59°46'45" W, A DISTANCE OF 683.25 FEET TO THE POINT OF BEGINNING;

THENCE RUNNING ALONG THE SOUTHWESTERLY SIDELINE OF SAID SUMNER STREET N 59°46'45" W, A DISTANCE OF 113.16 FEET TO A POINT;

THENCE TURNING AND RUNNING N 30°13'15" E, A DISTANCE OF 3.25 FEET TO A POINT;

THENCE TURNING AND RUNNING S 59°46'45" E, A DISTANCE OF 113.16 FEET TO A POINT;

THENCE TURNING AND RUNNING S 30°13'15" W, A DISTANCE OF 3.25 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 368 SQUARE FEET AS SHOWN ON A PLAN TITLED," BOSTON REDEVELOPMENT AUTHORITY TAKING PLAN, #101 SUMNER STREET, BOSTON, MASSACHUSETTS, EAST BOSTON DISTRICT", DATED AUGUST 3, 2006, PREPARED BY HARRY R. FELDMAN, INC. LAND SURVEYORS AND RECORDED IN SUFFOLK COUNTY REGISTRY OF DEEDS IN BOOK 2006, PAGE 783.

PARCEL B:

A CERTAIN PORTION OF SUMNER STREET VERTICALLY ABOVE THE STREET BETWEEN ELEVATIONS 57.75 AND 64.75, BOSTON CITY BASE SITUATED IN THE CITY OF BOSTON, SUFFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS, COMMENCING AT THE INTERSECTION OF THE SOUTHWESTERLY SIDELINE OF SUMNER STREET WITH THE NORTHWESTERLY SIDELINE OF THE FORMER LEWIS STREET THENCE RUNNING N 59°46'45" W, A DISTANCE OF 706.25 FEET TO THE POINT OF BEGINNING;

THENCE TURNING AND RUNNING N 59°46'45" W, A DISTANCE OF 67.16 FEET TO A POINT;

THENCE TURNING AND RUNNING N 30°13'15" E, A DISTANCE OF 4.50 FEET TO A POINT;

THENCE TURNING AND RUNNING S 59°46'45" E, A DISTANCE OF 67.16 FEET TO A POINT;

THENCE TURNING AND RUNNING S 30°13'15" W, A DISTANCE OF 4.50 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 302 SQUARE FEET AS SHOWN ON A PLAN TITLED," BOSTON REDEVELOPMENT AUTHORITY TAKING PLAN, #101 SUMNER STREET, BOSTON, MASSACHUSETTS, EAST BOSTON DISTRICT, DATED AUGUST 3, 2006, PREPARED BY HARRY R. FELDMAN, INC. LAND SURVEYORS AND RECORDED IN SUFFOLK COUNTY REGISTRY OF DEEDS IN BOOK 2006, PAGE 783.

REFERENCES:

CITY OF BOSTON ENGINEERING DEPARTMENT
CALC. BOOK 323 PAGE 170
FIELD BOOK 1220 PAGES 121-127
FIELD BOOK 890 PAGES 62-63
FIELD BOOK 751 PAGES 40-45
PLAN K-727

SUFFOLK COUNTY REGISTRY OF DEEDS
BOOK 15143, PAGE 280
PLAN 783 OF 2006

LEGEND

S	SEWER MANHOLE
D	DRAIN MANHOLE
E	ELECTRIC MANHOLE
T	TELEPHONE MANHOLE
GV	GAS SHUT OFF/GAS GATE
WV	WATER SHUT OFF/WATER GATE
	BOLLARD
	HYDRANT
	CATCH BASIN
	UTILITY POLE
	LIGHT POLE
	BOSTON WATER VALVE
	SIGN
	DECIDUOUS TREE
	ELECTIC HANDHOLE
+ GP	GATE POST
	GUY WIRE
	BEAN POLE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
P.O.B.	POINT OF BEGINNING
SQ. FT.	SQUARE FEET
VGC	VERTICAL GRANITE CURB
—x—x—	METAL FENCE

3-16-2017	UPDATED TITLE COMMITMENT

ALTA/NSPS LAND TITLE SURVEY
99-111 SUMNER STREET
BOSTON (EAST BOSTON), MASS.

FELDMAN LAND SURVEYORS
152 HAMPDEN STREET
BOSTON, MASS. 02119
PHONE: (617)357-9740
www.feldmansurveyors.com

MARCH 13, 2017

FELDMAN LAND SURVEYORS

40 0 20 40 80 160

SCALE: 1"=40'

RESEARCH	FIELD CHIEF JA	PROJ MGR KAM	APPROVED	SHEET NO. 1 OF 1
CALC KAM	CADD SCH/MOS	FIELD CHECKED	CRD FILE 14492	JOB NO. 15499

Figure 1-2
Existing Conditions Survey
Source: Feldman Land Surveyors, 2017

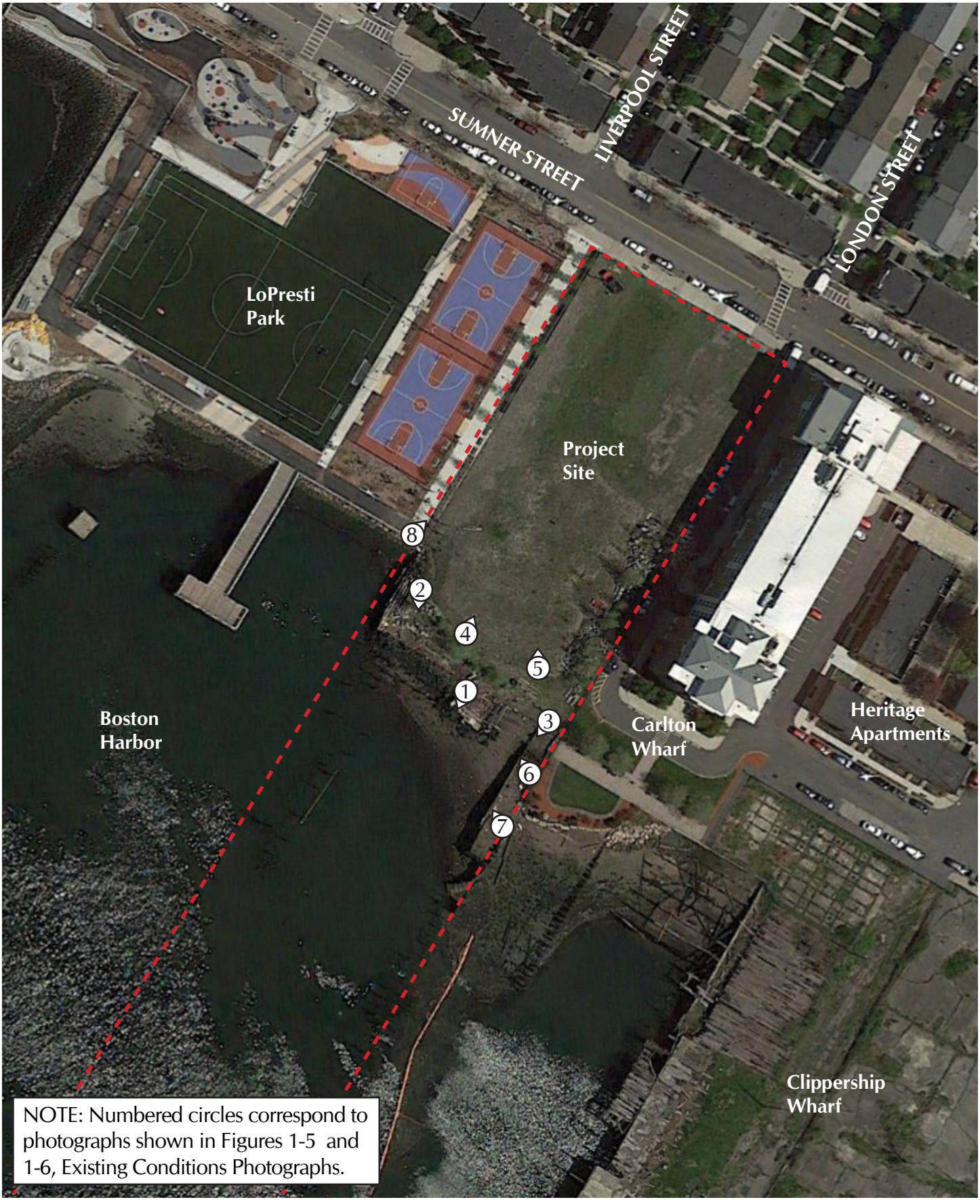


Figure 1-3
Existing Conditions Photographs Key
Source: Fort Point Associates, Inc., 2017

View #1

View #2

View #3

View #4

East Boston, Massachusetts

Figure 1-4

Existing Conditions Photographs

Source: Fort Point Associates, Inc., 2017

View #5

View #6

View #7

View #8

Figure 1-5

Existing Conditions Photographs

Source: Fort Point Associates, Inc., 2017

Chapter 2

URBAN DESIGN

CHAPTER 2: URBAN DESIGN

2.1 INTRODUCTION

The Proponent proposes to transform a vacant waterfront site in East Boston into a pedestrian-friendly, mixed-use development with public open space and a new section of the East Boston Harborwalk, bridging a gap between neighboring properties. The development will include residential units as well as both interior and exterior public spaces that will provide vibrant new connections to the waterfront and spectacular views of downtown Boston.

The Project Site is comprised of approximately 1.5 acres of uplands on Sumner Street in East Boston. The immediate neighborhood is predominantly residential, with limited retail and commercial spaces farther down Sumner Street to the east (small markets and restaurants). To the west of the Project Site is LoPresti Park, a recently renovated City of Boston park that includes basketball courts, a playground, soccer fields, and a portion of the East Boston Harborwalk. See Figure 2-1, Neighborhood Context and Figure 2-2, Site Plan.

In order to properly address these adjacencies and the existing neighborhood context, the planning and design approach for the Project included the following strategies:

- Reinforce the existing neighborhood context along Sumner Street; and
- Establish new public and private connections to existing Harborwalk segments and the City beyond.

2.2 MASSING

The Project includes a single, 'L-shaped' building providing approximately 119 housing units, approximately 83 sub-grade parking spaces, and related amenity space, approximately 7,200 sf of work share space available to the public, and over 34,500 sf outdoor public open space on the waterfront featuring sunny southern exposure, making it an inviting gathering space. The Project will also provide outdoor public amenities along a new section of the East Boston Harborwalk.

The shorter leg of the building, along Sumner Street, will address the existing neighborhood and context. The first and second floors project their mass towards Sumner Street to provide scale continuity with the adjacent residential buildings. These projections turn the corner onto London Street Extension (a private way) in order to maintain proper pedestrian scale along the planned pedestrian sidewalk that will be constructed by the Proponent from Sumner Street to the public open space and Harborwalk beyond. The projections are stopped on Sumner Street by a vertical recess that helps identify an inviting building entry and delineate the vehicular circulation (the sub-grade parking entrance) from the pedestrian circulation.

This leg of the building itself sits back from the property line to provide additional relief for the street and sidewalk from the building edge.

The longer leg of the building will be a grand gesture towards Boston Harbor with architectural features designed to complement the waterfront and public realm. See Figures 2-3 through 2-7, Floor Plans.

2.3 CHARACTER AND MATERIALS

The simplicity with which the massing is addressed will also be applied to the materials and architecture overall. The two main massing elements will be varied in material in texture, but complementary of each other and responsive to the greater context of the neighborhood.

The lower floors will be light, warm, and glassy to reinforce the pedestrian experience and complement the landscape. The upper residential floors will be simple, clean, and more solid with punched windows and additional recessed verticals that hint at the interior building connections. The upper floors of the longer leg will provide a pop of color with its material to frame LoPresti Park. See Figures 2-8 through 2-11, Elevations; Figures 2-12 through 2-16, Views; and Figures 2-17 through 2-22 Perspectives.

2.4 LANDSCAPE AND OPEN SPACE

2.4.1 PUBLIC OPEN SPACE AND SITE CONNECTIVITY

The Project's landscape and open space design includes approximately 34, 500 sf of publicly accessible open space (approximately 57% of the overall parcel area). The public sidewalk along Sumner Street will be reconstructed to have a minimum 10 foot width, including a three foot wide furnishing and tree planting zone at the back of curb. The site design also features pedestrian and bicycle circulation routes across the Project Site on the eastern edge that will connect the public sidewalk on Sumner Street with the new Harborwalk section. The accessible route will be a minimum of eight feet wide and will be shaded by canopy trees. Central to the Project, an elevated landscaped courtyard will be accessible to the public from the eastern and southern sides. The courtyard will include small and medium sized gathering spaces, fixed and movable seating, ornamental plantings, a pergola, and an overlook promontory with an historic interpretive element. See Figure 2-23, Landscape Design.

2.4.2 HARBORWALK

A central component of the public open space design is the Harborwalk, a broad water's edge walkway that will provide a critical missing link in the East Boston Harborwalk network. The Harborwalk will be a minimum of 12 feet wide and will tie into the existing Harborwalk at Carlton Wharf and the future Harborwalk at Clippership Wharf to the east and LoPresti Park to the west. Once completed, the

Project's Harborwalk will link with a contiguous stretch of publically accessible waterfront that runs between the Eddy East Boston residential development on New Street to Piers Park, a stretch of approximately 1.75 miles. See Figure 2-24, East Boston Harborwalk Context.

2.4.3 RESIDENTIAL AMENITIES

In addition to the publicly accessible open space, residents will have access to approximately 5,045 sf of private open space at the elevated courtyard level. A wide range of outdoor amenities will be provided and may include grilling areas, fitness and wellness spaces, lounge areas, and small, programmable function spaces immediately adjacent and accessible to the public area.

2.4.4 PROJECT SITE LIGHTING AND WAY-FINDING

Project Site lighting will be comprised of pedestrian scaled pole top and bollard light fixtures selected to eliminate light trespass on adjacent properties, minimize light pollution, and promote energy conservation while treating the fixtures as an integral part of the site furnishing family. The project may also include light poles and other modern lighting options. The Project will be designed in accordance with the developing East Boston Harborwalk Signage Master Plan, which seeks to organize and standardize the system of way finding and identification of the Harborwalk.

2.4.5 PLANTING DESIGN AND COASTAL RESILIENCY

Plant materials for the Project will be comprised of native and adapted coastal species that can thrive in an exposed marine environment. Plants will be drought tolerant species once established. The Harborwalk edge of the Project will include heavily planted mounds that make up the grade change between the elevated courtyard level and the harborwalk and will serve to buffer the impacts of coastal flooding and storm surges. The shoreline design includes a collaborative effort between marine engineering and landscape design. Granite seawall blocks salvaged from onsite will be repurposed to fortify the dilapidated coastal riprap bank but placed in such a manner to create small pockets of littoral zone plantings intended to create a partial living shoreline, which will connect with the living shoreline at the Clippership Wharf development to the east. The Harborwalk will be surfaced with permeable crushed stone to decrease stormwater run-off and to integrate with similar materials at LoPresti Park.

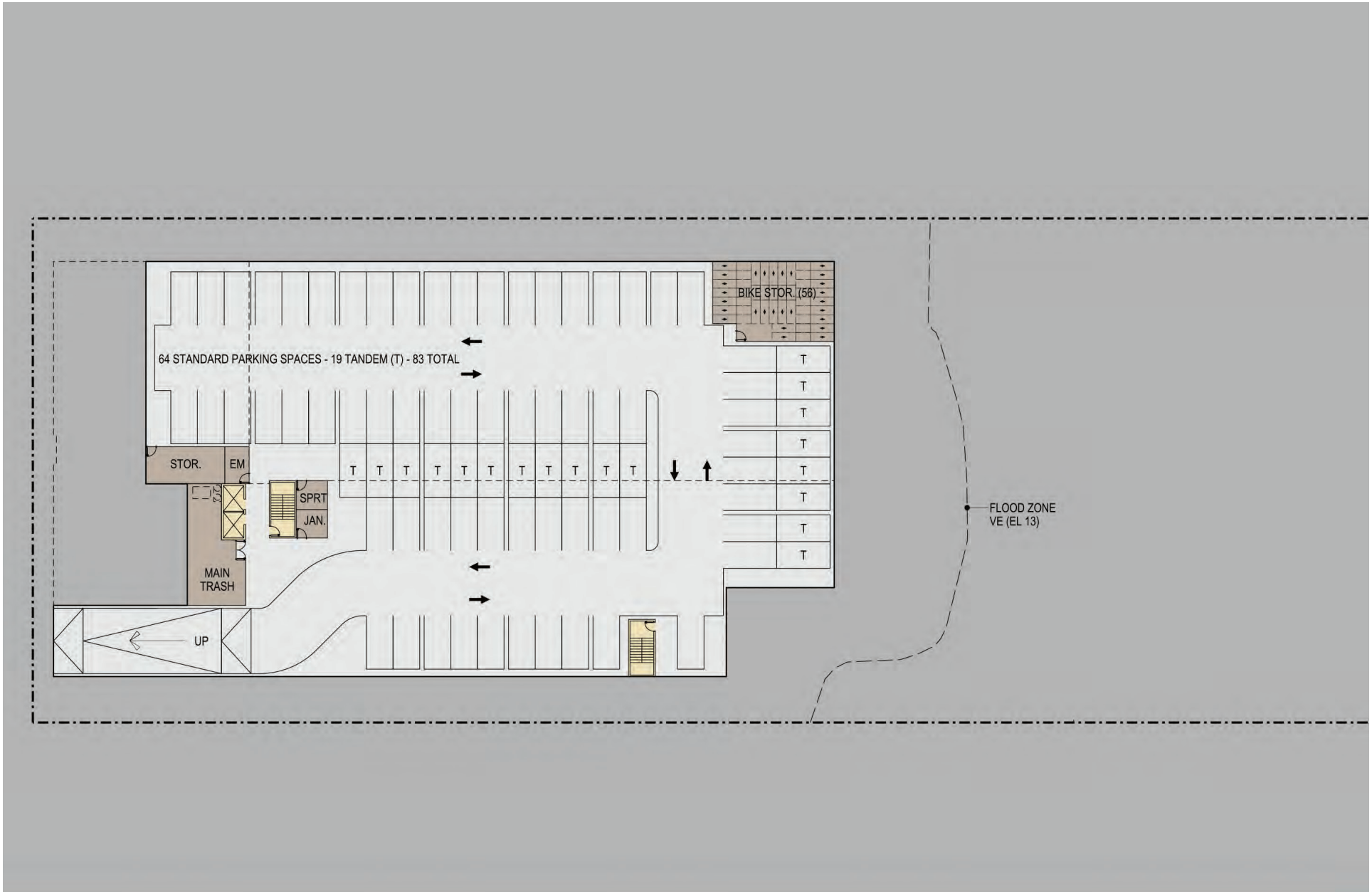
2.5 VEHICULAR CIRCULATION AND PEDESTRIAN ENVIRONMENT

Vehicular circulation will be predominantly along Sumner Street, where there will be direct access to the sub-grade parking level via a two-way ramp. A pedestrian path along London Street Extension private way will connect Sumner Street to the public open space and Harborwalk. These areas will be enhanced with landscaping, lighting, and building architectural gestures. See Figure 2-25 Traffic and Circulation Plan.

East Boston, Massachusetts

Figure 2-1
Neighborhood Context
Source: Cube 3 Studio, 2017

Figure 2-2
Site Plan
Source: Copley Wolff Design Group, 2017



East Boston, Massachusetts

Figure 2-3
Sub-Grade Parking Floor Plan
Source: Cube 3 Studio, 2017

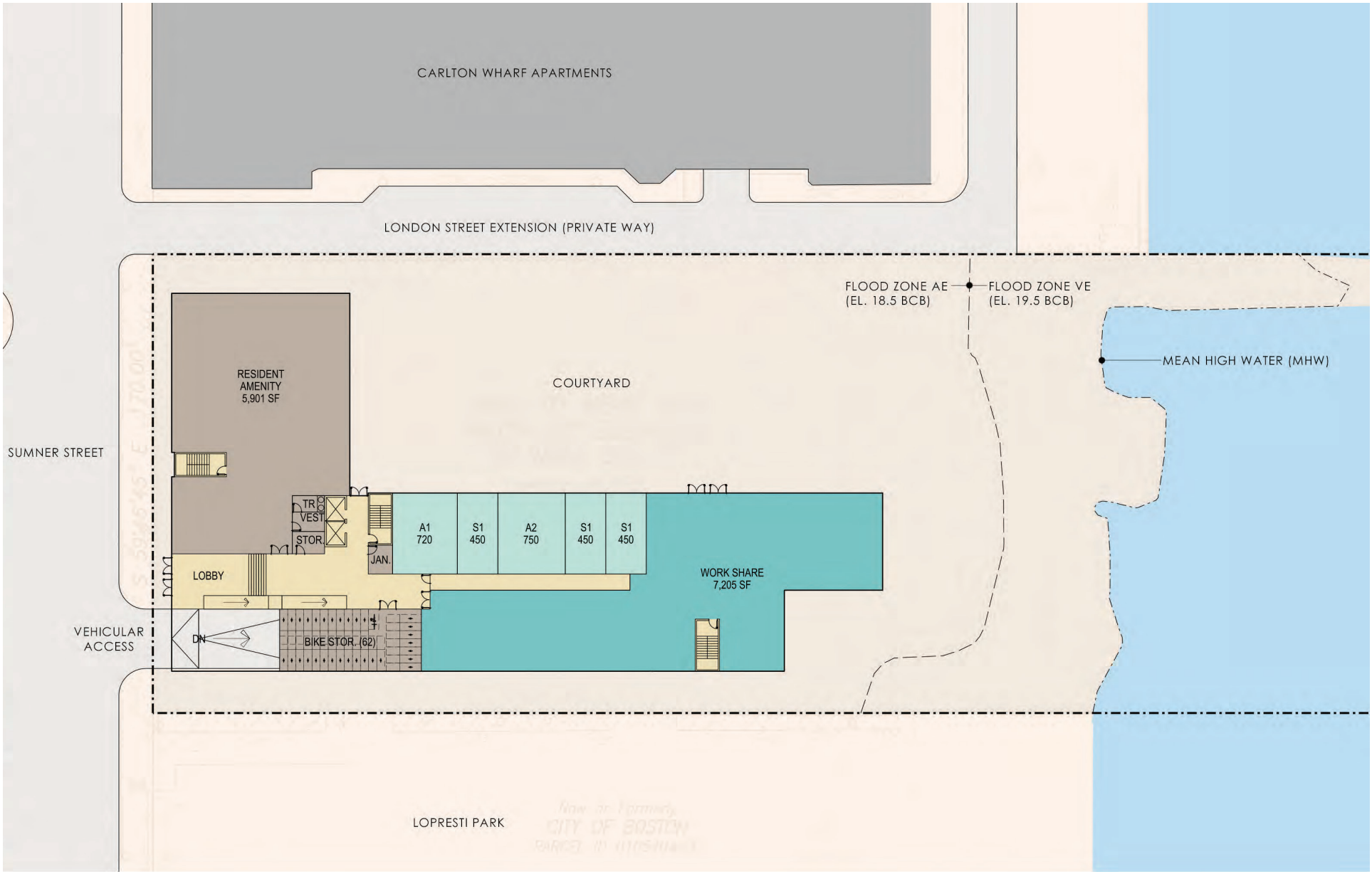


Figure 2-4
Ground Floor Plan
Source: Cube 3 Studio, 2017

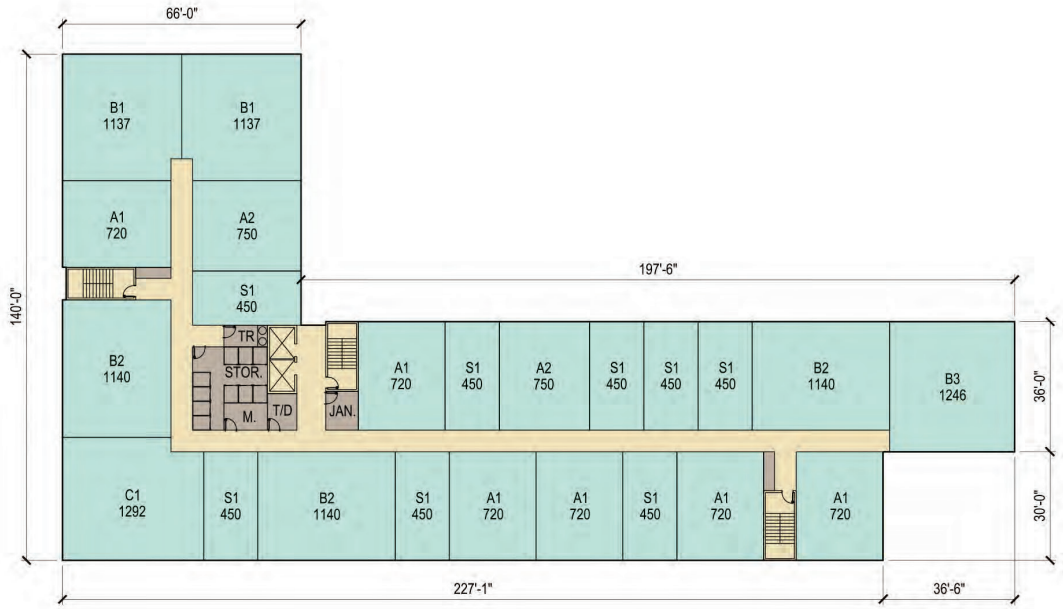


Figure 2-5
Typical Floor Plan (Second-Fifth Floors)
Source: Cube 3 Studio, 2017

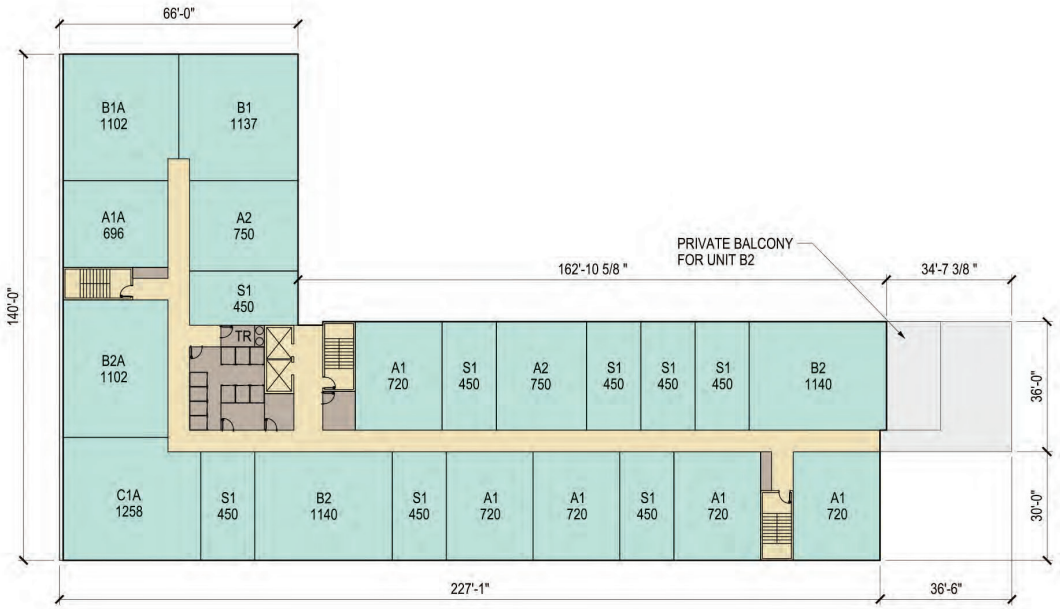


Figure 2-6
Sixth Floor Plan
Source: Cube 3 Studio, 2017

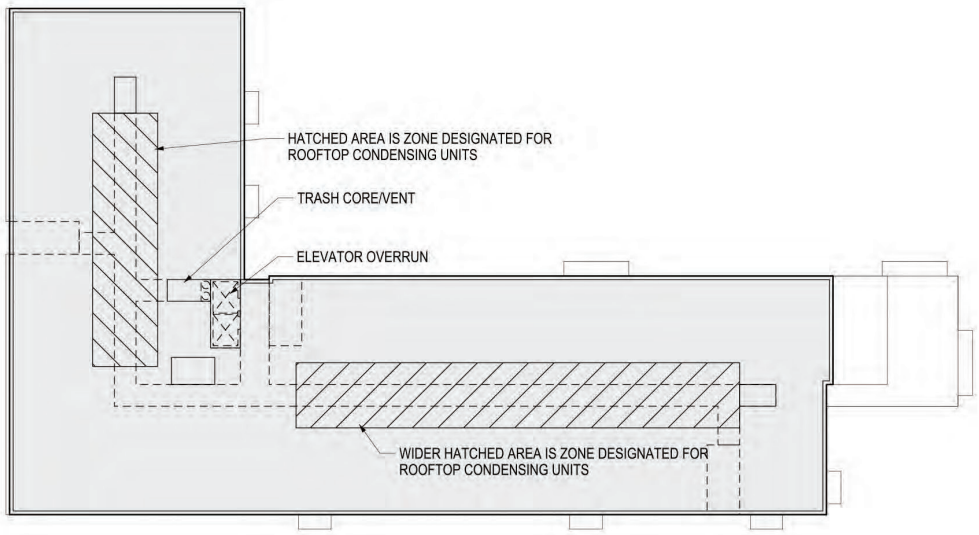


Figure 2-7
Roof Plan
Source: Cube 3 Studio, 2017

East Boston, Massachusetts

Figure 2-8
Harbor Elevation
Source: Cube 3 Studio, 2017

Figure 2-9
London Street Extension Elevation
Source: Cube 3 Studio, 2017

Figure 2-10
LoPresti Elevation
Source: Cube 3 Studio, 2017

East Boston, Massachusetts

Figure 2-11
Sumner Street Elevation
Source: Cube 3 Studio, 2017

East Boston, Massachusetts

Figure 2-12
View from Sumner Street Looking East
Source: Cube 3 Studio, 2017

Figure 2-13
View from London Street Looking South
Source: Cube 3 Studio, 2017

Figure 2-14
View from Sumner Street Looking West
Source: Cube 3 Studio, 2017

Figure 2-15
View from Carlton Wharf
Source: Cube 3 Studio, 2017

Figure 2-16
View from LoPresti Park
Source: Cube 3 Studio, 2017

Figure 2-17
Carlton Wharf Perspective
Source: Cube 3 Studio, Copley Wolff Design Group, 2017

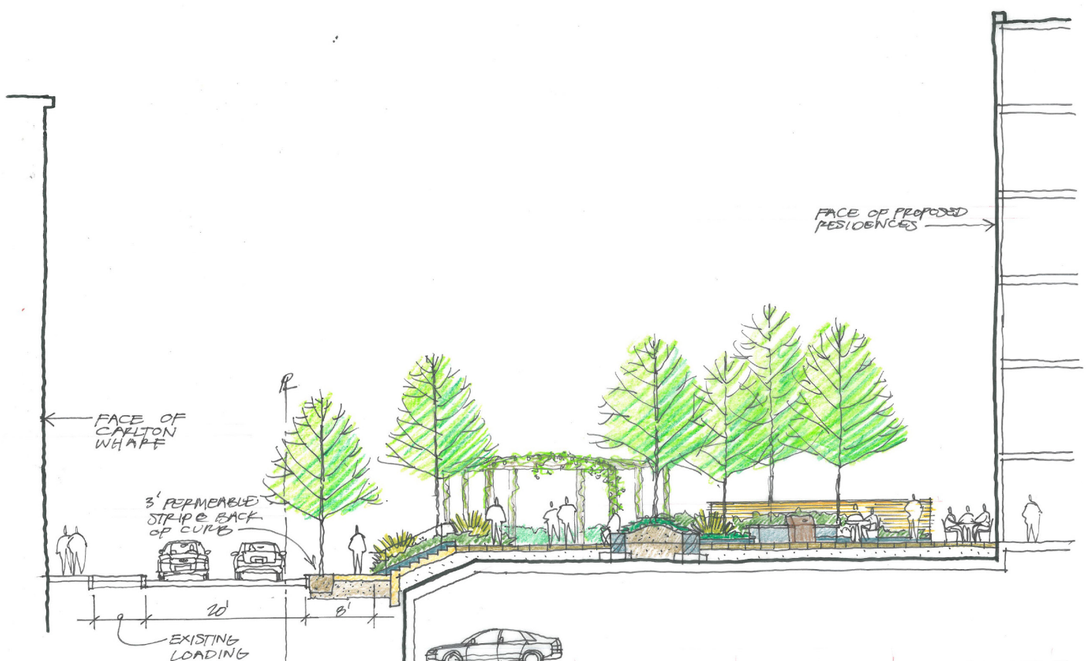
Figure 2-18
Courtyard Perspective
Source: Cube 3 Studio, Copley Wolff Design Group, 2017

Figure 2-19
Harbor Perspective
Source: Cube 3 Studio, Copley Wolff Design Group, 2017

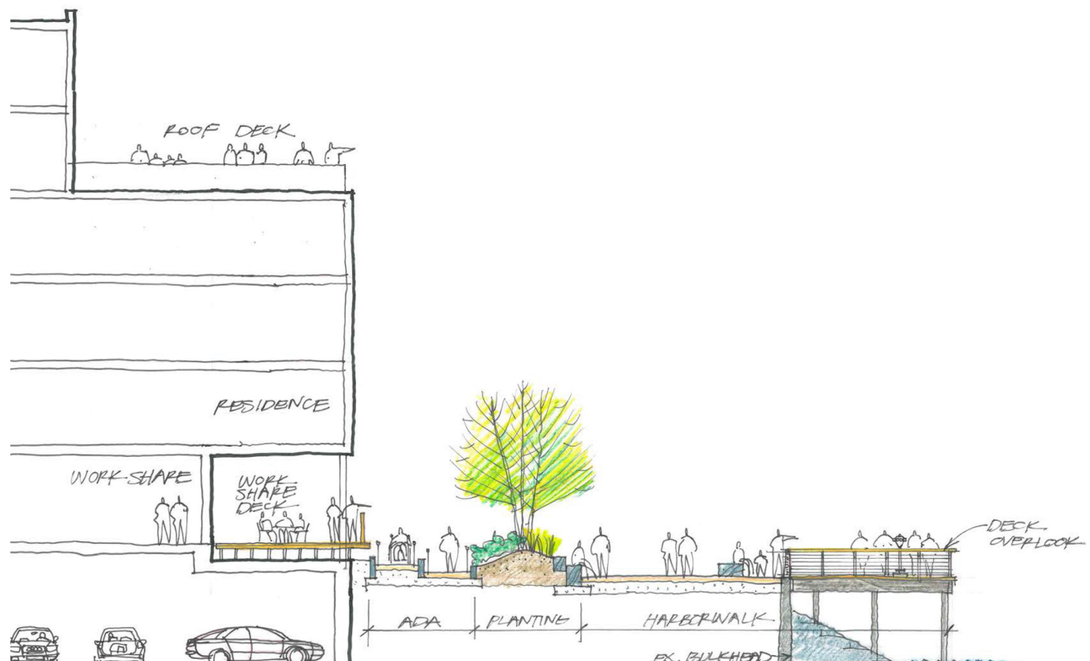
East Boston, Massachusetts

Figure 2-20
LoPresti Park Perspective
Source: Cube 3 Studio, Copley Wolff Design Group, 2017

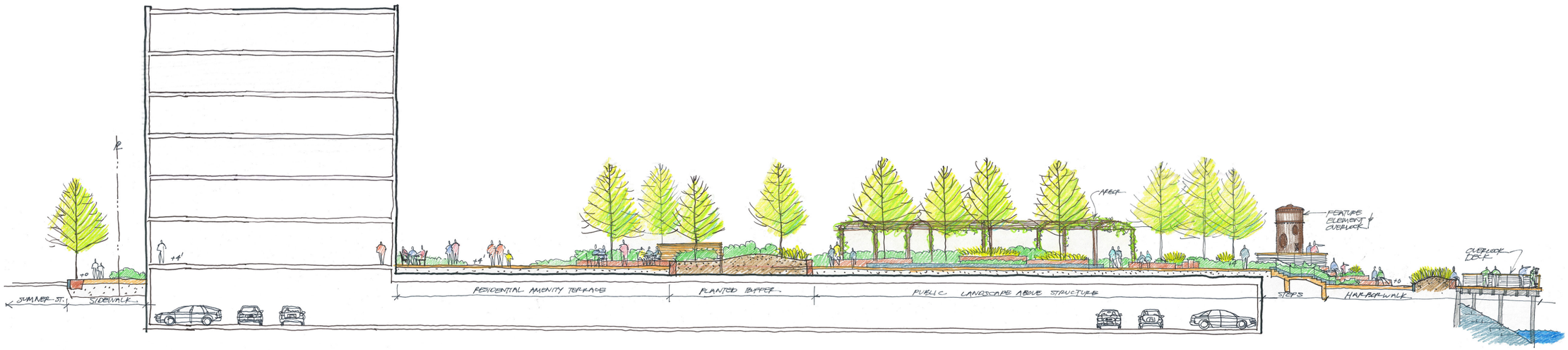
Figure 2-21
London Street Extension Elevation
Source: Cube 3 Studio, Copley Wolff Design Group, 2017



Ⓐ Section through London Street Ext. showing widened road, 8' wide public access and landscape above garage



Ⓑ Section through workshare deck, accesisble rmap and harbor walk



Ⓒ Section through Sumner Street sidewalk, landscape above garage and harborwalk with overlook deck

Figure 2-22

Landscape Design

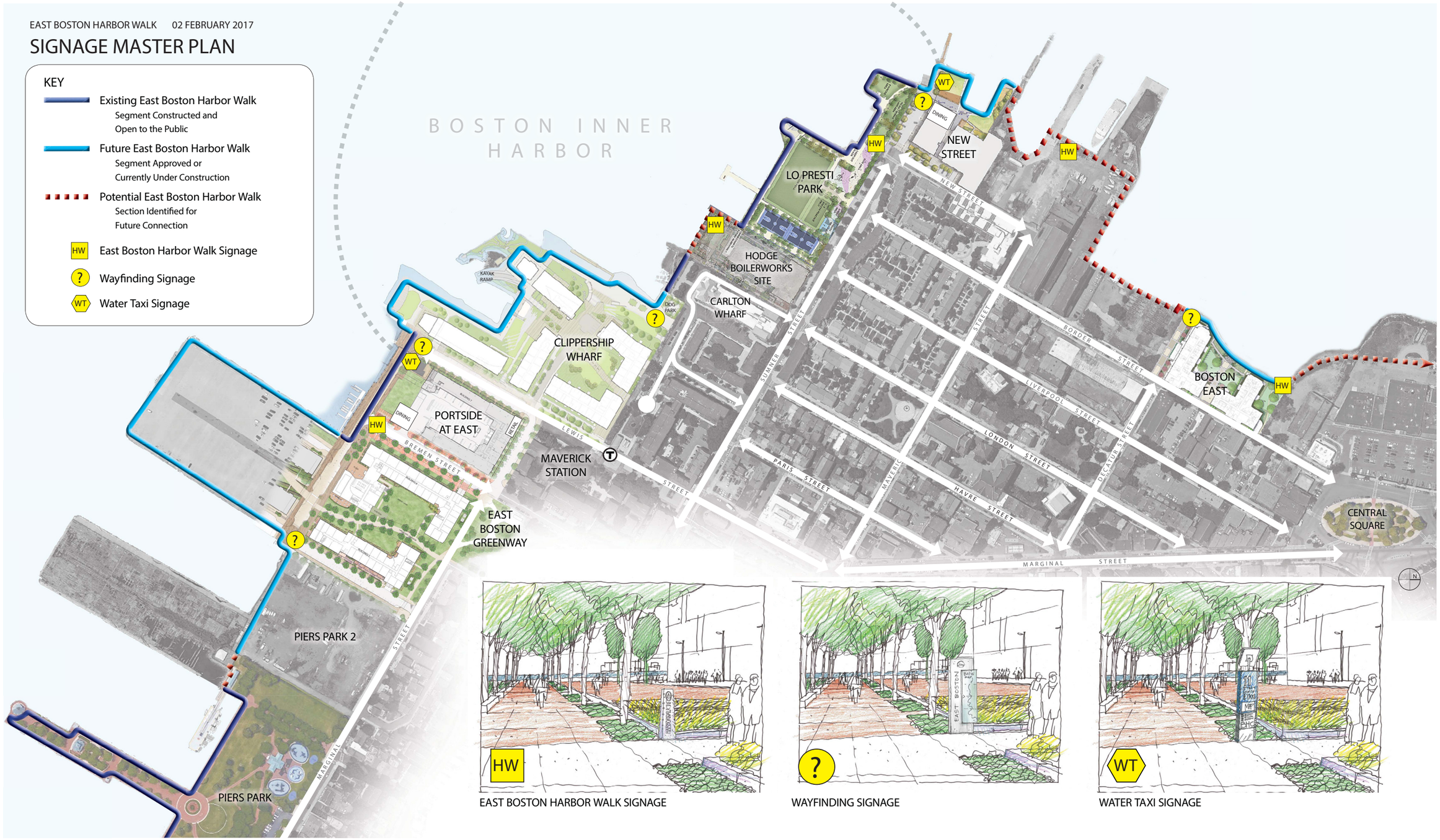
Source: Copley Wolff Design Group, 2017

EAST BOSTON HARBOR WALK 02 FEBRUARY 2017

SIGNAGE MASTER PLAN

KEY

- Existing East Boston Harbor Walk
  Segment Constructed and Open to the Public
- Future East Boston Harbor Walk
  Segment Approved or Currently Under Construction
- Potential East Boston Harbor Walk
  Section Identified for Future Connection
- HW East Boston Harbor Walk Signage
- ? Wayfinding Signage
- WT Water Taxi Signage



EAST BOSTON HARBOR WALK SIGNAGE

WAYFINDING SIGNAGE

WATER TAXI SIGNAGE

Figure 2-23
East Boston Harborwalk Context
Source: Copley Wolff Design Group, 2017

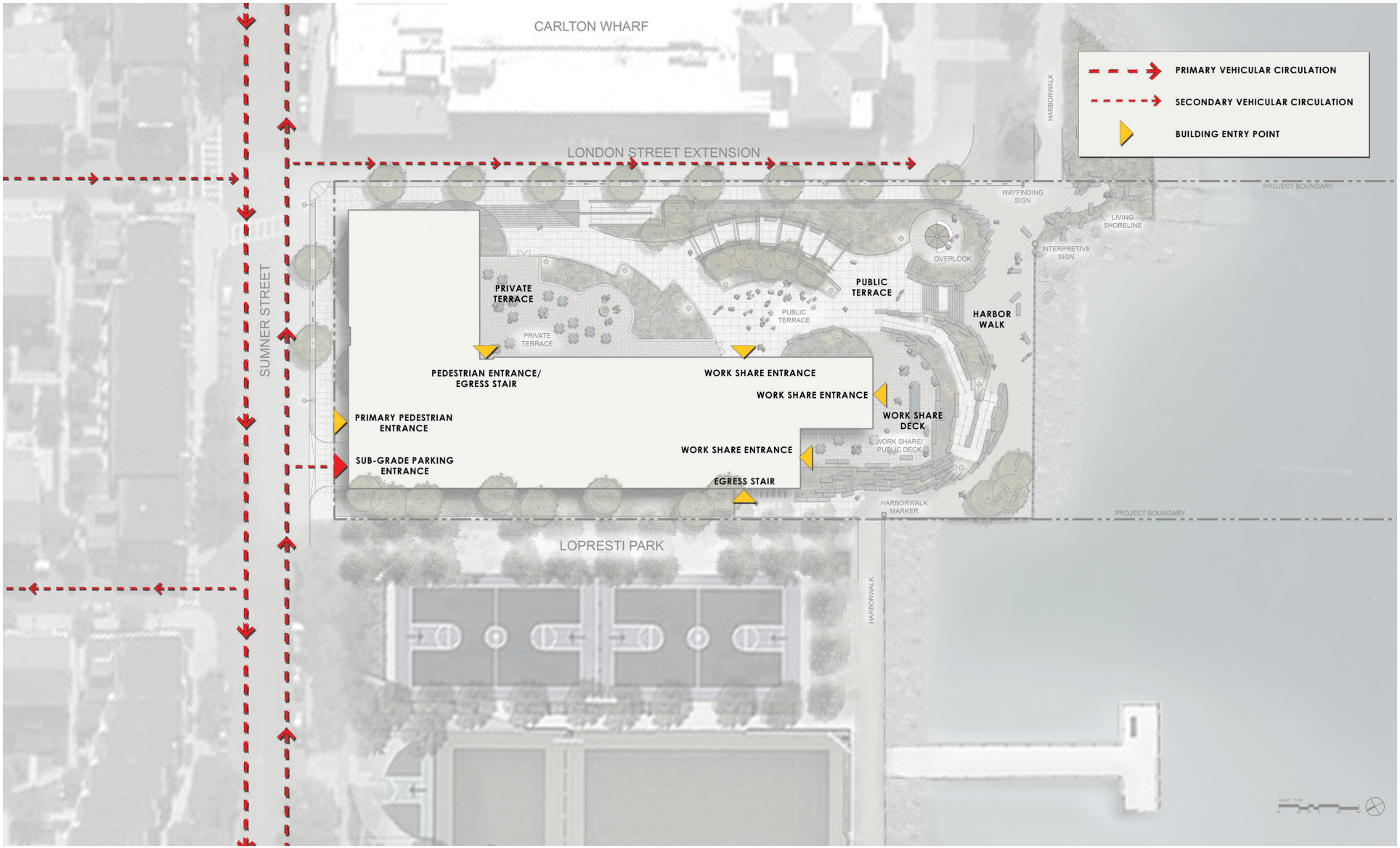


Figure 2-24
Traffic and Circulation Plan
Source: Cube 3 Studio, 2017

Chapter 3

SUSTAINABLE DESIGN

CHAPTER 3: SUSTAINABLE DESIGN

3.1 INTRODUCTION

The Project will achieve compliance with the City of Boston's Article 37 Green Building standards. The Proponent anticipates that the Project will also be Certifiable at a minimum of Leadership in Energy and Environmental Design ("LEED") Silver level by demonstrating compliance with all of the prerequisites and at least 50 credit points under the LEED v4 Building Design and Construction (BD+C) for New Construction System.

3.2 LEED/ARTICLE 37 COMPLIANCE

The Proponent has selected a site that supports public transportation and bicycle uses in a neighborhood with a wide range of uses that has been previously developed. Additionally, the Proponent has selected a Project Team that will use an Integrative Design Process Project and will employ strategies in the design for the responsible use of resources, including energy, water, and materials, while providing a healthy and comfortable environment for building occupants. Article 37 of the Boston Zoning Code requires that projects that are subject to Article 80B (Large Project Review) be LEED certifiable. The Project will use the LEED BD+C for New Construction v4 rating system to demonstrate Article 37 compliance. The LEED rating system tracks the sustainable features of the Project by assigning points in the following categories: Location and Transportation (LT); Sustainable Sites (SS); Water Efficiency (WE); Energy & Atmosphere (EA); Materials and Resources (MR); Indoor Environmental Quality (IEQ); Innovation & Design (ID); and Regional Priority (RP) credits.

Major sustainable design elements of the overall Project include:

- Redevelopment of a currently under-utilized transit-oriented site. The Project is in an urban area close to public transportation. The new residential building will be located near public transportation on the MBTA's Maverick Station Blue Line. Additionally, a number of bus stops and lines are nearby, and there is a network of bicycle routes. All of these features encourage minimal vehicle use.

- The Project will encourage public transportation, bicycle, and pedestrian activity. The use of vehicles at this site is expected to be minimal compared to the public transportation and pedestrian trips. Other transportation related characteristics include:

    - Covered bicycle parking will be included for residents. Exterior bicycle racks will be located adjacent to the primary building entrances for short-term use by the public, visitors, or residents.

- Electrical car charging stations and preferred efficient vehicle parking will be provided in the below-grade parking garage.

- Mechanical Systems:
  - No CFCs or HCFCs will be used in cooling equipment.
  - The Project will include energy efficient equipment and appropriate insulation.
  - High efficiency lighting with occupancy sensors or functional equivalent will be incorporated where suitable.

- Residential Units:
  - ENERGY STAR appliances, lighting, and low-flow fixtures or functional equivalent will be installed in the residential units.
  - Operable and high-quality insulated glass or functional equivalent will allow residents to control air movement within the units.
  - All energy and water use will be metered separately for each unit.

3.3 LEED CREDIT NARRATIVE

The following is a credit-by-credit analysis of the Project Team's approach for achieving certifiability under LEED-BD+C NC v4 at the Silver level. See Figure 3-1, LEED Checklist.

3.3.1 LOCATION AND TRANSPORTATION – (10) POINTS

Sensitive Land Protection: The Project is located on land that has been previously developed.

Surrounding Density and Diverse Uses: The Project main building is within a ½-mile walking distance to more than 8 existing publicly available diverse uses. Those uses include:

- Public Facilities: Paris Street Pool
- Fitness Centers: Cross Fit Jeffries
- Public Parks: Lombardi Memorial Park, LoPresti Park
- Restaurants: D'Parma Restaurant, Cancun

- Community Facility: Cross Roads Family Shelter, Most Holy Redeemer Church, Post Office, Bunker Hill Community College, East Boston Neighborhood Health Center
- Services: Eastern Savings Bank, Bank of America
- Community Retail: Calderon Market

Access to Quality Transit: The Project is located within 1/3 mile of the MBTA Maverick T-stop with access to rail transit for the Blue Line as well as 5 bus lines. There are 354 weekday trips on the Blue Line alone.

Bicycle Facilities: The Project will provide approximately 119 bicycle storage spaces within the building for residents and at least 14 exterior bicycle racks around the Project Site, which will store a total of 28 bikes, for short-term storage for resident, visitor, and public use. The Project Site has access to a bicycle network with direct connection to more than 10 diverse uses within 3 miles.

Green Vehicles: 4 spaces, or 5% of all parking in the project will be designated as preferred parking for green vehicles and 2, or 2% of all parking in the Project, electric vehicle charging stations will be provided.

3.3.2 SUSTAINABLE SITES – (6) POINTS

Construction Activity Pollution Prevention: An Erosion and Sedimentation Control Plan will be established to control erosion, waterway sedimentation, and airborne dust generation during construction, conforming to local codes and the EPA Construction General Permit (Phase I and Phase II) of the National Pollutant Discharge Elimination System Program (NPDES).

Site Assessment: The Proponent will complete and document a site survey that will include topography, hydrology, climate, vegetation, soils, human use, and human health effects to demonstrate the relationships between the site features and how this influenced the Project design.

Open Space: The Project will include outdoor space that is at least 30% of the total site area, 25% of which will be vegetated. The space is connected to the Boston Harborwalk park system.

Rainwater Management: The Project will manage on-site stormwater for the 95th percentile of the regional rainfall events using low-impact and green strategies, such as bio-retention, permeable pavement, vegetated roofs, and other integrated systems.

Heat Island Reduction: The Project will provide structured parking for all of the intended spaces under the residential building and courtyard amenity areas where vegetation is intended.

Light Pollution Reduction: The Proponent will design the exterior lighting systems to minimize light trespass and uplighting.

3.3.3 WATER EFFICIENCY – (5) POINTS

Outdoor Water Use Reduction: The Project will employ strategies, including appropriate plant material and irrigation design efficiencies, that, in aggregate, use 50% less water for irrigation than the water use baseline calculated for the Project Site's peak watering month.

Indoor Water Use Reduction: The Project will include water use reduction fixtures that are anticipated to achieve a 30% savings from the calculated baseline. Such fixtures include dual flush toilets and low-flow residential faucets and shower heads.

Building Level Water Metering: The Project will include permanent water meters to monitor all water use within the building. Additionally, irrigation and each residential unit, at a minimum, will be metered; enabling individual consumption characteristics to be monitored and reported, if desired.

3.3.4 ENERGY AND ATMOSPHERE – (15) POINTS

Fundamental and Enhanced Commissioning and Verification: Commissioning process activities will be completed for the following energy related systems, at a minimum:

- Heating, ventilating, air conditioning, and refrigeration (HVAC&R) systems (mechanical and passive) and associated controls;
- Lighting and daylighting controls;
- Domestic hot water systems; and
- Renewable Energy Systems (wind, solar, etc.)

Additionally, the Commissioning Agent will review contractor submittals; verify systems manuals, operator training, manual updates, and occupant training; verify seasonal testing, conduct a post-construction building operations review 10 months after substantial completion, and develop and on-going commissioning plan for building operations.

Minimum Energy and Optimized Energy Performance: The Project intends to use a computer simulation model to assess the energy performance and identify the most cost- effective energy efficiency measures.

Through Whole Building Energy Simulation, the Proponent will demonstrate approximately 24% improvement in the proposed building performance rating, compared with the baseline building performance rating. The baseline building performance rating will be calculated according to Appendix G of ASHRAE 90.1-2010 using a computer simulation model for the whole building project. For this Project, Option One is the eligible path.

The proposed design is intended to meet the following criteria:

- Comply with mandatory provisions of ANSI/ASHRAE/IESNA Standard 90.1- 2010.
- All energy costs associated with the building project will be included.
- Compare against a baseline building that complies with Appendix G of St. 90.1- 2010.

Building Level Energy Metering: The Project intends to install utility-provided energy meters for all energy consumption. Presently, energy sources include natural gas and electricity.

Fundamental Refrigerant Management: It is the intent of the Project to use zero CFC based refrigerants in the new base building heating, ventilating, and air conditioning and refrigeration systems.

Renewable Energy Production: The Project intends to have installed a roof-top photovoltaic array.

Green Power and Carbon Offsets: The Project intends to contract with a qualified resource to provide 50% of the Project total energy from green power, carbon offsets, or renewable energy certificates for a period of at least 5 years.

3.3.5 MATERIALS AND RESOURCES – (6) POINTS

Storage and Collection of Recyclables: An easily accessible area will be provided for the collection and storage of materials for recycling for the entire building. Materials will include paper, corrugated cardboard, glass, plastics, and metals.

Construction and Demolition Waste Management Planning: The construction team intends to institute a Construction and Demolition Waste Management Plan, including investigation of local options for waste diversion and documentation of

diversion rate for construction waste. The team intends to divert at least 50% in at least 3 material streams.

Building Product Disclosure and Optimization – Environmental Product Declarations: The Project intends to use at least 20 different and permanently installed products sourced from at least five different manufacturers that meet life-cycle assessment, environmental product declaration, and/or USGBC approved environmental product approved declaration parameters.

Building Product Disclosure and Optimization – Source of Raw Materials: The Project intends to use at least 20 different and permanently installed products from at least five different manufacturers that meet product source and extraction guidelines and parameters.

Building Product Disclosure and Optimization – Material Ingredients: The Project intends to use at least 20 different and permanently installed products from at least five different manufacturers that meet chemical inventory criteria from guidelines provided by GreenScreen, Declare, Cradle to Cradle, ANSI/BIFMA e3 Standard, or others.

3.3.6 INDOOR ENVIRONMENTAL QUALITY (7) POINTS (4) MAYBE

Minimum Indoor Air Quality Performance: The Project will meet the minimum requirements of Sections 4 through 7 of ASHRAE Standard 62.1-2010 for those spaces intended for mechanical ventilation and the applicable sections of the same standard for naturally ventilated spaces unless local code requirements are more stringent.

Environmental Tobacco Smoke (ETS) Control: It is the intent of the Project to prohibit smoking inside the building and outside the building within 25 feet of entries, air intakes, and windows. Signage will be included in the building signage design that will indicate the building smoking policy. Additionally, these prohibitions will be communicated in the tenant handbook and lease.

Enhanced Indoor Air Quality Strategies: The Project intends to improve indoor air quality to promote occupant comfort and other concerns by installing permanent entryway systems; exhaust garages; housekeeping areas to create a condition of negative pressure as permitted or required; outdoor ventilation systems will be filtered with media rated at MERV 13 or higher. Additionally, natural ventilation and mixed-mode design standards will be demonstrated for compliance with CIBSE Applications Manual AM10, March 2005, Natural Ventilation in Non-Domestic Buildings, Section 2.4 and CIBSE Applications Manual 13-2000, Mixed Mode Ventilation, respectively.

Low- Emitting Materials: The Project intends to comply with emissions standards for VOC content in paint, flooring, and adhesives and sealants.

Construction Indoor Air Quality Management Plan: The Project intends to develop and implement an indoor air quality (IAQ) management plan for the construction and preoccupancy phases of the building that will meet or exceed the SMACNA IAQ Guidelines for Occupied Buildings under Construction, 2nd edition, 2007, ANSI/SMACNA 008–2008, Chapter 3; will protect absorptive materials stored on-site and installed from moisture damage; will protect permanently installed air-handling equipment during construction when operated with filtration media rated a minimum of MERV 8, as determined by ASHRAE 52.2–2007; and immediately before occupancy, replace all filtration media with the final design filtration media, installed in accordance with the manufacturer's recommendations.

Thermal Comfort: All housing units will be provided with individual heating and cooling equipment that can be controlled by residents. The HVAC and building envelope design is intended to meet the requirements of ASHRAEA Standard 55-2010, Thermal Comfort for Human Occupancy, with errata.

Interior Lighting: The Project is designed to comply with the standard by providing individual lighting controls for at least 90% of the occupant spaces and the required criteria for all shared multi-occupant spaces, such as location of switches and controls in the same spaces as the light source, and adjustability in group settings.

Quality Views: The Project intends to provide a direct line of sight to the exterior via glazing for building occupants in 75% of all regularly occupied floor areas with the possibility for views to multiple lines of site in different directions at least 90 degrees apart; views that include sky, movement, and/or object at least 25 feet from the exterior glazing, or other parameters.

Acoustic Performance: The Project intends to implement acoustic performance standards that include reduced HVAC background noise levels per 2011 ASHRAE Handbook, HVAC Applications, Chapter 48, Table 1 or other applicable standards, and by providing residential tenant to tenant demising wall STC ratings of 55, tenant to corridor wall STC ratings of 50, and mechanical room wall STC ratings of 60. Additionally, reverberation rates in the residential areas will be intended to be less than 0.6 at the applicable unit of frequency.

3.3.7 INNOVATION IN DESIGN (4) POINTS

Innovation – Access to Quality Transit: Given the Project's location and its proximity to a major MBTA Blue Line mass transit station, it is anticipated that doubling the daily weekend and weekday transit trip thresholds will be possible making an innovation point possible.

LEED Accredited Professional: A LEED Accredited Professional credentialed in Building Design and Construction (BD+C) is anticipated to be part of the team.

3.3.8 REGIONAL PRIORITY – (3) POINTS

Optimize Energy Performance: The minimum threshold to achieve a Regional Priority Credit in this category is 8. This Project intends to meet that minimum threshold.

Rainwater Management: With the successful achievement of this credit, a Regional Priority credit is anticipated.

Renewable Energy Production: With the successful achievement of this credit, a Regional Priority credit is anticipated.

3.4 CLIMATE CHANGE RESILIENCY

In December 2016, the BPDA released a comprehensive study report ("Climate Ready Boston") that identified East Boston as having the most land area of all Boston neighborhoods that is exposed to coastal storms in the coming decades. As a result, the Project Team has worked to design the Project with resiliency to future climate change impacts in mind.

In order to address climate resiliency concerns, the Project Site will be regraded to raise the grade above the current flood plain level by approximately four feet. In addition, mechanical equipment for the Project will be located in one or more utility rooms on the second floor and the standby generator will be located on the roof. The Project will be compliant with the Article 25 provisions of the Boston Zoning Code relating to flood zones and the Massachusetts State Building Code provisions relating to floodplain construction.

The shoreline design includes a collaborative effort between marine engineering and landscape design. Granite seawall blocks salvaged from onsite will be repurposed to fortify the dilapidated coastal riprap bank and will be placed in such a manner to create small pockets of littoral zone plantings intended to create a partial living shoreline. The Harborwalk will be surfaced with permeable crushed stone to decrease stormwater run-off.

Plant materials for the Project will be comprised of drought resistant native and adapted coastal species that can thrive in an exposed marine environment. The Harborwalk edge of the Project will include heavily planted mounds that make up the grade change between the elevated courtyard level and the Harborwalk and will serve to buffer the impacts of coastal flooding and storm surges.

LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name: 99 Sumner Street, East Boston, MA
Date: 20-Mar-17

Y	?	N			
			Credit	Integrative Process	1

Y	?	N		Location and Transportation	16
			Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
	1		Credit	High Priority Site	2
2			Credit	Surrounding Density and Diverse Uses	5
5			Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
			Credit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

Y	?	N		Sustainable Sites	10
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit	Site Assessment	1
			Credit	Site Development - Protect or Restore Habitat	2
1			Credit	Open Space	1
2			Credit	Rainwater Management	3
1			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

Y	?	N		Water Efficiency	11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
2			Credit	Indoor Water Use Reduction	6
			Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

Y	?	N		Energy and Atmosphere	33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
3			Credit	Enhanced Commissioning	6
8			Credit	Optimize Energy Performance	18
			Credit	Advanced Energy Metering	1
			Credit	Demand Response	2
2			Credit	Renewable Energy Production	3
			Credit	Enhanced Refrigerant Management	1
2			Credit	Green Power and Carbon Offsets	2

Y	?	N		Materials and Resources	13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
			Credit	Building Life-Cycle Impact Reduction	5
1			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
2			Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
2			Credit	Building Product Disclosure and Optimization - Material Ingredients	2
1			Credit	Construction and Demolition Waste Management	2

Y	?	N		Indoor Environmental Quality	16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
1			Credit	Enhanced Indoor Air Quality Strategies	2
2			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
1			Credit	Interior Lighting	2
			Credit	Daylight	3
1			Credit	Quality Views	1
1			Credit	Acoustic Performance	1

Y	?	N		Innovation	6
1			Credit	Innovation - Access to Quality Transit	5
1			Credit	LEED Accredited Professional	1

Y	?	N		Regional Priority	4
1			Credit	Regional Priority: Optimize Energy Performance Threshold 8	1
1			Credit	Regional Priority: Rainwater Management	1
1			Credit	Regional Priority: Renewable Energy Production	1
			Credit	Regional Priority: Specific Credit	1

Y	?	N		TOTALS	Possible Points: 110
55	1	0			

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

Figure 3-1
LEED Checklist
Source: Building Consultation Services, 2017

Chapter 4

TRANSPORTATION

CHAPTER 4: TRANSPORTATION

4.1 INTRODUCTION

Howard Stein Hudson (HSH) has conducted an evaluation of the transportation impacts of the proposed redevelopment of the former Hodge Boiler Works site located at 99 Sumner Street in East Boston (the "Project" and/or the "Project Site"). This transportation study adheres to the Boston Transportation Department (BTD) Transportation Access Plan Guidelines and requirements of the Article 80 Large Project Review process. This study includes an evaluation of existing conditions, future conditions with and without the Project, projected parking demand, loading operations, transit services, and bicycle and pedestrian activity.

4.2 PROJECT DESCRIPTION

The Project Site is bounded by Sumner Street to the north; LoPresti Park to the west; London Street Extension, a private way, to the east; and Boston Harbor to the south. The Project Site is currently vacant.

The Project includes the construction of a six-story residential building consisting of approximately 119 apartments with 83 parking spaces in a below grade garage. Additionally, there will be approximately 7,200 square feet of work share space on the ground floor. The Project will also include storage for approximately 147 bicycles. Vehicular access/egress will be provided by one full access driveway ramp located along Sumner Street.

4.2.1 STUDY AREA

The study area includes intersections along Meridian Street, Maverick Street, and Sumner Street near the Project Site. As shown in Figure 4-1, the study area includes the following eight intersections:

- Sumner Street/London Street (unsignalized);
- Sumner Street/Havre Street (unsignalized);
- Sumner Street/Paris Street (unsignalized);
- Maverick Street/London Street (unsignalized);
- Maverick Street/Havre Street (unsignalized);
- Maverick Street/Paris Street (unsignalized);

- Meridian Street/Havre Street/Decatur Street/Gove Street (unsignalized); and
- Meridian Street/London Street (unsignalized).

4.2.2 STUDY METHODOLOGY

The Existing Condition analysis includes an inventory of the existing transportation conditions such as traffic characteristics, parking, curb usage, transit, pedestrian circulation, bicycle facilities, loading, and site conditions. Existing counts for vehicles, bicycles, and pedestrians were collected at the study area intersections. A traffic data collection effort forms the basis for the transportation analysis conducted as part of this evaluation.

The future transportation conditions analysis evaluates potential transportation impacts associated with the Project. Long-term impacts are evaluated for the year 2023, based on a seven-year horizon from this traffic study.

The No-Build (2023) Condition includes both general background traffic growth, traffic growth associated with specific developments (not including this Project) and transportation improvements that are planned near the Project Site.

The Build (2023) Condition includes a net increase in traffic volume due to the addition of Project-generated trip estimates to the traffic volumes developed as part of the No-Build (2023) Condition. Expected roadway, parking, transit, pedestrian, and bicycle accommodations, as well as loading capabilities and deficiencies are identified.

The final part of the transportation study identifies measures to mitigate Project-related impacts and to address any traffic, pedestrian, bicycle, transit, safety, or construction related issues that are necessary to accommodate the Project.

An evaluation of short-term traffic impacts associated with construction activities is also provided.

4.3 EXISTING CONDITION

This section includes descriptions of existing study area roadway geometries, intersection traffic control, peak-hour vehicular, bicycle, and pedestrian volumes, average daily traffic volumes, transit availability, parking and curb usage, and loading conditions.

4.3.1 EXISTING ROADWAY CONDITIONS

The study area roadways are described below. The descriptions reflect functional classifications by the Massachusetts Department of Transportation (MassDOT) Highway Division's Office of Transportation Planning.

Sumner Street is a two-way, two-lane roadway located to the north of the Project Site. Sumner Street is classified as an urban minor arterial roadway to the east of Maverick Square and as an urban local roadway to the west of Maverick Square under BTD jurisdiction. Sumner Street runs predominately in the east-west direction between the Boston Harbor Street to the east and New Street to the west. Within the study area, on-street parking and sidewalks are provided on both sides of the roadway.

London Street is a one-way southbound, one-lane roadway located to the west of the Project site. London Street is classified as an urban local roadway under BTD jurisdiction that runs predominately in the north-south direction between Bennington Street to the north through Carlton Wharf to the south (known as London Street Extension). Within the study area, on-street parking and sidewalks are provided along both sides of the roadway with the exception that a sidewalk does not currently exist on the west side south of Sumner Street.

Havre Street is a one-way northbound, one-lane roadway located to the northwest of the Project Site. Havre Street is classified as an urban local roadway under BTD jurisdiction that runs predominately in the north-south direction between Route 1A to the north and Sumner Street to the south. Within the study area, on-street parking and sidewalks are provided along both sides of the roadway.

Paris Street is a one-way southbound, one-lane roadway located to the northwest of the Project Site. Paris Street is classified as an urban local roadway under BTD jurisdiction that runs predominately in the north-south direction between Porter Street to the north and Sumner Street to the south. Within the study area, on-street parking and sidewalks are provided along both sides of the roadway.

Maverick Street is a one-way westbound, one-lane roadway located to the north of the Project Site. Maverick Street is classified as an urban minor arterial under BTD jurisdiction that runs predominantly in the east-west direction between Tomahawk Drive to the east and New Street to the west. Within the study area, on-street parking and sidewalks are provided on both sides of the roadway. A bike lane is also provided on the north side of the travel way.

Meridian Street is a two-way, two-lane roadway located to the north of the Project Site. Meridian Street is classified as an urban minor arterial roadway under BTD jurisdiction that runs predominately in the southeast-northwest direction between

the Andrew McArdle Bridge to the north and Maverick Square to the south. Within the study area, on-street parking and sidewalks are provided along both sides of the roadway.

4.3.2 EXISTING INTERSECTION CONDITIONS

Sumner Street/London Street/London Street Extension is a four legged, unsignalized intersection with three approaches. The Sumner Street eastbound approach is a free movement and consists of one lane, a shared through/right-turn lane. The Sumner Street westbound approach is a free movement and consists of one lane, a shared left-turn/through lane. The London Street southbound approach is stop controlled and consists of one lane, a shared left-turn/through/right-turn lane. London Street Extension runs one-way southbound away from the intersection. On-street parking is provided on all public street approaches to the intersection. Crosswalks and wheelchair ramps are provided across the Sumner Street eastbound approach and the London Street southbound approach. London Street Extension is a private way.

Sumner Street/Havre Street is a three legged, unsignalized intersection with two approaches. The Sumner Street eastbound approach is a free movement and consists of one lane, a shared left-turn/through lane. The Sumner Street westbound approach is a free movement and consists of one lane, a shared through/right-turn lane. On-street parking is provided on all approaches to the intersection. Crosswalks and wheelchair ramps are provided across the Sumner Street eastbound approach and the Havre Street southbound approach.

Sumner Street/Paris Street is a three legged, unsignalized intersection with three approaches. The Sumner Street eastbound approach is a free movement and consists of one lane, a through only lane. The Sumner Street westbound approach is a free movement and consists of one lane, a through only lane. The Paris Street southbound approach is stop controlled and consists of one lane, a shared left-turn/right-turn lane. Crosswalks and wheelchair ramps are provided across all approaches to the intersection.

Maverick Street/London Street is a four legged, unsignalized intersection with two approaches. The Maverick Street westbound approach is a free movement and consists of one lane, a shared left-turn/through lane. The London Street southbound approach is stop controlled and consists of one lane, a shared through/right-turn lane. On-street parking is provided on all approaches to the intersection. Crosswalks and wheelchair ramps are provided across Maverick Street eastbound and westbound approaches and the London Street northbound approach.

Maverick Street/Havre Street is a four legged, unsignalized intersection with two approaches. The Maverick Street westbound approach is stop controlled and

consists of one lane, a shared through/right-turn lane. The Havre Street northbound approach is stop controlled and consists of one lane, a shared left-turn/through lane. On-street parking is provided on all approaches to the intersection. Crosswalks and wheelchair ramps are provided across all approaches to the intersection.

Maverick Street/Paris Street is a four legged, unsignalized intersection with two approaches. The Maverick Street westbound approach is stop controlled and consists of one lane, a shared left-turn/through lane. The Paris Street southbound approach is stop controlled and consists of one lane, a shared through/right-turn lane. On-street parking is provided on all approaches to the intersection. Crosswalks and wheelchair ramps are provided across all approaches to the intersection.

Meridian Street/Havre Street/Decatur Street/Gove Street is a six-legged, unsignalized intersection with four approaches. The Decatur Street eastbound approach is stop controlled and consists of one lane, a shared hard left-turn/left-turn/through/slight right-turn lane. The Havre Street northbound approach is stop controlled and consists of one lane, a shared left-turn/slight left-turn/through/right-turn/hard right-turn lane. The Meridian Street south-eastbound approach is a free movement and consists of one lane, a shared hard left-turn/slight left-turn/through/hard right-turn lane. The Meridian Street north-westbound approach is a free movement and consists of one lane, a shared slight left-turn/through/slight right-turn/hard right-turn lane. The Decatur Street eastbound approach is offset to the south of Meridian Street approximately 75 feet and the Gove Street westbound approach is offset to the north of Meridian Street by approximately 50 feet. On-street parking is provided on all approaches to the intersection. Crosswalks and wheelchair ramps are provided across all stop-controlled approaches to the intersection and Meridian Street southeast/northwest approaches, connecting the southeast corner with the northwest corner of the roadway.

Meridian Street/London Street is a four-legged, unsignalized intersection with four approaches that meet at a skewed angle. The London Street northbound approach is stop controlled and consists of one lane, a shared slight left-turn/through/hard right-turn lane. The London Street southbound approach is stop controlled and consists of one lane, a shared slight left-turn/through/hard right-turn lane. The Meridian Street south-eastbound approach is a free movement and consists of one lane, a shared hard left-turn/through/slight right-turn lane. The Meridian Street north-westbound approach is a free movement and consists of one lane, a shared hard left-turn/through/slight right-turn lane. On-street parking is provided on all approaches to the intersection. Crosswalks and wheelchair ramps are provided across the London Street northbound and southbound approach and Meridian Street southeast/northwest approaches, connecting the southeast corner with the northwest corner of the roadway.

4.3.3 EXISTING PARKING AND CURB USE

Curb use regulations near the Project Site include mostly 2-hour commercial parking, resident only parking, and two-hour parking except with resident sticker. Almost every street has on-street parking along both sides of the roadway. Figure 4-2 illustrates the on-street parking regulations near the study area.

4.3.4 CAR SHARING SERVICES

Car sharing enables easy access to short-term vehicular transportation. Vehicles are rented on an hourly or daily basis, and all vehicle costs (gas, maintenance, insurance, and parking) are included in the rental fee. Vehicles are checked out for a specific time period and returned to their designated location. Zipcar provides car-sharing services at five locations within the project area. The nearby Zipcar locations are shown in Figure 4-3.

4.3.5 EXISTING TRAFFIC DATA

Traffic volume data have been collected at the study area intersections. Turning Movement Counts (TMCs) and vehicle classification counts were conducted on Wednesday December 7, 2016 during the weekday a.m. and p.m. peak periods (7:00–9:00 a.m. and 4:00–6:00 p.m., respectively). The traffic classification counts included car, truck, pedestrian, and bicycle movements. Based on the TMCs, the peak hours of vehicular traffic throughout the study area are generally 7:45–8:45 a.m. and 5:00–6:00 p.m. The weather was rainy and cloudy.

4.3.6 SEASONAL ADJUSTMENT

In order to account for seasonal variation in traffic volumes throughout the year, data provided by MassDOT were reviewed. The most recent (2011) MassDOT Weekday Seasonal Factors were used to determine the need for seasonal adjustments to the December 2016 TMCs. The 2011 seasonal adjustment factors for January for roadways similar to the study area (Group 6) are 0.97. This indicates that average month traffic volumes are approximately three percent lower than the traffic volumes that were collected. The traffic counts were not decreased to reflect the average month conditions in order to provide a conservatively analysis. The MassDOT 2011 Weekday Seasonal Factors table is provided in the Transportation Appendix.

4.3.7 EXISTING TRAFFIC VOLUMES

All of the existing vehicular traffic volumes were balanced through the network to develop the Existing Condition vehicular traffic volumes. The Existing Condition weekday a.m. and p.m. peak hour traffic volumes are shown in Figure 4-4 and Figure 4-5, respectively.

4.3.8 EXISTING BICYCLE VOLUMES AND ACCOMODATIONS

In recent years, bicycle use has increased dramatically throughout the City of Boston. The Project Site is conveniently located in close proximity to several bicycle facilities. The City of Boston's "Bike Routes of Boston" map indicates that The East Boston Greenway and Marginal Street are designated as beginner routes suitable for all types of bicyclists including newer cyclists, cyclists with limited on-road experience and/or children. Additionally, Sumner Street and Maverick Street are designated as intermediate routes, suitable for riders with some on-road experience.

Bicycle counts were conducted concurrently with the vehicular TMCs. A low volume of bicycles resulted, which could be due to rainy weather during the data collection. Therefore, the Figure 4-6 reflects higher bicycle volumes that were collected during November 2015. As shown in the figure, bicycle volumes are heaviest along Meridian Street and Sumner Street.

4.3.9 BICYCLE SHARING SERVICES

Hubway is the bicycle sharing system in the Boston area, which was launched in 2011 and consists of over 180 stations and 1,600 bicycles. On September 27, 2016, Hubway was introduced to East Boston by the addition of nine stations. Figure 4-7 shows the five Hubway stations within a one-quarter mile radius of the Project Site. See Figure 4-7, Hubway Locations.

4.3.10 EXISTING PEDESTRIAN VOLUMES AND ACCOMMODATIONS

In general, sidewalks are provided along all roadways and are in good condition. Crosswalks are also provided at the study area intersections. Adjacent to the Project Site, the sidewalks are approximately 12 feet in width along Sumner Street.

Pedestrian counts were conducted concurrent with the vehicular TMCs, and are presented in Figure 4-8. As shown in the figure, pedestrian volumes are heaviest around Meridian Street with pedestrian volumes of about 100 pedestrians per hour during both the a.m. and p.m. peak hour.

4.3.11 EXISTING PUBLIC TRANSPORTATION SERVICES

The Project Site is located fewer than 1,000 feet away from Maverick Station. Maverick Station provides access to the MBTA's Blue Line and five MBTA bus routes. The following describes each public transportation route served by the Maverick MBTA station. Figure 4-9 shows a map of all public transportation service located in close proximity of the Project Site.

MBTA Blue Line– The Blue Line branch of the MBTA subway system stops at Maverick Station. The Blue Line provides access between Bowdoin Station in downtown Boston to the southwest and Wonderland Station in Revere to the northeast. The Blue Line operates with headways of approximately 5 to 8 minutes.

MBTA Bus Route 114– This route provides service between Maverick Station in East Boston and Bellingham Square in Chelsea. Weekday service runs from approximately 9:00 a.m.–4:16 p.m., with headways ranging from approximately 50 minutes to 55 minutes. MBTA Bus Route 114 does not provide weekend bus service.

MBTA Bus Route 116– This route provides service between Maverick Station in East Boston and Wonderland Station in the Revere via Revere Street. Weekday service runs from approximately 5:15 a.m.–2:50 a.m., with headways ranging from approximately 20 minutes to 30 minutes. Saturday and Sunday service from approximately 5:25 a.m. – 1:23 a.m., with headways ranging from approximately 30 minutes to 40 minutes.

MBTA Bus Route 117– This route provides service between Maverick Station in East Boston and Wonderland Station in the Revere via Beach Street. Weekday service runs from approximately 4:25 a.m.–2:33 a.m., with headways ranging from approximately 15 minutes to 20 minutes. Saturday and Sunday service from approximately 4:33 a.m.–2:53 a.m., with headways ranging from approximately 30 minutes to 40 minutes.

MBTA Bus Route 120– This route provides service between Maverick Station in East Boston and Orient Heights Station in East Boston. Weekday service runs from approximately 5:25 a.m.–1:18 a.m., with headways ranging from approximately 20 minutes to 25 minutes. Saturday and Sunday service from approximately 5:25 a.m. – 1:17 a.m., with headways ranging from approximately 25 minutes to 30 minutes.

MBTA Bus Route 121– This route provides service between Maverick Station in East Boston and Wood Island in East Boston. Weekday service runs from approximately 6:00 a.m.–6:46 p.m., with headways of approximately 30 minutes. MBTA Bus Route 121 does not provide weekend bus service.

4.3.12 EXISTING TRAFFIC OPERATIONS

Traffic ware's Synchro (version 9) software package was used to calculate average delay and associated LOS at the study area intersections. This software is based on the traffic operational analysis methodology of the Transportation Research Board's 2000 Highway Capacity Manual (HCM).

LOS designations are based on average delay per vehicle for all vehicles entering an intersection. Table 4-1 displays the intersection LOS criteria. LOS A indicates the most favorable condition, with minimum traffic delay, while LOS F represents the worst condition, with significant traffic delay. LOS D or better is typically considered acceptable in an urban area. However, LOS E or F is often typical for a stop controlled minor street that intersects a major roadway.

Table 4-1: Level of Service Criteria (HCM Excerpt)

Level of Service	Average Stopped Delay (sec./veh.)	
	Signalized Intersection	Unsignalized Intersection
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Source: *2000 Highway Capacity Manual,* Transportation Research Board.

In addition to delay and LOS, the operational capacity and vehicular queues are calculated and used to further quantify traffic operations at intersections. The following describes these other calculated measures.

The volume-to-capacity (v/c) ratio is a measure of congestion at an intersection approach. A v/c ratio below one indicates that the intersection approach has adequate capacity to process the arriving traffic volumes over the course of an hour. A v/c ratio of one or greater indicates that the traffic volume on the intersection approach exceeds capacity.

The 50th percentile queue length, measured in feet, represents the maximum queue length during a cycle of the traffic signal with typical (or median) entering traffic volumes.

The 95th percentile queue length, measured in feet, represents the farthest extent of the vehicle queue (to the last stopped vehicle) upstream from the stop line during five percent of all signal cycles. The 95th percentile queue will not be seen during each cycle. The queue would be this long only five percent of the time and would typically not occur during off-peak hours. Since volumes fluctuate throughout the

hour, the 95th percentile queue represents what can be considered a "worst case" scenario. Queues at the intersection are generally below the 95th percentile queue throughout the course of the peak hour. It is also unlikely that the 95th percentile queues for each approach to the intersection will occur simultaneously.

Table 4-2 and Table 4-3 present the Existing (2016) Condition operational analysis for the study area intersections during the a.m. and p.m. peak hours, respectively. The detailed analysis sheets are provided in the Transportation Appendix.

Table 4-2: Existing (2016) Condition, Capacity Analysis Summary, a.m. Peak Hour

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Sumner Street/London Street	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.06	0
Sumner Street WB left/thru	A	0.0	0.00	0
London Street SB left/thru/right	B	10.1	0.09	7
Sumner Street/Havre Street	-	-	-	-
Sumner Street EB left/thru	A	0.7	0.01	1
Sumner Street WB thru/right	A	0.0	0.04	0
Sumner Street/Paris Street	-	-	-	-
Sumner Street EB thru	A	0.0	0.10	0
Sumner Street WB thru	A	0.0	0.03	0
Paris Street SB left/right	B	10.7	0.13	11
Maverick Street/London Street	-	-	-	-
Maverick Street WB left/thru	A	1.5	0.01	1
London Street SB thru/right	B	10.1	0.17	15
Maverick Street/Havre Street	-	-	-	-
Maverick Street WB thru/right	A	7.6	0.21	20
Havre Street NB left/thru	A	7.6	0.05	5
Maverick Street/Paris Street	-	-	-	-
Maverick Street WB left/thru	A	8.4	0.23	23
Paris Street SB thru/right	A	7.7	0.11	10
Meridian Street/Havre Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.5	0.01	1
Meridian Street SB left/thru/right	A	7.3	0.29	31
Havre Street NEB left/thru/right	F	>100.0	2.30	552
Meridian Street/London Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.5	0.01	1
Meridian Street SB left/thru/right	A	0.3	0.01	1
London Street NEB left/thru/right	C	23.2	0.17	15
London Street SWB left/thru/right	F	84.2	0.92	198
Havre Street/Decatur Street	-	-	-	-
Decatur Street EB left	A	8.3	0.14	13
Havre Street NB left/thru	A	8.2	0.18	18
Havre Street SB right	A	6.9	0.04	3
Havre Street/Gove Street	-	-	-	-
Havre Street NB thru/right	A	0.0	0.42	0

Gray shading indicates LOS E or LOS F.

Table 4-3: Existing (2016) Condition, Capacity Analysis Summary, p.m. Peak Hour

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Sumner Street/London Street	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.09	0
Sumner Street WB left/thru	A	0.2	0.00	0
London Street SB left/thru/right	B	11.2	0.13	11
Sumner Street/Havre Street	-	-	-	-
Sumner Street EB left/thru	A	1.2	0.02	2
Sumner Street WB thru/right	A	0.0	0.08	0
Sumner Street/Paris Street	-	-	-	-
Sumner Street EB thru	A	0.0	0.13	0
Sumner Street WB thru	A	0.0	0.06	0
Paris Street SB left/right	B	11.5	0.14	13
Maverick Street/London Street	-	-	-	-
Maverick Street WB left/thru	A	1.3	0.01	1
London Street SB thru/right	B	10.8	0.17	15
Maverick Street/Havre Street	-	-	-	-
Maverick Street WB thru/right	A	7.9	0.21	20
Havre Street NB left/thru	A	7.9	0.12	10
Maverick Street/Paris Street	-	-	-	-
Maverick Street WB left/thru	A	8.4	0.22	20
Paris Street SB thru/right	A	7.6	0.11	10
Meridian Street/Havre Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.9	0.03	2
Meridian Street SB left/thru/right	A	7.2	0.30	32
Havre Street NEB left/thru/right	F	>100.0	2.53	538
Meridian Street/London Street	-	-	-	-
Meridian Street NB left/thru/right	A	1.0	0.02	2
Meridian Street SB left/thru/right	A	0.9	0.03	2
London Street NEB left/thru/right	D	33.2	0.30	30
London Street SWB left/thru/right	F	>100.0	1.84	697
Havre Street/Decatur Street	-	-	-	-
Decatur Street EB left	A	8.3	0.14	13
Havre Street NB left/thru	A	8.1	0.16	15
Havre Street SB right	A	7.0	0.06	5
Havre Street/Gove Street	-	-	-	-
Havre Street NB thru/right	A	0.0	0.37	0

Gray shading indicates LOS E or LOS F.

At the **Meridian Street/Havre Street** intersection, the Havre Street northbound approach operates at LOS F during both the weekday a.m. and p.m. peak hours.

At the Meridian Street/London Street intersection, the London Street southwest-bound approach operates at LOS F during both the weekday a.m. and p.m. peak hours.

4.4 NO-BUILD (2023) CONDITION

The No-Build (2023) Condition reflects a future scenario that incorporates anticipated traffic volume changes associated with background traffic growth independent of any specific project; traffic associated with other planned specific developments, and planned infrastructure improvements that will affect travel patterns throughout the study area. These infrastructure improvements include roadway, public transportation, pedestrian and bicycle improvements. The No-Build (2023) Condition does not include the impact of the Project.

4.4.1 BACKGROUND TRAFFIC GROWTH

The methodology to account for generic future background traffic growth (vehicular and pedestrian), independent of this Project, may be affected by changes in demographics, smaller scale development projects, or projects unforeseen at this time. Based on a review of recent and historic traffic data collected recently and to account for any additional unforeseen traffic growth, a one-half percent per year annual traffic growth rate was used.

4.4.2 SPECIFIC DEVELOPMENT TRAFFIC GROWTH

Traffic volumes associated with the larger or closer known development projects that will affect traffic patterns throughout the study area within the future analysis time horizon were specifically accounted for in the future scenarios. The following projects are located near the study area. The location of the background projects are shown on Figure 4-10.

- ***The Eddy East Boston.*** This proposed mixed-use project will consist of a new 6-story residential building as well as the addition of six new stories on top of the existing 9-story building to accommodate approximately 238 residential units, approximately 6,000 sf of restaurant space, parking for approximately 164-193 vehicles and boat parking for approximately 36 slips. Construction of the residential portion of this project is complete. However, residential occupancy was not full during traffic volume data collection and other uses on site have not been activated as of yet.

- ***Portside at East Pier.*** This project calls for the construction of seven buildings consisting of approximately 454 rental apartments, 103 condominium units, and 754 parking spaces. The site will also contain an extended stay hotel, a restaurant, and a health club. Only the first building has been constructed and occupied.

- **Coppersmith Village Development.** This proposed project consists of approximately 56 rental apartments located at 75 Boarder Street and 15 condominium units located at 80 Liverpool Street. This project has been approved by the BPDA.

- **Boston East.** This proposed project consists of 200 residential units with approximately 120 underground parking spaces, public open space, a community gallery, and the extension of the Harborwalk. This project is currently under construction and expected to open in late 2017.

- **135 Bremen Street.** This proposed project consists of approximately 94 residential units, 7,790 sf of ground floor retail space, and 126 underground parking spaces in two underground parking levels. This project has been approved by the BPDA.

- **Clippership Wharf.** This proposed project consists of four new mixed-use buildings with approximately 492 residential units, including 214 apartment units and 278 condominium units, and 21,000 sf of ground floor retail space, consisting of a 4,000 sf restaurant, a 2,500 sf café, and a 14,500 sf recreational community center with a kayak and canoe boat rental facility. Parking will be provided in an underground 280-space garage, with an additional 21 spaces for the recreational center, and an additional 15 surface spaces will be provided for visitors and retail shoppers. This project is under construction.

- **Clippership Apartments.** This proposed project consists of the demolition of the existing building consisting of approximately 20 residential units and the construction of 50 residential units (30 new units) in two residential buildings. The project will also consist of 3,400 sf of ground floor retail space. Eighteen surface parking spaces will be provided for the residential units. The Project is currently going through BPDA review.

4.4.3 PLANNED INFRASTRUCTURE IMPROVEMENTS

A review of planned improvements to roadway, transit, bicycle, and pedestrian facilities was conducted to determine if there are any nearby improvement projects near the study area. The following public infrastructure project is planned to be implemented within the seven-year analysis horizon of this traffic study.

The City of Boston is in the process of acquiring ferry boats in order to provide service between East Boston and the Seaport District. The East Boston dock will be located on the east side of the Clippership Wharf site, approximately 500 feet away from the Project Site. Although it is likely this service will be in place within five years, thus providing an additional transit option in the area, the transit mode share

was not increased to account for this service in order to provide a conservative estimate in the analysis.

4.4.4 NO-BUILD (2023) CONDITION TRAFFIC VOLUMES

The one-half percent per year annual growth rate was applied to the Existing Condition traffic volumes, then the traffic volumes associated with the background development project listed above was added to develop the No-Build (2023) Condition traffic volumes. The No-Build (2023) Condition weekday a.m. and p.m. peak hour traffic volumes are shown in Figure 4-11 and Figure 4-12, respectively.

4.4.5 NO-BUILD (2023) CONDITION TRAFFIC OPERATIONS ANALYSIS

The No-Build (2023) Condition capacity analysis uses the same methodology as the Existing Condition capacity analysis. Table 4-4 and Table 4-5 present the No-Build (2023) Condition capacity analysis for the a.m. and p.m. peak hours, respectively. The shaded cells in the tables indicate a worsening in LOS between the Existing Condition and the No-Build (2023) Condition. The detailed analysis sheets are provided in the Transportation Appendix.

Table 4-4: No-Build (2023) Condition, Capacity Analysis Summary, a.m. Peak Hour

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Sumner Street/London Street	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.08	0
Sumner Street WB left/thru	A	0.0	0.00	0
London Street SB left/thru/right	B	10.5	0.12	10
Sumner Street/Havre Street	-	-	-	-
Sumner Street EB left/thru	A	1.3	0.02	2
Sumner Street WB thru/right	A	0.0	0.05	0
Driveway NB left/right	B	11.3	0.01	1
Sumner Street/Paris Street	-	-	-	-
Sumner Street EB thru	A	0.0	0.14	0
Sumner Street WB thru	A	0.0	0.05	0
Paris Street SB left/right	B	11.5	0.17	15
Maverick Street/London Street	-	-	-	-
Maverick Street WB left/thru	A	1.3	0.01	1
London Street SB thru/right	B	10.6	0.22	21
Maverick Street/Havre Street	-	-	-	-
Maverick Street WB thru/right	A	8.0	0.24	23
Havre Street NB left/thru	A	8.0	0.12	10
Maverick Street/Paris Street	-	-	-	-
Maverick Street WB left/thru	A	8.7	0.25	25
Paris Street SB thru/right	A	7.9	0.13	13
Meridian Street/Havre Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.4	0.01	1
Meridian Street SB left/thru/right	A	7.8	0.33	36
Havre Street NEB left/thru/right	F	>100.0	3.83	Err
Meridian Street/London Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.4	0.01	1
Meridian Street SB left/thru/right	A	0.3	0.01	1
London Street NEB left/thru/right	D	28.1	0.23	21
London Street SWB left/thru/right	F	>100.0	1.19	313
Havre Street/Decatur Street	-	-	-	-
Decatur Street EB left	A	8.7	0.18	18
Havre Street NB left/thru	A	8.8	0.26	25
Havre Street SB right	A	7.1	0.04	3
Havre Street/Gove Street	-	-	-	-
Havre Street NB thru/right	A	0.0	0.48	0

Gray shading indicates decrease in LOS from Existing (2016) Condition below LOS E or LOS F.

Table 4-5: No-Build (2023) Condition, Capacity Analysis Summary, p.m. Peak Hour

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Sumner Street/London Street	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.10	0
Sumner Street WB left/thru	A	0.2	0.00	0
London Street SB left/thru/right	B	12.1	0.22	20
Sumner Street/Havre Street	-	-	-	-
Sumner Street EB left/thru	A	1.3	0.03	2
Sumner Street WB thru/right	A	0.0	0.09	0
Driveway NB left/right	B	13.0	0.02	1
Sumner Street/Paris Street	-	-	-	-
Sumner Street EB thru	A	0.0	0.16	0
Sumner Street WB thru	A	0.0	0.08	0
Paris Street SB left/right	B	12.2	0.22	20
Maverick Street/London Street	-	-	-	-
Maverick Street WB left/thru	A	1.1	0.01	1
London Street SB thru/right	B	12.3	0.30	31
Maverick Street/Havre Street	-	-	-	-
Maverick Street WB thru/right	A	8.4	0.26	25
Havre Street NB left/thru	A	8.4	0.18	15
Maverick Street/Paris Street	-	-	-	-
Maverick Street WB left/thru	A	8.8	0.27	28
Paris Street SB thru/right	A	8.1	0.17	15
Meridian Street/Havre Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.9	0.03	2
Meridian Street SB left/thru/right	A	7.6	0.33	32
Havre Street NEB left/thru/right	F	>100.0	3.83	Err
Meridian Street/London Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.9	0.03	2
Meridian Street SB left/thru/right	A	0.9	0.03	2
London Street NEB left/thru/right	F	>100.0	0.74	93
London Street SWB left/thru/right	F	>100.0	2.50	997
Havre Street/Decatur Street	-	-	-	-
Decatur Street EB left	A	8.6	0.17	15
Havre Street NB left/thru	A	8.5	0.22	20
Havre Street SB right	A	7.1	0.07	5
Havre Street/Gove Street	-	-	-	-
Havre Street NB thru/right	A	0.0	0.42	0

Gray shading indicates decrease in LOS from Existing (2016) Condition below LOS E or LOS F.

At the Meridian Street/London Street intersection, the London Street northeast-bound approach decreases from LOS D in the Existing (2016) Condition to LOS F during the weekday p.m. peak hour.

4.5 BUILD (2023) CONDITION

As previously summarized, the 99 Sumner Street development will consist of approximately 119 apartment units and approximately 7,200 sf of work share space, with approximately 83 parking spaces and secure storage for bicycles at a 1/dwelling unit ratio in an underground garage, in addition to exterior bicycle racks for visitors and members of the public. The Build (2023) Condition reflects a future scenario that adds anticipated Project-generated trips to the No-Build (2023) Condition traffic volumes.

4.5.1 SITE ACCESS AND CIRCULATION

Vehicular access and egress to the underground garage will be provided by one full access driveway along Sumner Street. There are two main pedestrian access points to the building; access to the pedestrian residential lobby will be located along Sumner Street and along the west side of the building, there will be a sidewalk leading to access to the work share space.

Circulation surrounding the Project Site will be greatly enhanced along the southern and eastern edges of the Project Site. The Harborwalk will be extended along the water frontage and connect the LoPresti Park and Carlton Wharf sections of the Harborwalk. Along the eastern edge of the Project Site, a sidewalk will be added on the property along London Street Extension to provide pedestrian access for the public from Sumner Street to the Harborwalk. The proposed site access plan is illustrated in Figure 4-13.

4.5.2 PARKING

The Project will provide 83 parking spaces in a below grade garage. Of the 83 parking spaces, 64 will be standard spaces and 19 will be tandem spaces. This results in a parking ratio of 0.70 spaces per residential unit.

The parking goals developed by the BTD for East Boston are a maximum of 0.75 to 1.25 parking spaces per residential unit and a maximum of 0.75 to 1.25 parking spaces per 1,000 sf of commercial space for buildings in East Boston within a 10 minute walk of an MBTA station. The parking ratio of 0.70 spaces per residential unit and zero spaces per 1,000 sf of commercial space (retail/office) proposed for the project is consistent with the the intent of the district-based parking goals for a location with a variety of transit options.

4.5.3 LOADING AND SERVICE ACCOMMODATIONS

In addition to move-in/move-out operations, residential units primarily generate delivery trips related to small packages and prepared food on a daily basis. Office uses such as work share depend on deliveries from small sized trucks. Loading and service operations will occur along Sumner Street. This space will accommodate all deliveries, trash pick-up, and residential move-in/move-out activity.

4.5.4 BICYCLE ACCOMMODATION

BTD has established guidelines requiring projects subject to Transportation Access Plan Agreements (such as this Project) to provide secure bicycle parking for residents and employees and short-term bicycle racks for visitors. The Project will provide 135 covered and secure bicycle storage spaces on-site, a rate of one secure bicycle storage space per residential unit and one secure bicycle storage space per 1,000 sf of office space. Additional storage will be provided by outdoor bicycle racks accessible to visitors to the Project Site in accordance with BTD guidelines.

All bicycle racks, signs, and parking areas will conform to BTD guidelines and be located in safe, secure locations. The Proponent will work with BTD to identify the most appropriate quantity and location for bicycle racks on the Project Site as part of the Transportation Access Plan Agreement (TAPA) process.

4.5.5 TRIP GENERATION METHODOLOGY

Trip generation is a complex, multi-step process that produces an estimate of vehicle trips, transit trips, walk trips, and bicycle trips associated with a proposed project and a specific land use program. A project's location and proximity to different modes determines how people will travel to and from that Project Site.

To estimate the number of trips expected to be generated by the Project, data published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual[1] were used. ITE provides data to estimate the total number of unadjusted vehicular trips associated with the Project. In an urban setting well served by transit, adjustments are necessary to account for other travel mode shares such as walking, bicycling, and transit.

Trip generation estimates for the Project were derived using the following Land Use Codes (LUC):

[1] *Trip Generation Manual*, 9th Edition; Institute of Transportation Engineers; Washington, D.C.; 2012.

LUC 220 – Apartment. The apartment land use is described as rental dwelling units located within the same building with at least three other dwelling units. The trip generation calculations are based on the average rate per residential dwelling unit.

LUC 310 – General Office Building. General office is defined as an office building containing multiple tenants. An office building typically contains a mixture of professional services. The trip generation calculations are based on the average rate per 1,000 sf of office space.

4.5.6 TRAVEL MODE SHARES

The BTD publishes vehicle, transit, and walking mode split rates for different areas of Boston. The Project is located within designated Area 7 – East Boston. The unadjusted vehicular trips were converted to person trips by using vehicle occupancy rates published by the Federal Highway Administration (FHWA)[2]. The BTD's travel mode share data for Area 7 are shown in Table 4-6.

Table 4-6: Travel Mode Shares

Land Use		Walk/Bike Share[1]	Transit Share[1]	Auto Share[1]	Local Vehicle Occupancy Rate[2]
Daily					
Residential	In	29%	17%	54%	1.13
	Out	29%	17%	54%	1.13
Office	In	5%	21%	74%	1.13
	Out	5%	21%	74%	1.13
a.m. Peak Hour					
Residential	In	34%	15%	51%	1.13
	Out	30%	25%	45%	1.13
Office	In	6%	19%	75%	1.13
	Out	5%	32%	63%	1.13
p.m. Peak Hour					
Residential	In	30%	25%	45%	1.13
	Out	34%	15%	51%	1.13
Office	In	5%	32%	63%	1.13
	Out	6%	19%	75%	1.13

[1] Boston Transportation Department mode share data for Area 7 – East Boston for the Home and Work use.
[2] 2009 National Household Travel Survey.

[2] *Summary of Travel Trends: 2009 National Household Travel Survey*; FHWA; Washington, D.C.; June 2011.

4.5.7 PROJECT TRIP GENERATION

The mode share percentages shown in Table 4-6 were applied to the number of person trips to develop walk/bicycle, transit, and vehicle trip generation estimates. The Project Site is currently vacant and there are no existing vehicular trips. The trip generation for the Project by mode is shown in Table 4-7. The detailed trip generation information is provided in the Transportation Appendix.

Table 4-7: Trip Generation Summary

Time Period	Direction	Walk/Bike Trips	Transit Trips	Vehicle Trips
Daily				
Apartment[1]	In	131	77	215
	Out	131	77	215
	Total	**262**	**154**	**430**
Office[2]	In	2	9	30
	Out	2	9	30
	Total	**4**	**18**	**60**
Total	In	133	86	245
	Out	133	86	245
	Total	**266**	**172**	**490**
a.m. Peak Hour				
Apartment[1]	In	5	2	6
	Out	17	14	21
	Total	**22**	**16**	**27**
Office[2]	In	1	2	7
	Out	0	0	1
	Total	**1**	**2**	**8**
Total	In	6	4	13
	Out	17	14	22
	Total	**23**	**18**	**35**
p.m. Peak Hour				
Apartment[1]	In	16	14	21
	Out	10	4	13
	Total	**26**	**18**	**34**
Office[2]	In	0	1	1
	Out	1	2	6
	Total	**1**	**3**	**7**

Time Period	Direction	Walk/Bike Trips	Transit Trips	Vehicle Trips
Total	In	16	15	22
	Out	11	6	19
	Total	**27**	**21**	**41**

1 Based on ITE LUC 220 – Apartment (Average Rate)
2 Based on ITE LUC 310 – General Office Building (Average Rate)

As shown in Table 4-7, the Project will generate an estimated 266 new daily walk/bike trips, 172 new daily transit trips, and 490 new daily vehicle trips. During the weekday a.m. peak hour the project will generate an estimated 23 new walk/bike trips, 6 entering and 17 exiting, 18 new transit trips, 4 boarding and 14 alighting, and 35 new vehicle trips, 13 entering and 22 exiting. During the weekday p.m. peak hour the project will generate an estimated 27 new walk/bike trips, 16 entering and 11 exiting, 21 new transit trips, 15 boarding and 6 alighting, and 41 new vehicle trips, 22 entering and 19 exiting.

4.5.8 TRIP GENERATION COMPARISON

The Project Site was most recently permitted by the BPDA (then the BRA) for redevelopment in 2012. A NPC was submitted that included a program of 95 residential apartment units, 6 bed and breakfast rooms, a 42-slip marina with supporting building, an approximately 600 square foot waterfront café, and 75 parking spaces. The trip generation summary of each building program is summarized in Table 4-8.

Table 4-8: Trip Generation Comparison

Time Period	Direction	Walk/Bike Trips	Transit Trips	Vehicle Trips	Total Person Trips[1]
Daily					
2012 NPC	In	74	234	171	520
	Out	74	234	171	520
	Total	**148**	**468**	**342**	**1040**
2017 NPC	In	133	86	245	496
	Out	133	86	245	496
	Total	**266**	**172**	**490**	**992**
Net Change	In	59	-148	74	-24
	Out	59	-148	74	-24
	Total	118	-296	148	-48

Time Period	Direction	Walk/Bike Trips	Transit Trips	Vehicle Trips	Total Person Trips[1]
a.m. Peak Hour					
2012 NPC	In	4	7	7	21
	Out	7	29	16	56
	Total	**11**	**36**	**23**	**77**
2017 NPC	In	6	4	13	25
	Out	17	14	22	56
	Total	**23**	**18**	**35**	**81**
Net Change	In	2	-3	6	4
	Out	10	-15	6	0
	Total	12	-18	12	4
p.m. Peak Hour					
2012 NPC	In	8	29	18	60
	Out	5	15	11	35
	Total	**13**	**44**	**29**	**95**
2017 NPC	In	16	15	22	56
	Out	11	6	19	38
	Total	**27**	**21**	**41**	**94**
Net Change	In	8	-14	4	-4
	Out	6	-9	8	3
	Total	14	-23	12	-1

1 Does not equal sum of Walk/Bike + Transit + Vehicle due to vehicle occupancy rate.

4.5.9 TRIP DISTRIBUTION

The trip distribution identifies the various travel paths for vehicles arriving and leaving the Project Site. Trip distribution patterns for the Project were based on BTD's origin-destination data for Area 7 – East Boston, and trip distribution patterns presented in traffic studies for nearby projects. The trip distribution patterns for the Project are illustrated on Figure 4-14.

4.5.10 BUILD (2023) TRAFFIC VOLUMES

The vehicle trips were distributed through the study area. The Project-generated trips for the a.m. and p.m. peak hours are shown in Figure 4-15 and Figure 4-16, respectively. The trip assignments were added to the No-Build (2023) Condition vehicular traffic volumes to develop the Build (2023) Condition vehicular traffic

volumes. The Build (2023) Condition weekday a.m. and p.m. peak hour traffic volumes are shown on Figure 4-17 and Figure 4-18, respectively.

4.5.11 BUILD (2023) CONDITION TRAFFIC OPERATIONS

The Build (2023) Condition scenario analyses use the same methodology as the Existing (2016) Condition and No-Build (2023) Condition scenario analyses. The results of the Build (2023) Condition traffic analysis at study area intersections are presented in Table 4-9 and Table 4-10 for the a.m. and p.m. peak hours, respectively. The shaded cells in the tables indicate a decrease in LOS between the No-Build (2023) Condition and the Build (2023) Condition. The detailed analysis sheets are provided in the Transportation Appendix.

Table 4-9: Build (2023) Condition, Capacity Analysis Summary, a.m. Peak Hour

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Sumner Street/London Street	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.09	0
Sumner Street WB left/thru	A	0.0	0.00	0
London Street SB left/thru/right	B	10.7	0.13	11
Sumner Street/Havre Street	-	-	-	-
Sumner Street EB left/thru	A	1.9	0.04	3
Sumner Street WB thru/right	A	0.0	0.06	0
Driveway NB left/right	B	11.8	0.01	1
Sumner Street/Paris Street	-	-	-	-
Sumner Street EB thru	A	0.0	0.15	0
Sumner Street WB thru	A	0.0	0.05	0
Paris Street SB left/right	B	11.6	0.18	16
Maverick Street/London Street	-	-	-	-
Maverick Street WB left/thru	A	1.3	0.01	1
London Street SB thru/right	B	10.8	0.23	22
Maverick Street/Havre Street	-	-	-	-
Maverick Street WB thru/right	A	8.1	0.24	23
Havre Street NB left/thru	A	8.1	0.14	13
Maverick Street/Paris Street	-	-	-	-
Maverick Street WB left/thru	A	8.7	0.26	25
Paris Street SB thru/right	A	7.9	0.14	13
Meridian Street/Havre Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.4	0.01	1
Meridian Street SB left/thru/right	A	7.8	0.33	36
Havre Street NEB left/thru/right	F	Err	4.09	Err
Meridian Street/London Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.4	0.01	1
Meridian Street SB left/thru/right	A	0.3	0.01	1
London Street NEB left/thru/right	D	28.9	0.23	22
London Street SWB left/thru/right	F	184.0	1.23	327
Havre Street/Decatur Street	-	-	-	-
Decatur Street EB left	A	8.8	0.18	18
Havre Street NB left/thru	A	9	0.28	30
Havre Street SB right	A	7.1	0.04	3
Havre Street/Gove Street	-	-	-	-
Havre Street NB thru/right	A	0.0	0.49	0
Sumner Street/Site Driveway	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.08	0
Sumner Street WB left/thru	A	1.8	0.01	1

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Site Driveway NB left/right	A	9.0	0.03	2

Table 4-10: Build (2023) Condition, Capacity Analysis Summary, p.m. Peak Hour

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Sumner Street/London Street	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.11	0
Sumner Street WB left/thru	A	0.2	0.00	0
London Street SB left/thru/right	B	12.6	0.24	23
Sumner Street/Havre Street	-	-	-	-
Sumner Street EB left/thru	A	1.7	0.04	3
Sumner Street WB thru/right	A	0.0	0.10	0
Driveway NB left/right	B	13.6	0.02	1
Sumner Street/Paris Street	-	-	-	-
Sumner Street EB thru	A	0.0	0.16	0
Sumner Street WB thru	A	0.0	0.08	0
Paris Street SB left/right	B	12.3	0.23	22
Maverick Street/London Street	-	-	-	-
Maverick Street WB left/thru	A	1.1	0.01	1
London Street SB thru/right	B	12.5	0.31	34
Maverick Street/Havre Street	-	-	-	-
Maverick Street WB thru/right	A	8.5	0.26	28
Havre Street NB left/thru	A	8.6	0.21	20
Maverick Street/Paris Street	-	-	-	-
Maverick Street WB left/thru	A	8.9	0.27	28
Paris Street SB thru/right	A	8.2	0.18	15
Meridian Street/Havre Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.9	0.03	2
Meridian Street SB left/thru/right	A	7.6	0.33	36
Havre Street NEB left/thru/right	F	Err	4.06	Err
Meridian Street/London Street	-	-	-	-
Meridian Street NB left/thru/right	A	0.9	0.03	2
Meridian Street SB left/thru/right	A	1.0	0.03	3
London Street NEB left/thru/right	F	279.6	1.13	134
London Street SWB left/thru/right	F	760.7	2.57	1026
Havre Street/Decatur Street	-	-	-	-
Decatur Street EB left	A	8.7	0.17	15
Havre Street NB left/thru	A	8.6	0.24	23
Havre Street SB right	A	7.1	0.07	5

Intersection/Approach	LOS	Delay (seconds)	V/C Ratio	95th Percentile Queue length (feet)
Havre Street/Gove Street	-	-	-	-
Havre Street NB thru/right	A	0.0	0.42	0
Sumner Street/Site Driveway	-	-	-	-
Sumner Street EB thru/right	A	0.0	0.10	0
Sumner Street WB left/thru	A	2.0	0.02	1
Site Driveway NB left/right	A	9.2	0.02	2

While the traffic impacts associated with the new Project-generated trips are minimal, the Proponent will continue to work with the City of Boston to create a Project that efficiently serves vehicle trips, improves the pedestrian environment, and encourages transit and bicycle usage. As part of the Project, the Proponent will bring all abutting sidewalks and pedestrian ramps to the City of Boston standards in accordance with the Boston Complete Streets design guidelines. This will include the reconstruction and widening of sidewalks; where possible the installation of new, accessible ramps; improvements to street lighting where necessary; planting of street trees; and providing bicycle storage racks surrounding the Project Site, where appropriate.

The Proponent is responsible for preparation of the Transportation Access Plan Agreement (TAPA), a formal legal agreement between the Proponent and the BTD. The TAPA formalizes the findings of the transportation study, mitigation commitments, elements of access and physical design, travel demand management measures, and any other responsibilities that are agreed to by both the Proponent and BTD. Because the TAPA must incorporate the results of the technical analysis, it must be executed after these other processes have been completed. The transportation improvements to be undertaken as part of this Project will be defined and documented in the TAPA.

The Proponent will also produce a Construction Management Plan (CMP) for review and approval by BTD. The CMP will detail the schedule, staging, parking, delivery, and other associated impacts of the construction of the Project. See Section 4.7 for additional information related to the CMP.

4.6 TRANSPORTATION DEMAND MANAGEMENT

The Proponent is committed to implementing Transportation Demand Management (TDM) measures to reduce dependence on automobiles by residents of and visitors to the Site. TDM will be facilitated by the nature and location of the Project.

On-site management will keep a supply of transit information (schedules, maps, and fare information) to be made available to the residents and visitors to the Project Site. The Proponent will work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact.

The Proponent is prepared to take advantage of the good transit access in marketing the Project to future residents by working with them to implement the following demand management measures to encourage the use of non-vehicular modes of travel.

TDM measures for the Project may include but are not limited to the following:

- The Proponent will designate a member of the project management staff as transportation coordinator to oversee transportation issues, including parking, service and loading, and deliveries;
- On-site management will work with tenants/residents as they move in to help facilitate transportation for new arrivals;
- The Proponent will provide orientation packets to new tenants/residents containing information on available transportation choices, including public transportation routes/schedules, nearby vehicle sharing and bicycle sharing locations, and walking opportunities;
- The Proponent will provide bicycle storage in sheltered areas for residents. Subject to necessary approvals, public use bicycle racks for visitors will be placed near building entrances.
- The Proponent will provide electric vehicle charging stations to accommodate 5 percent of the total number of parking spaces and sufficient infrastructure capacity for future accommodation of at least 15% of the total parking spaces
- The Proponent will explore the feasibility of providing spaces in the garage for a car sharing service.

4.7 EVALUATION OF SHORT-TERM CONSTRUCTION IMPACTS

Details of the overall construction schedule, working hours, number of construction workers, worker transportation, and parking, number of construction vehicles, and routes will be addressed in detail in a Construction Management Plan (CMP) to be filed with and approved by BTD in accordance with the City's transportation maintenance plan requirements. The CMP will also address the need for pedestrian detours, lanes closures, and/or parking restrictions, if necessary, to accommodate a safe and secure work zone.

To minimize transportation impacts during the construction period, the following measures will be incorporated into the Construction Management Plan:

- Construction workers will be encouraged to use public transportation and/or carpool;
- A subsidy for MBTA passes will be considered for full-time employees; and
- Secure spaces will be provided on-site for workers' supplies and tools so they do not have to be brought to the Project Site each day.

Figure 4-1
Study Area Intersections
Source: Howard Stein Hudson, 2017

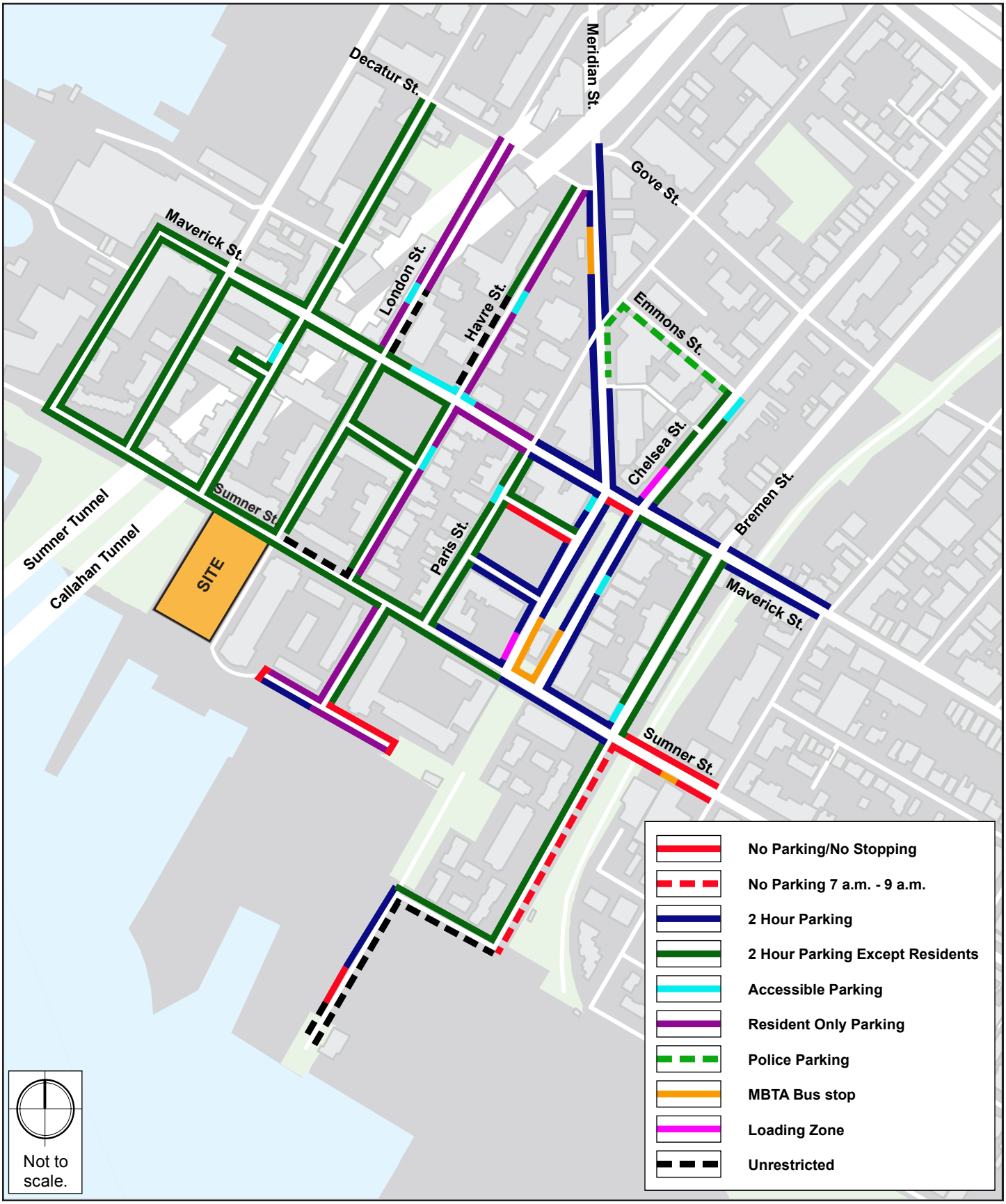
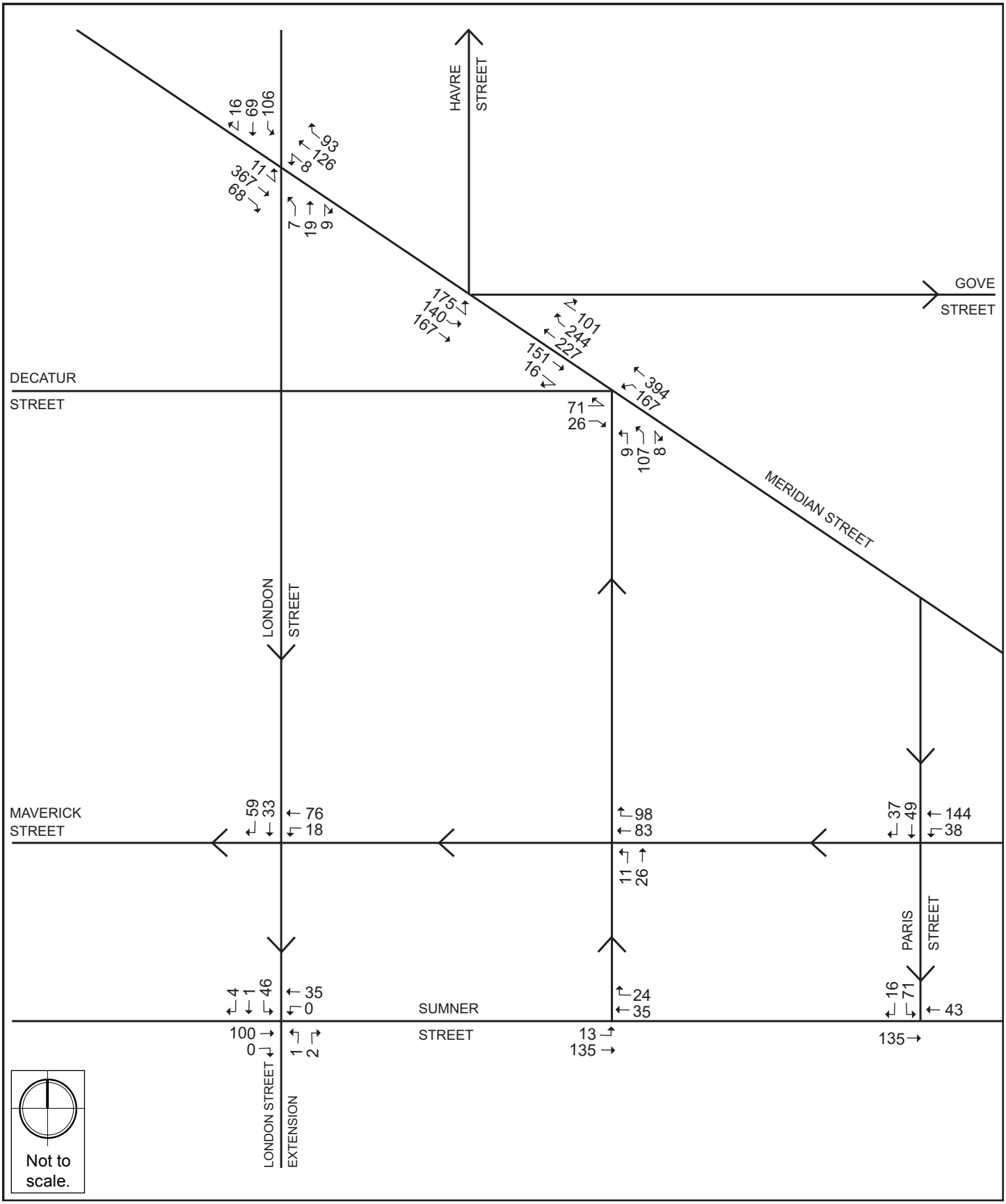


Figure 4-2
On-Street Parking Regulations
Source: Howard Stein Hudson, 2017

Figure 4-3
Zipcar Locations
Source: Howard Stein Hudson, 2017

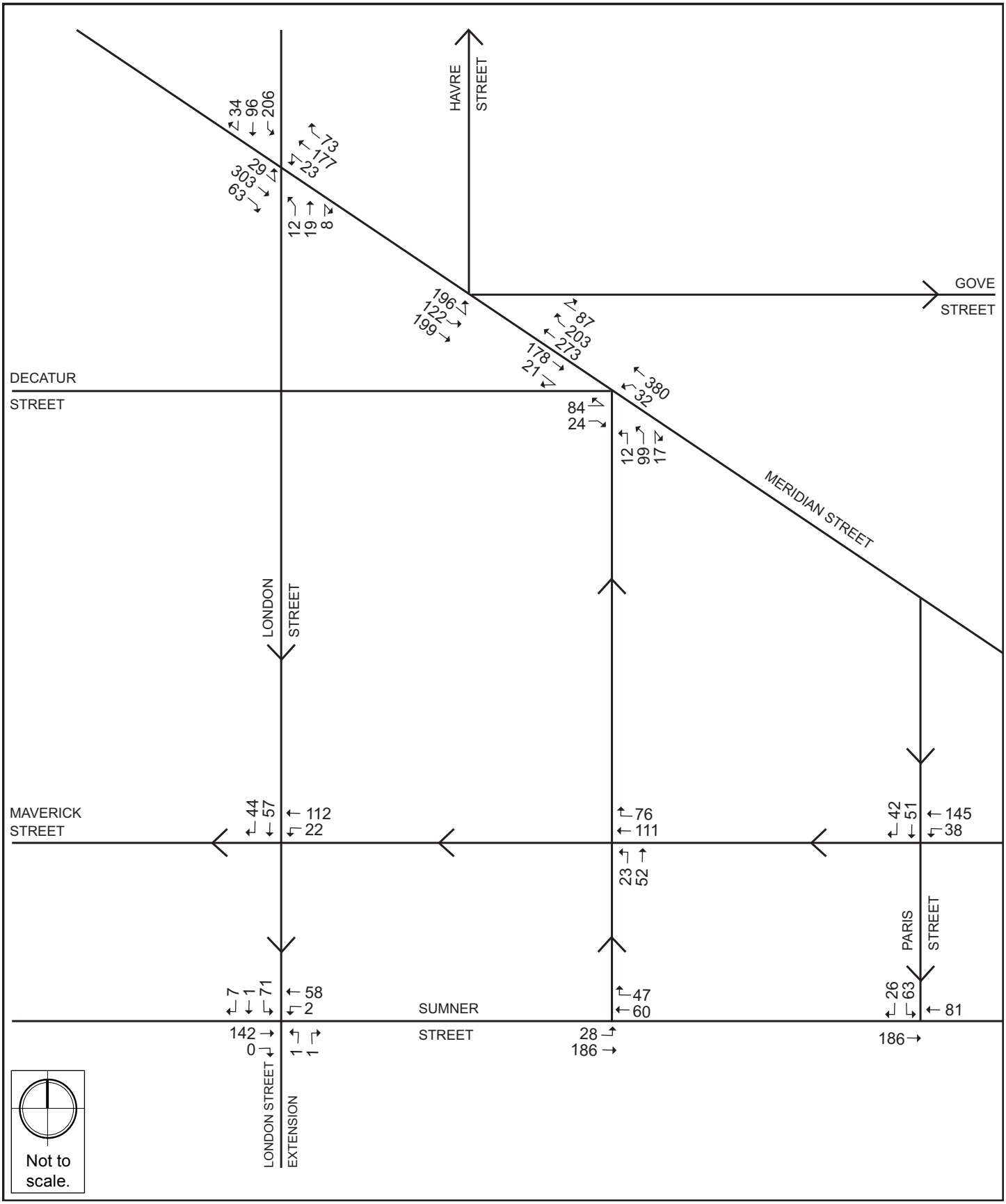


East Boston, Massachusetts

Figure 4-4

Existing Conditions, Vehicular Traffic Volumes, AM Peak Hour

Source: Howard Stein Hudson, 2017

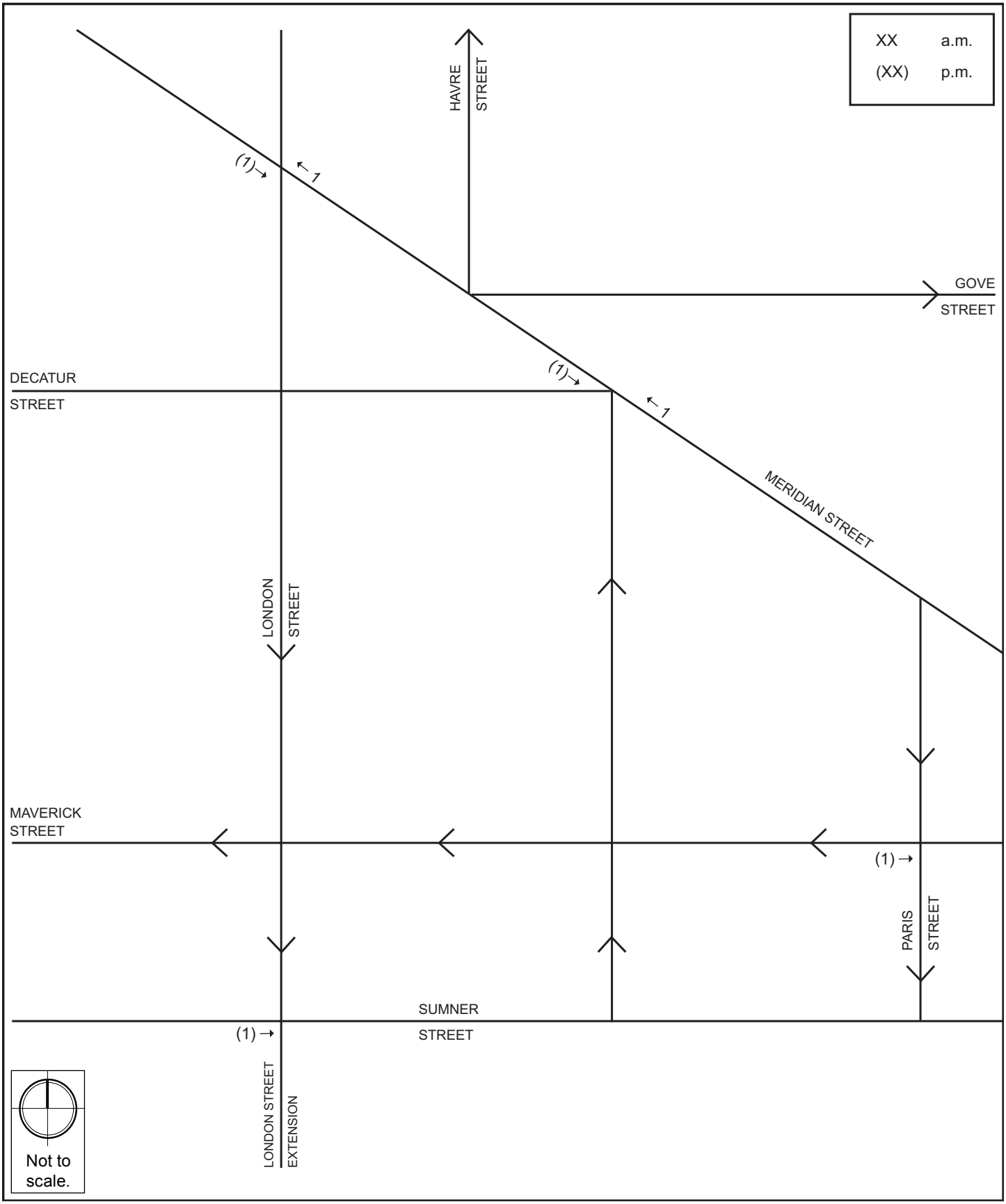


East Boston, Massachusetts

Figure 4-5

Existing Conditions, Vehicular Traffic Volumes, PM Peak Hour

Source: Howard Stein Hudson, 2017



East Boston, Massachusetts

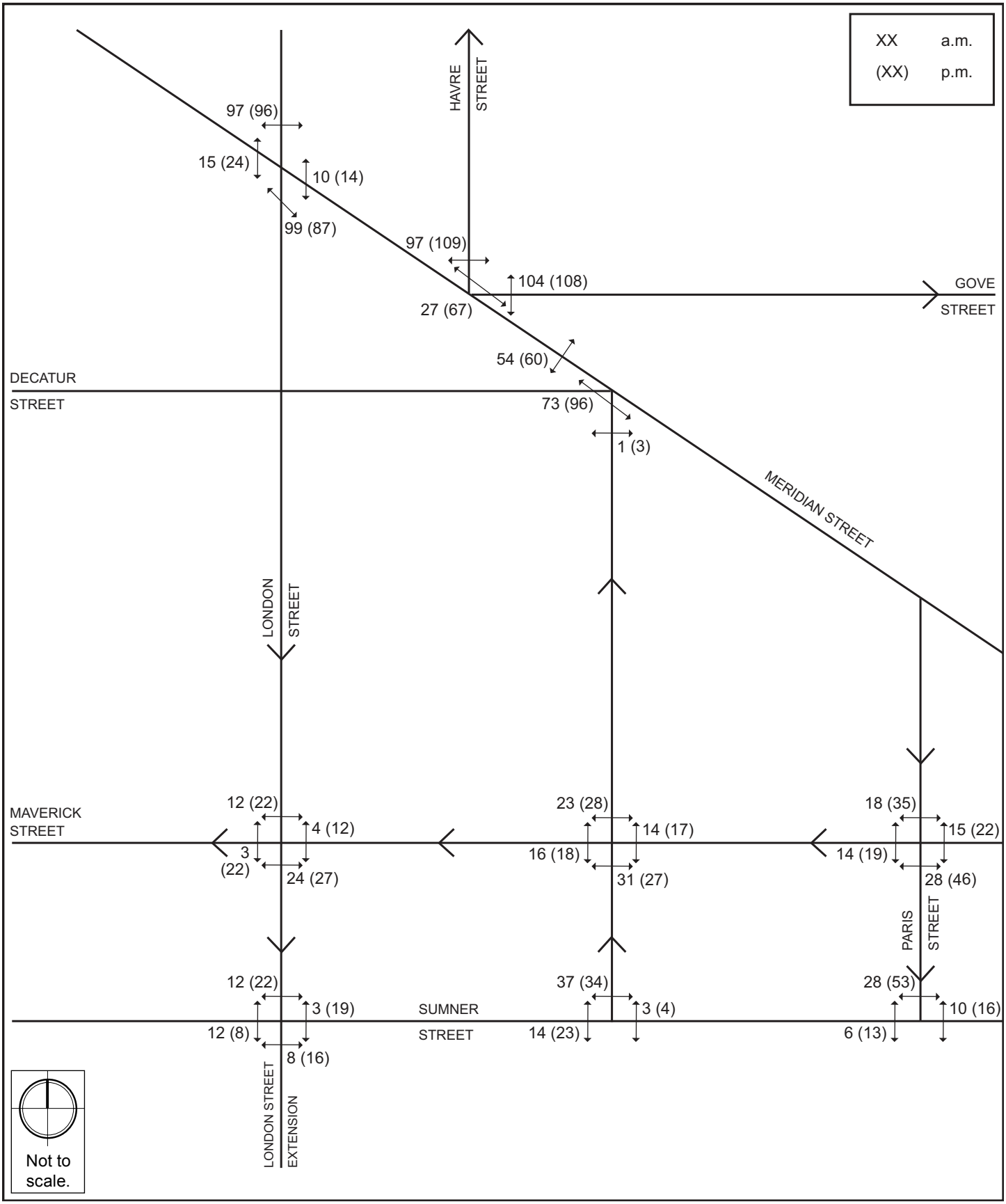
Figure 4-6

Existing Conditions, Bicycle Volumes, PM Peak Hour

Source: Howard Stein Hudson, 2017

East Boston, Massachusetts

Figure 4-7
Hubway Locations
Source: Howard Stein Hudson, 2017



East Boston, Massachusetts

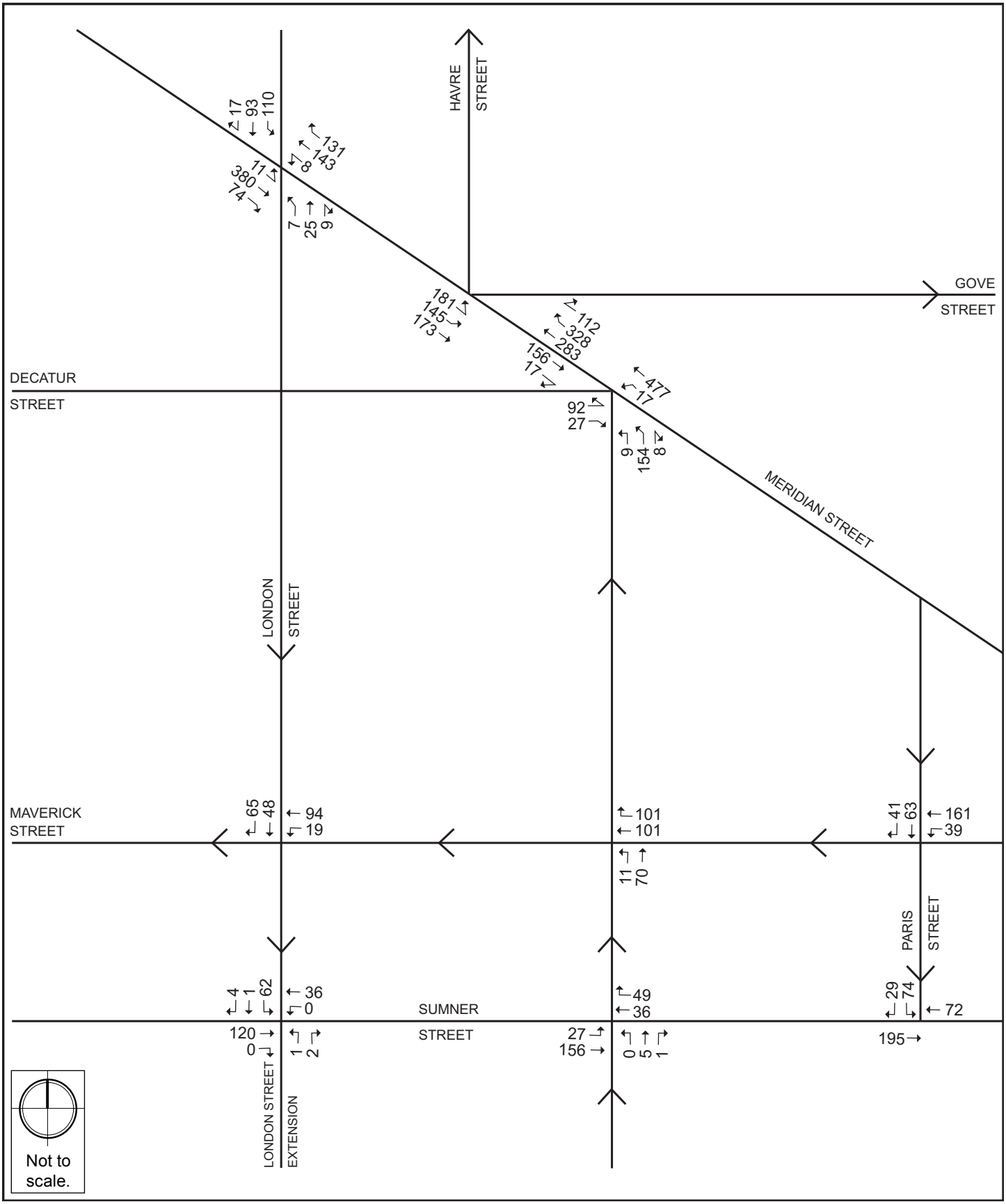
Figure 4-8

Existing Conditions, Pedestrian Volumes, AM and PM Peak Hours

Source: Howard Stein Hudson, 2017

Figure 4-9
Existing Transit Service
Source: Howard Stein Hudson, 2017

Figure 4-10
Background Project Locations
Source: Howard Stein Hudson, 2017

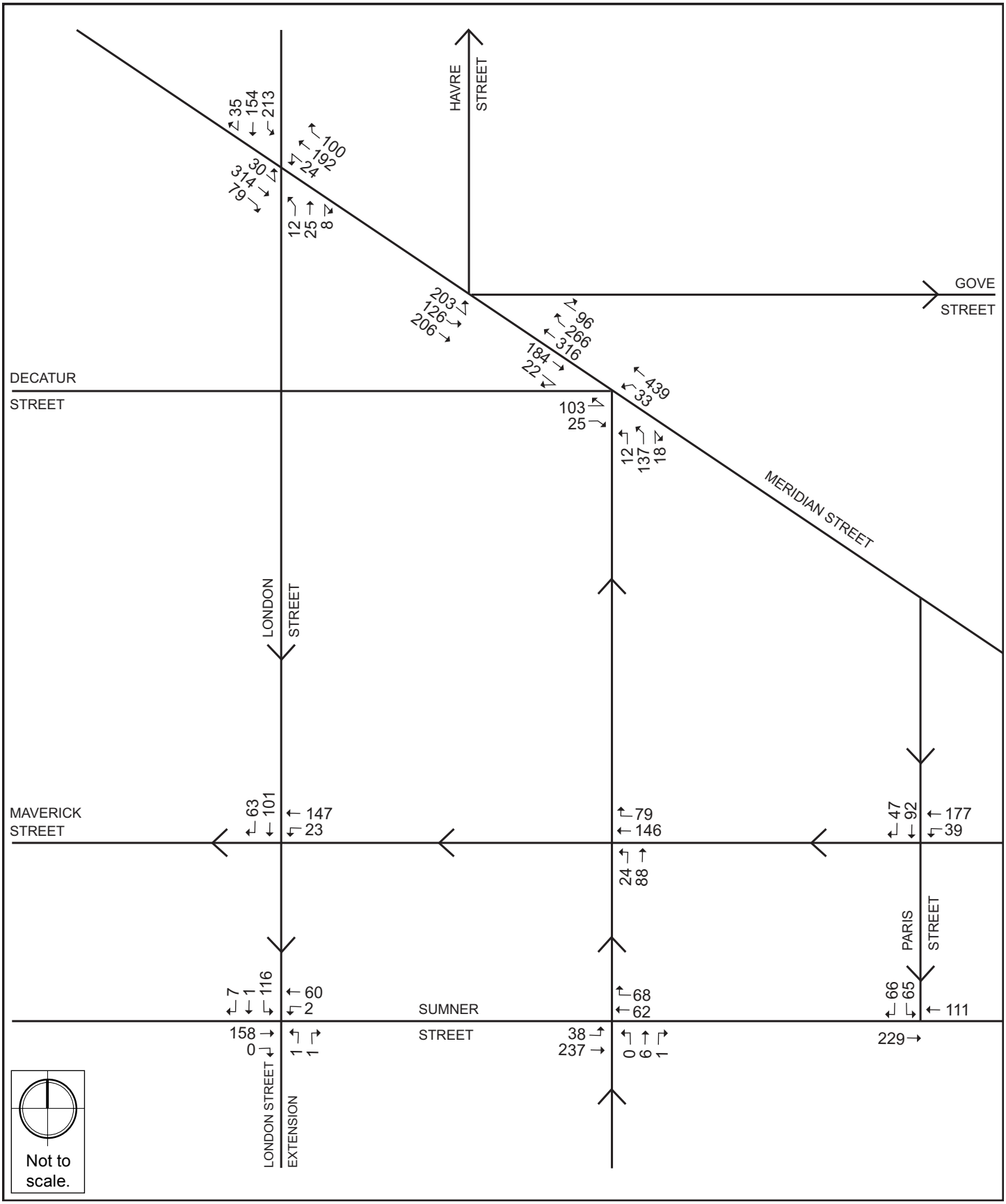


East Boston, Massachusetts

Figure 4-11

No-Build (2023) Condition, Vehicular Traffic Volumes, AM Peak Hour

Source: Howard Stein Hudson, 2017



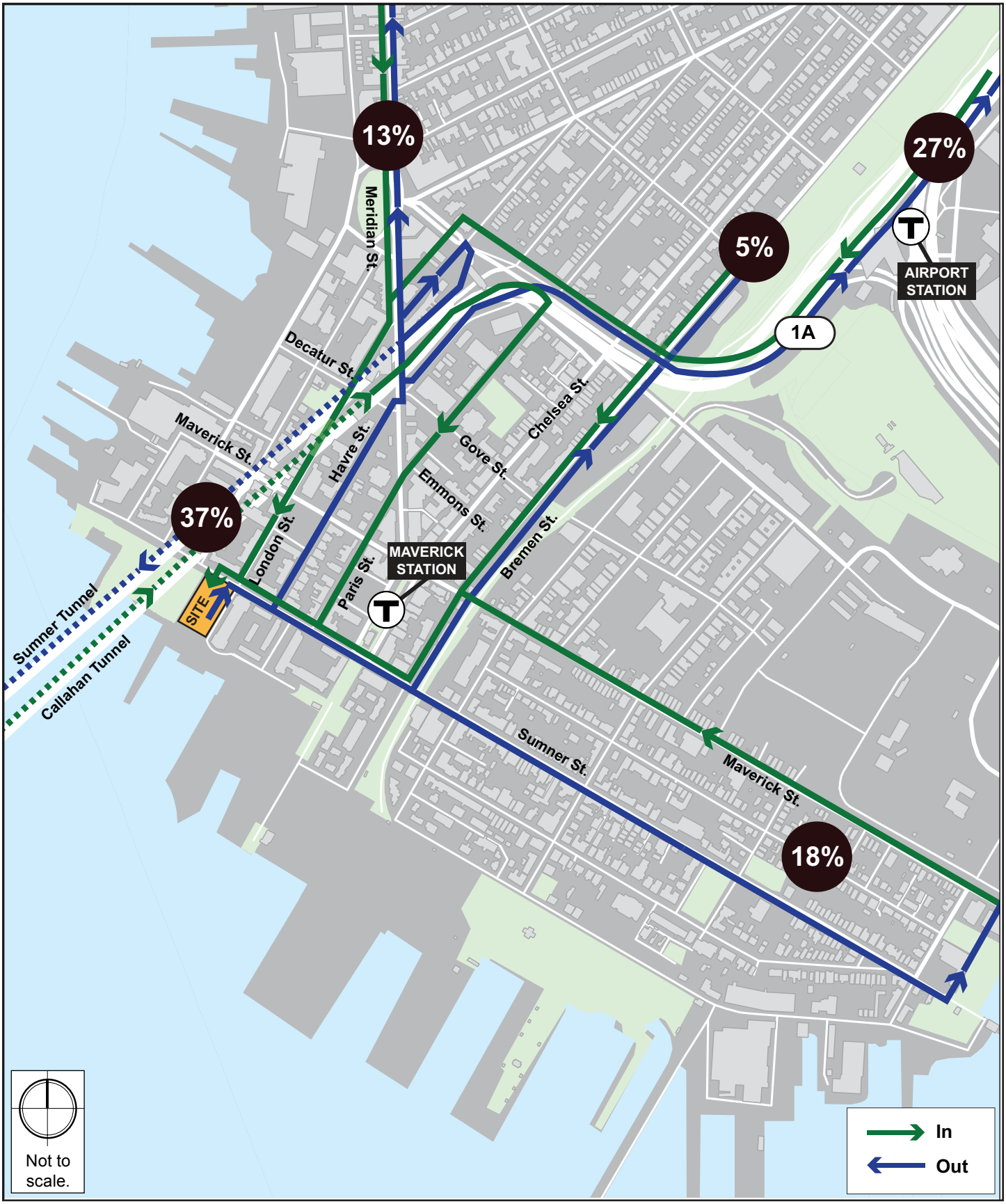
East Boston, Massachusetts

Figure 4-12

No-Build (2023) Condition, Vehicular Traffic Volumes, PM Peak Hour

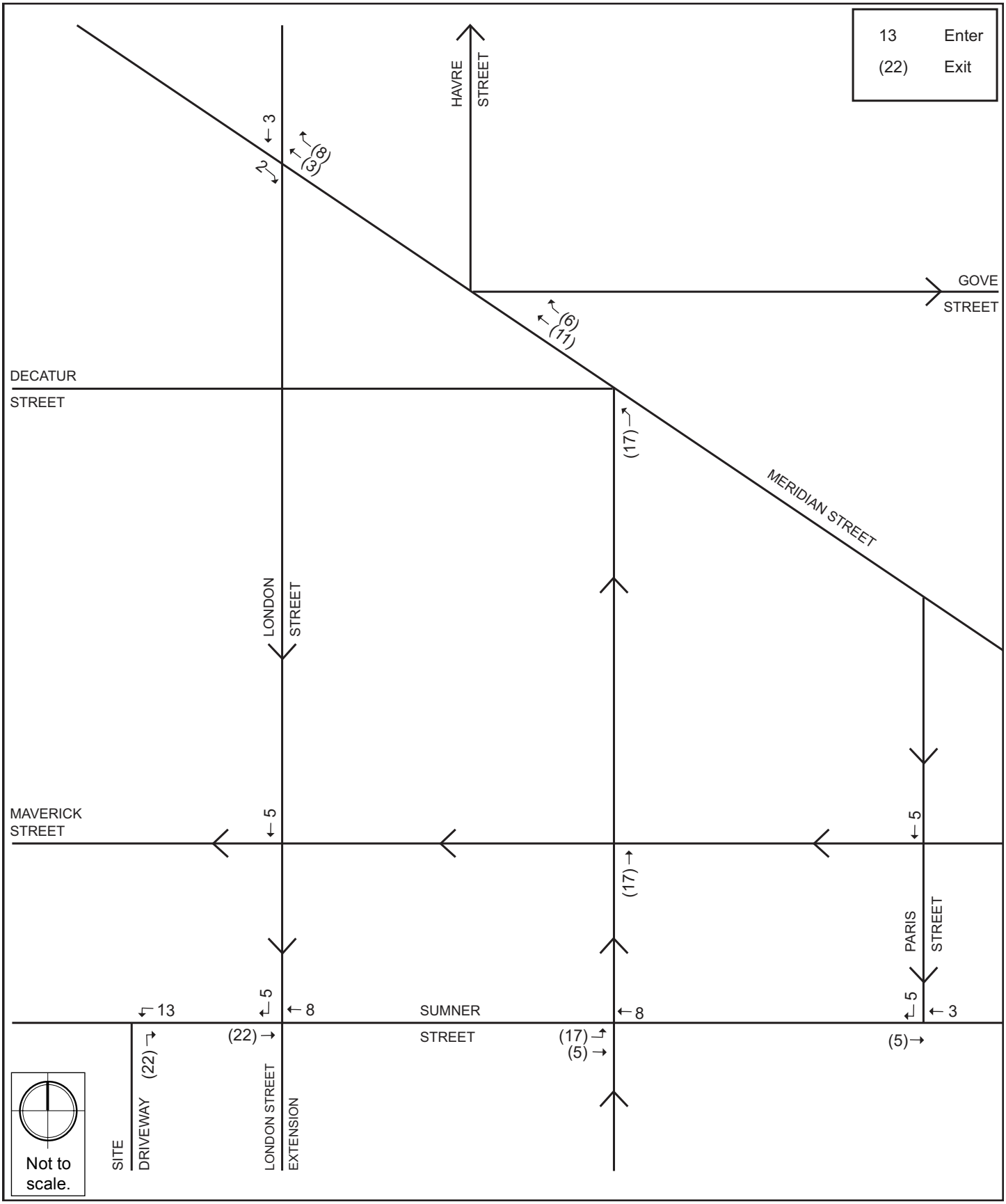
Source: Howard Stein Hudson, 2017

Figure 4-13
Site Plan
Source: Copley Wolff Design Group, 2017



East Boston, Massachusetts

Figure 4-14
Trip Distribution
Source: Howard Stein Hudson, 2017

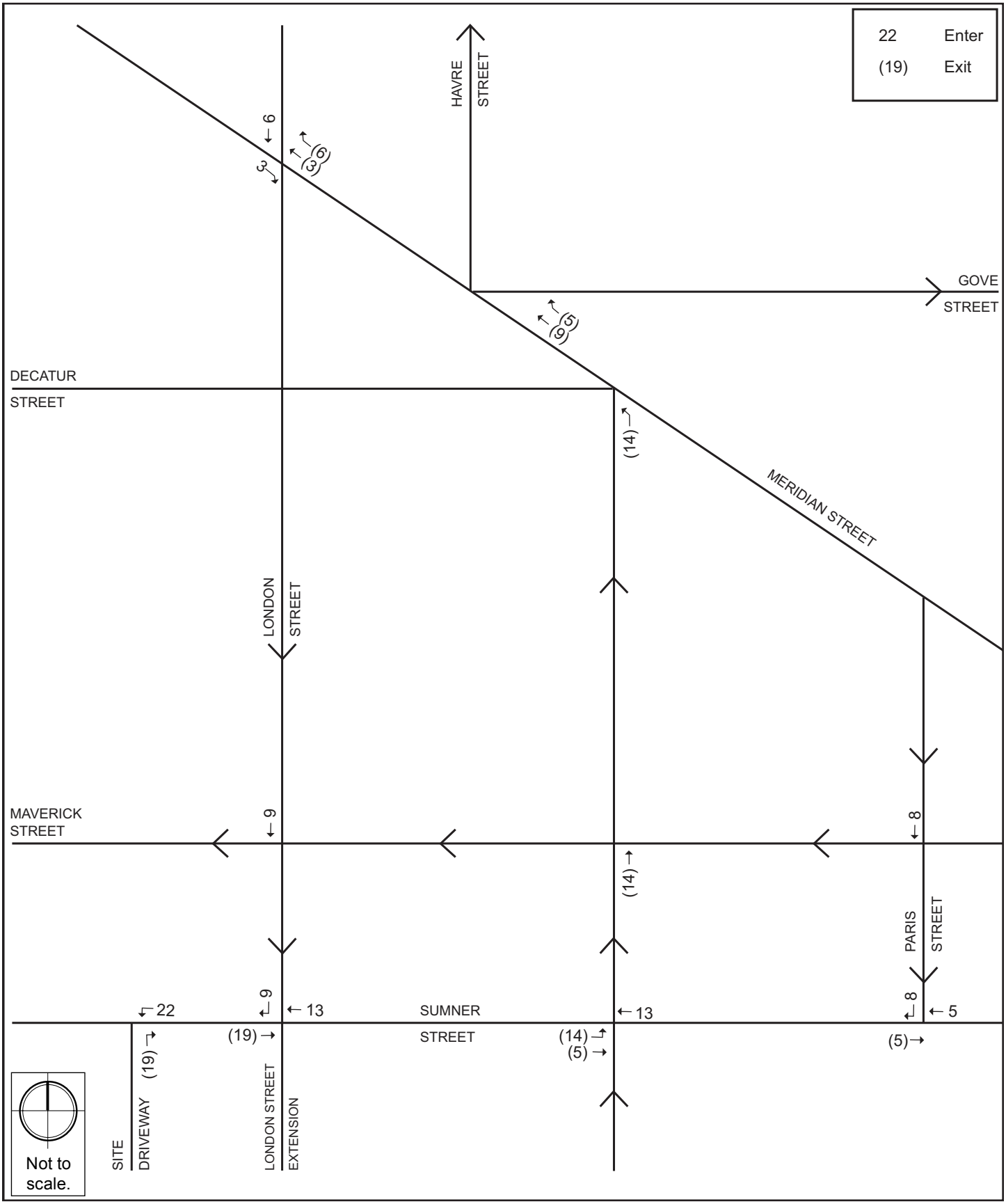


East Boston, Massachusetts

Figure 4-15

Project-Generated Trips, AM Peak Hour

Source: Howard Stein Hudson, 2017

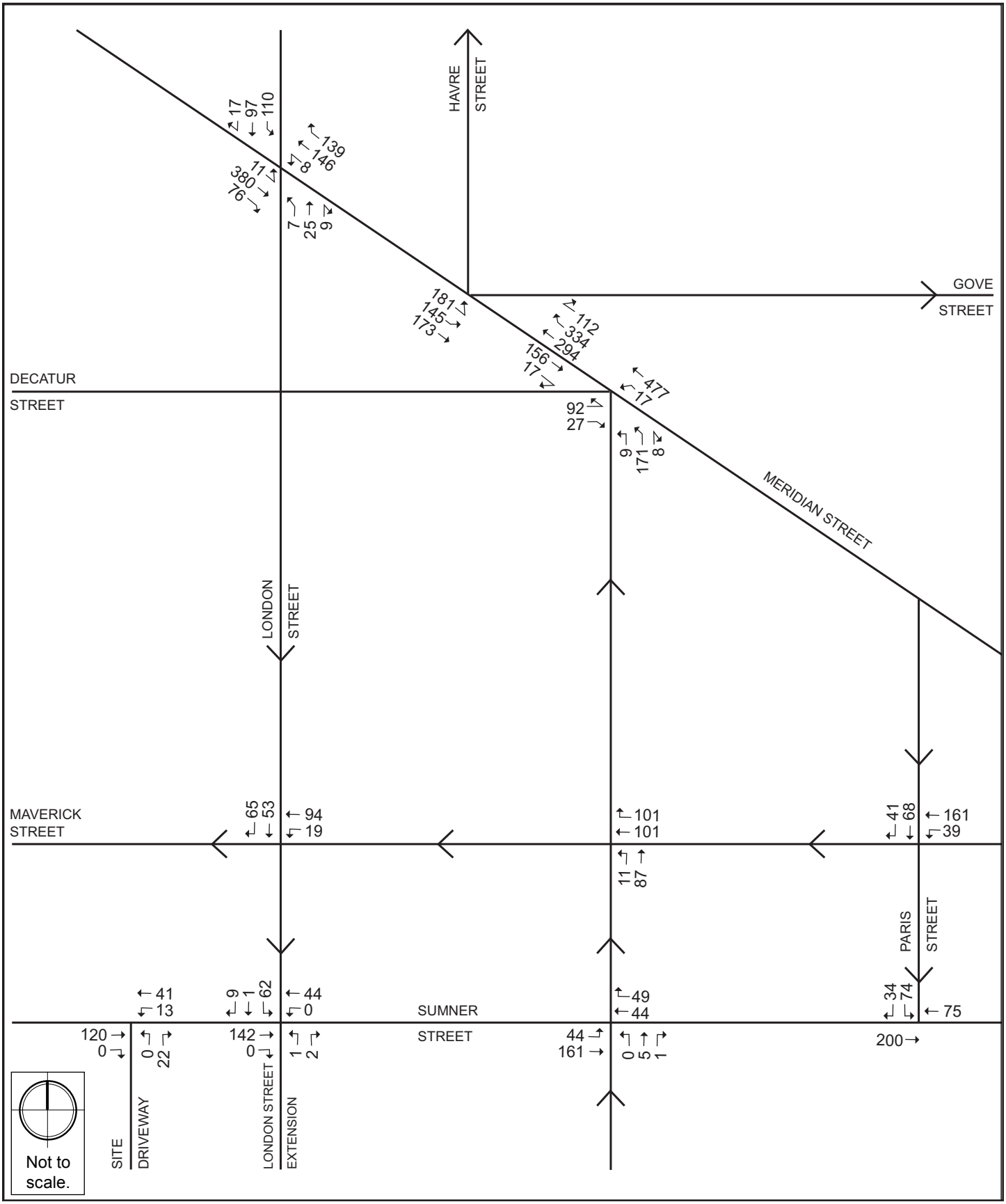


East Boston, Massachusetts

Figure 4-16

Project-Generated Trips, PM Peak Hour

Source: Howard Stein Hudson, 2017

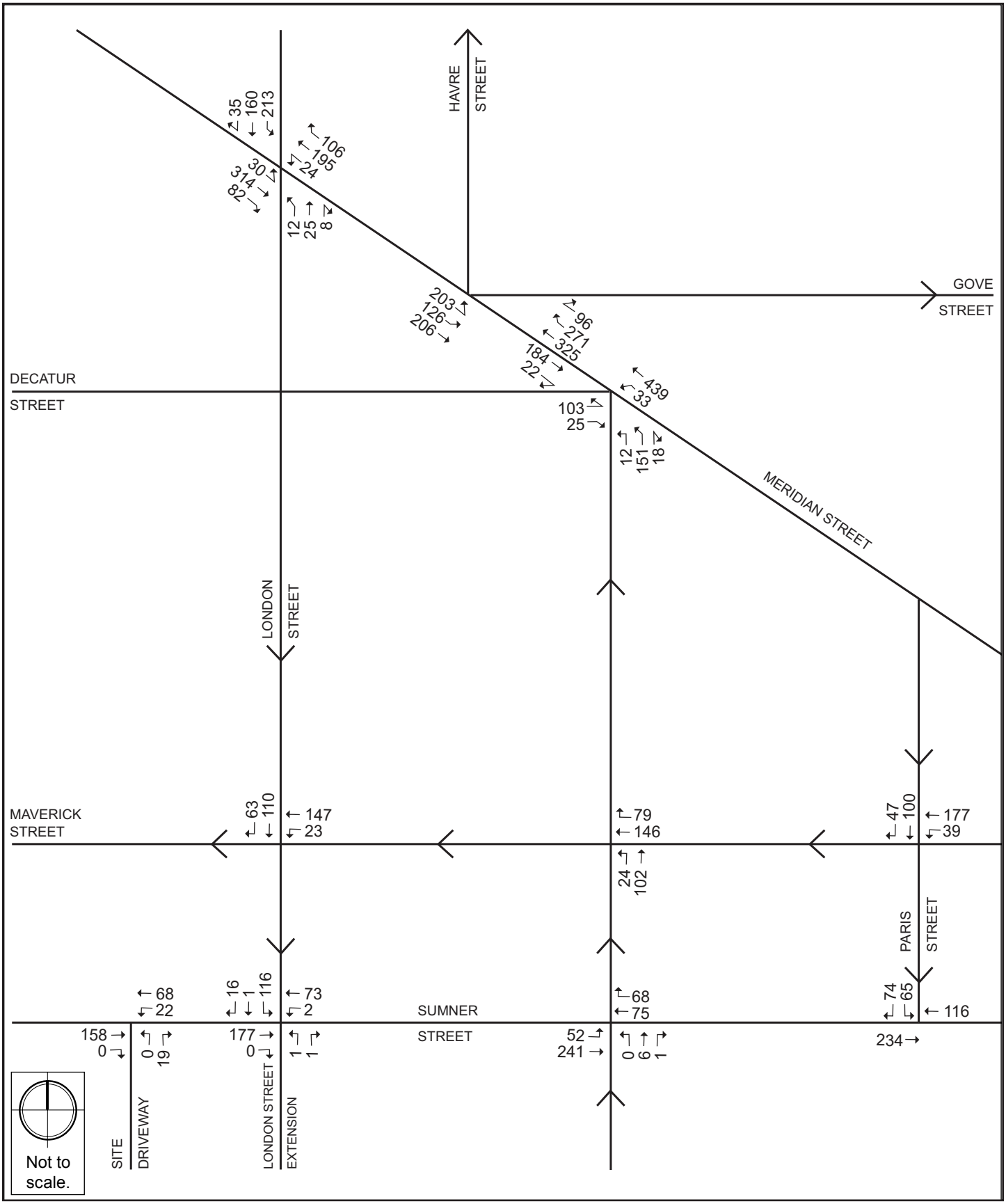


East Boston, Massachusetts

Figure 4-17

Build (2023) Condition, Vehicular Traffic Volumes, AM Peak Hour

Source: Howard Stein Hudson, 2017



East Boston, Massachusetts

Figure 4-18

Build (2023) Condition, Vehicular Traffic Volumes, PM Peak Hour

Source: Howard Stein Hudson, 2017

Chapter 5

INFRASTRUCTURE

CHAPTER 5: INFRASTRUCTURE

5.1 STORMWATER

5.1.1 EXISTING DRAINAGE CONDITIONS

The Project Site is currently vacant and contains areas of gravel, open space, and remnants of building foundations. Stormwater runoff from the site generally flows overland in a southerly direction and into Boston Harbor. According to record surveys, the Project Site used to contain several catch basins that discharged through an outfall to Boston Harbor along the existing bulkhead. It appears that this storm drain system has been abandoned.

The Project Site contains Urban Land; Urban Land, wet substratum; and Udorthents, wet substratum according to the Natural Resources Conservation Service's Soil Survey. The soils within the northerly portion of the site classified as Urban Land, which consists of excavated and filled land. The soils within the southerly portion of the site are classified as Udorthents. Areas of Udorthents generally consist of sandy and gravelly fill over highly decomposed herbaceous organic material.

5.1.2 PROPOSED DRAINAGE CONDITIONS

Runoff from impervious areas will be conveyed to structural stormwater best management practices that are sized to capture the required water quality volume of 0.5 inches of runoff times the total impervious area. This treated stormwater runoff will ultimately discharge to Boston Harbor.

5.2 SANITARY SEWAGE

The proposed development consists of a six story residential building, which will accommodate approximately 119 units with approximately 158 bedrooms. The building will also contain approximately 7,205 square feet of work share space.

Estimated sewerage flows for the project are based on the design flows provided in 310 CMR 15.203: System Sewage Flow Design Criteria as summarized in Table 5-1 below.

Table 5-1: Proposed Estimated Sewage Discharges

Proposed Use	Number of Units	Unit Flow (gpd)	Factored Average Daily Flow (gpd)
Apartments	158 Bedrooms	110 gpd/Bedroom	17,380
Workshare/Office	7,205 SF	75 gpd/1,000 SF	540
		Total	**17,920**

The estimated wastewater flow of 17,920 gallons per day (gpd) for the revised Project is a reduction over the estimated wastewater flow of 20,720 gpd from the originally proposed development in 2004.

As shown on Figure 5-1, there is an existing 24-inch x 30-inch sanitary sewer main in Sumner Street, which is owned and maintained by the Boston Water and Sewer Commission (BWSC). The proposed sewer service for the project will connect to this main at a location to be determined in consultation with the BWSC. The Proponent will work with the BWSC concerning participation in their 4:1 infiltration/inflow removal program.

Parking garage drainage will be conveyed to an oil/sand separator prior to discharging into the sanitary sewer system.

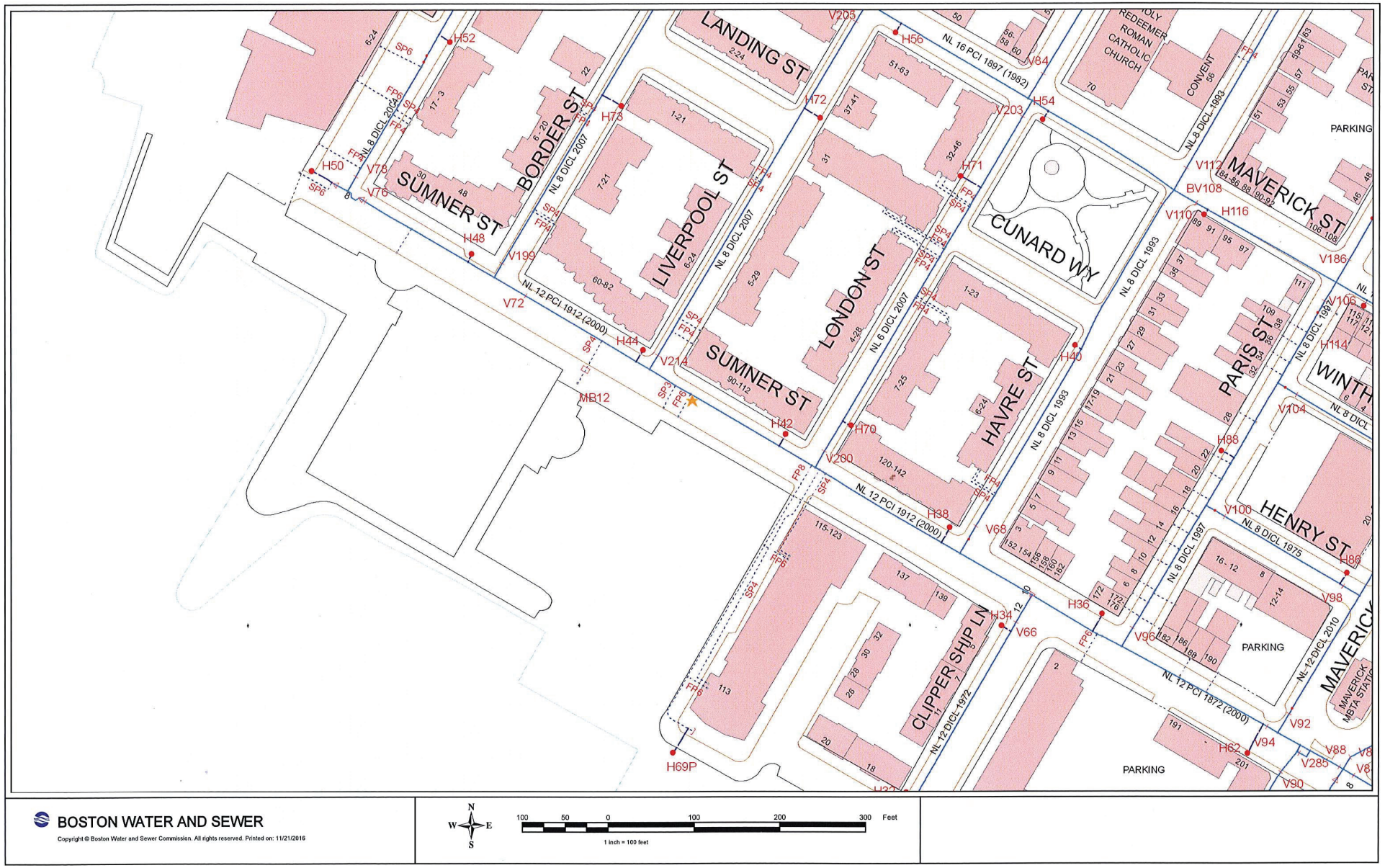
5.3 WATER SYSTEM

Water consumption for the Project is expected to be 19,710 gallons per day (gpd). This is a reduction of 3,430 gpd from the original project's (2004) estimated water usage of 23,140 gpd. The water use is based on the estimated wastewater flow plus and an added factor for system losses including the average requirements for the Project's cooling system, which will not be estimated until the detailed design phase.

Water service to the project will be provided through a new connection into the existing 12-inch water main in Sumner Street. This water main is owned and maintained by the BWSC. The size of the proposed service and location of the connection to the existing main in Sumner Street will be determined in consultation with the BWSC.

East Boston, Massachusetts

Figure 5-1
BWSC Sewer Map
Source: Boston Water and Sewer, 2017



East Boston, Massachusetts

Figure 5-2
BWSC Water Map
Source: Boston Water and Sewer, 2017

Chapter 6

WETLANDS

CHAPTER 6: WETLANDS

6.1 INTRODUCTION

The following section describes impacts from the Project to wetland resources within the Project Site. The Project has been designed to minimize impacts to the wetland resources. Under the Wetland Protection Act, the following wetland resources located on the Project Site are subject to protection: Land Under the Ocean, Coastal Beach, Land Subject to Coastal Storm Flowage, and Land Containing Shellfish. No inland wetland resource areas are present at the Project Site.

Impacts to wetland resource areas associated with the Project will result from the removal of a small section of timber bulkhead remains at the southeast end of the Project Site; the installation of a steel sheet bulkhead and wale at the northwest end of the Project Site; and reinforcing the shoreline with riprap protection. The Project will enhance wetland resources by adding a proposed partial living shoreline to connect to the Clippership Wharf Development's living shoreline to the east. See Figure 6-1, Existing Shoreline Plan and Sections and Figure 6-2, Proposed Shoreline Plan and Sections.

A more thorough description of the work proposed to take place in each resource area is described below.

6.1.1 LAND UNDER THE OCEAN

Land Under the Ocean (LUO) extends from the mean low water line (MLW) seaward to the boundary of the municipality's jurisdiction (310 CMR 10.25). No work will be done below the MLW; therefore, there will be no impact to the LUO resource area.

6.1.2 COASTAL BEACH

Coastal Beach is unconsolidated sediment subject to wave, tidal, and coastal storm action that forms the gently sloping shore of a body of salt water and includes tidal flats (310 CMR 10.27). Coastal Beach extends from the mean low water line landward to the dune line, coastal bank line, or the seaward edge of existing man-made structures, when these structures replace ones above lines, whichever is closest to the ocean.

At the Project Site, there is approximately 8,050 sf of Coastal Beach resource area. The Coastal Beach consists of primarily non-native material of various grain sizes and various types of debris, including, but not limited to, gravel, bricks, sheet metal, tires, and wooden piles. Engineered structures, including a dumped-stone revetment and a

dilapidated timber bulkhead, greatly reduce the Coastal Beach's natural functions for storm prevention, flood control, or protection of wildlife habitat.

The work to be performed within this area consists of cleaning the existing Coastal Beach and placement of riprap to stabilize shoreline. Approximately 3,190 sf of Coastal Beach will be impacted from the placement of riprap.

6.1.3 LAND SUBJECT TO COASTAL STORM FLOWAGE

Land Subject to Coastal Storm Flowage (LSCSF) means land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm or storm surge. LSCSF occurs on the entire Project Site. See Figure 6-3, FEMA Flood Insurance Rate Map.

6.1.4 LAND CONTAINING SHELLFISH

Land Containing Shellfish (LCS) is defined as LUO, tidal flats, rocky intertidal shores, salt marshes, and land under salt ponds when any such land contains shellfish (310 CMR 10.34). The project area has not been mapped by the Conservation Commission, the DEP, or the DMF as significant LCS.

In the original project from 2004, intertidal portions of the Project Site were sampled for shellfish, as defined in 310 CMR 10.34 (2). Approximately 10 small areas were sampled throughout the intertidal area. No live bivalves were encountered within the sediment of the sampled plots. The Project Site is not considered significant as LCS.

6.2 PROJECT IMACTS AND MITIGATION

The Project activities will comply with the performance standards defined in the state wetland regulations at 310 CMR 10.25, LUO; 310 CMR 10.26, Designated Port Area; 310 CMR 10.27, Coastal Beach; and 310 CMR 10.30, Land Containing Shellfish. The regulations do not contain performance standards for LSCSF.

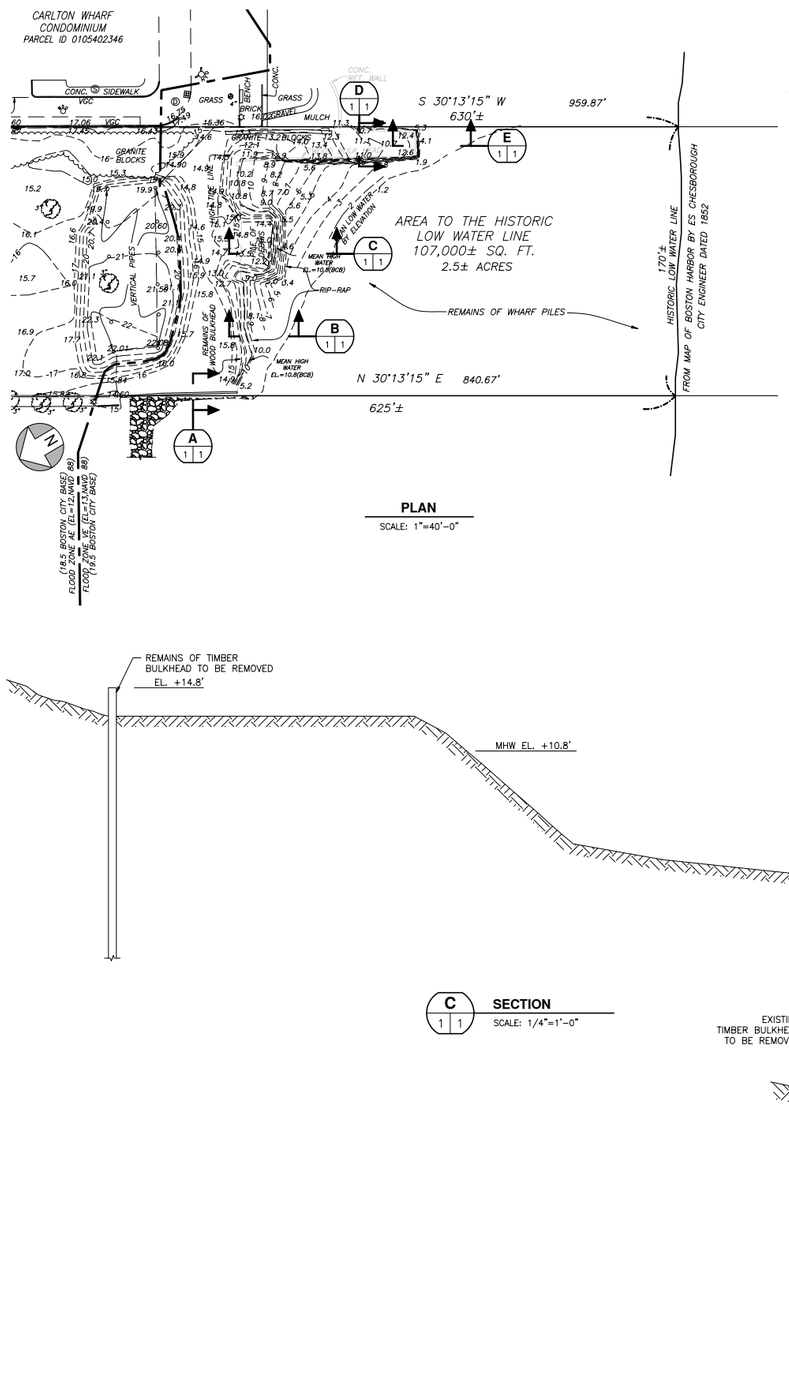
6.2.1 LAND UNDER OCEAN (310 CMR 10.25)

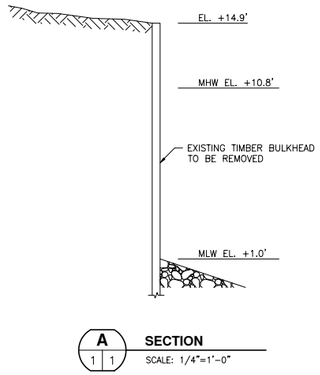
The proposed activities will not result in increased flooding or erosion caused by an increase in the height or velocity of waves impacting the shore. Sediment transport processes that would increase flood or erosion hazards by affecting the natural replenishment of beaches will not be significantly impacted.

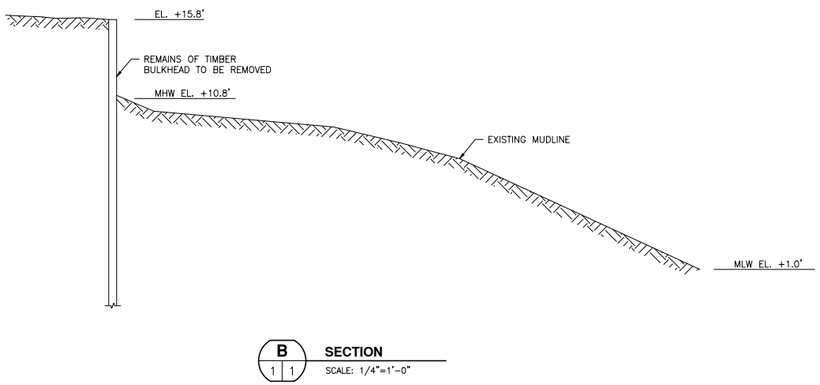
Only temporary impacts to water quality will occur during the construction period, and the Proponent will use appropriate best management practices (BMPs), such as a silt curtain, to minimize temporary impacts to water quality.

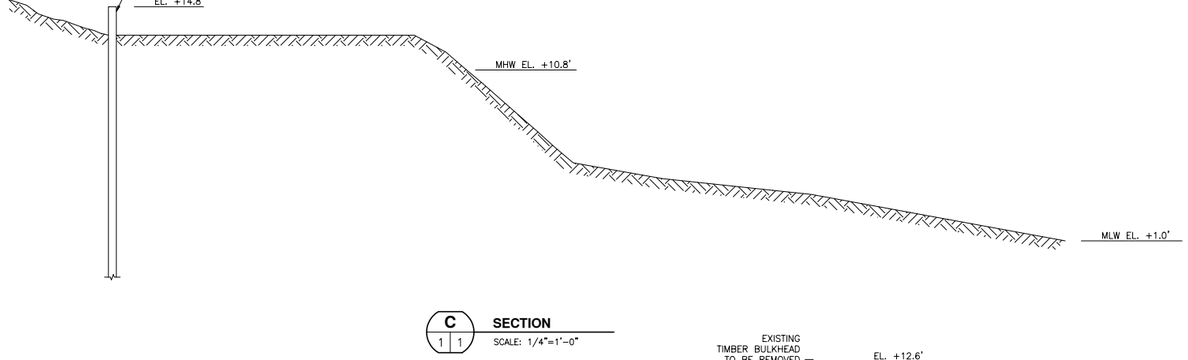
6.2.2 COASTAL BEACH (310 CMR 10.27)

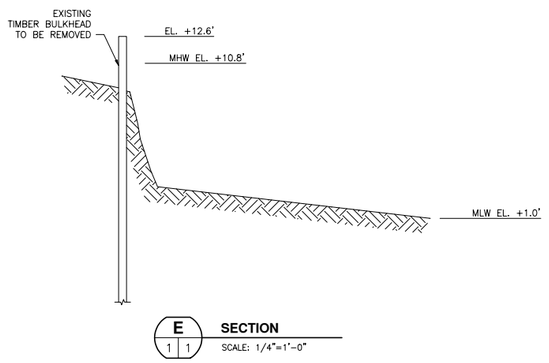
At the Project Site, the Coastal Beach consists primarily of non-native material of various grain sizes and debris. This beach is not significant in providing sediment to LUO. Coastal engineering structures along the shorelines adjacent to the Project Site provide damage prevention and flood control functions. Additionally, the man-made structures currently surrounding the Coastal Beach greatly its ability to perform its natural functions. Therefore, the Coastal Beach within the Project Site is not significant to storm damage prevention, flood control, or protection of wildlife habitat. The proposed riprap protection will provide significant shoreline protection and the partial living shoreline create new habitat within the littoral shelves.

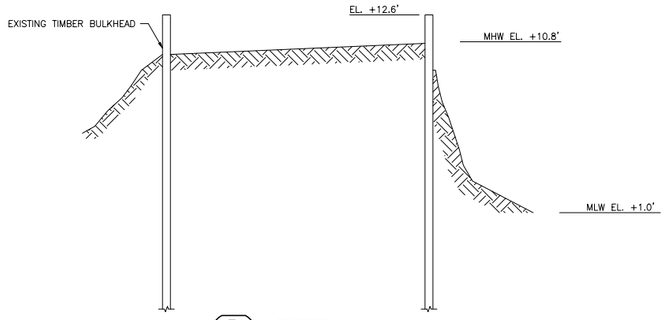












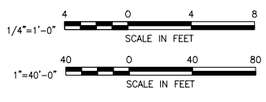
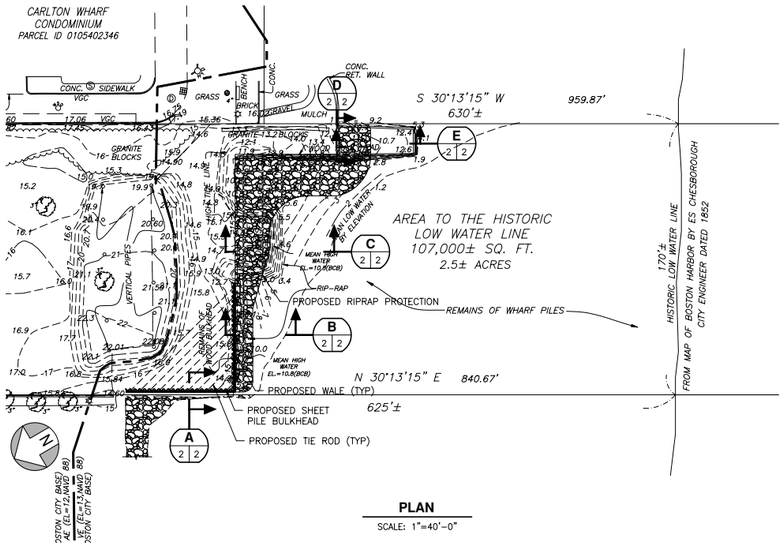


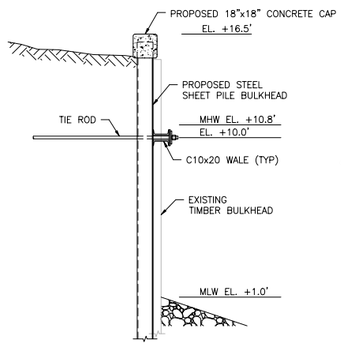
Figure 6-1

Existing Shoreline Plan and Sections

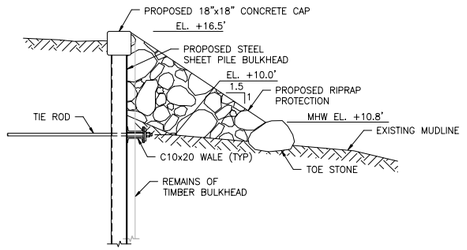
Source: Childs Engineering Corporation, 2017



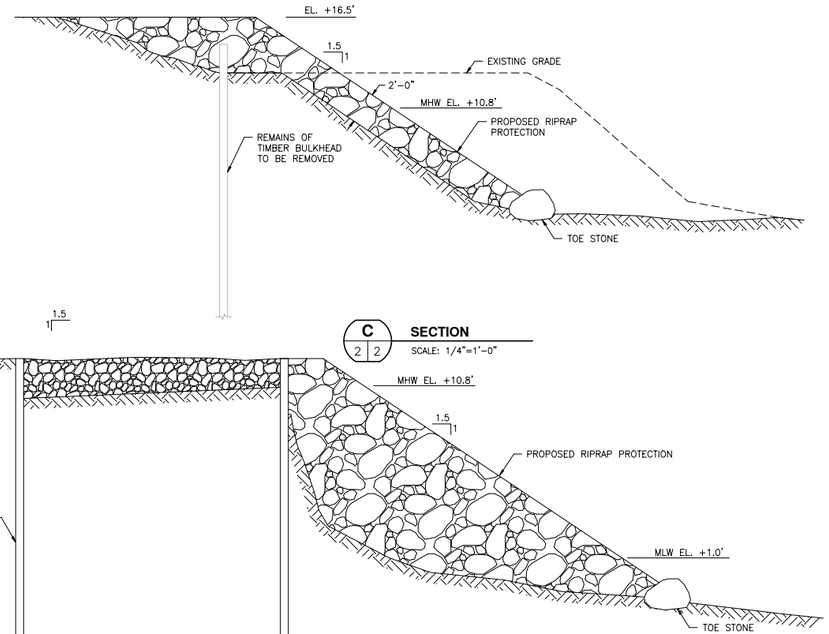
PLAN
SCALE: 1"=40'-0"



A 2 2 **SECTION**
SCALE: 1/4"=1'-0"

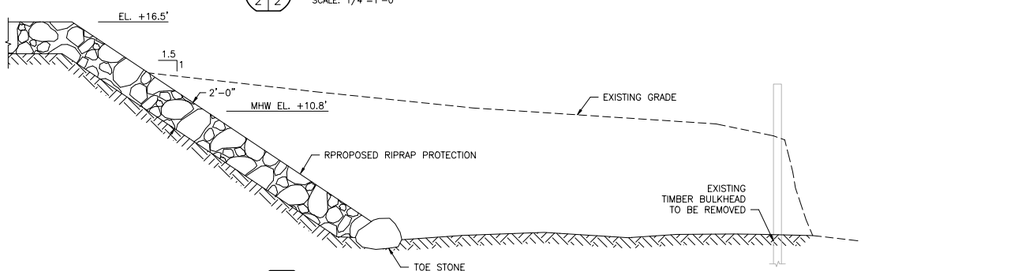


B 2 2 **SECTION**
SCALE: 1/4"=1'-0"

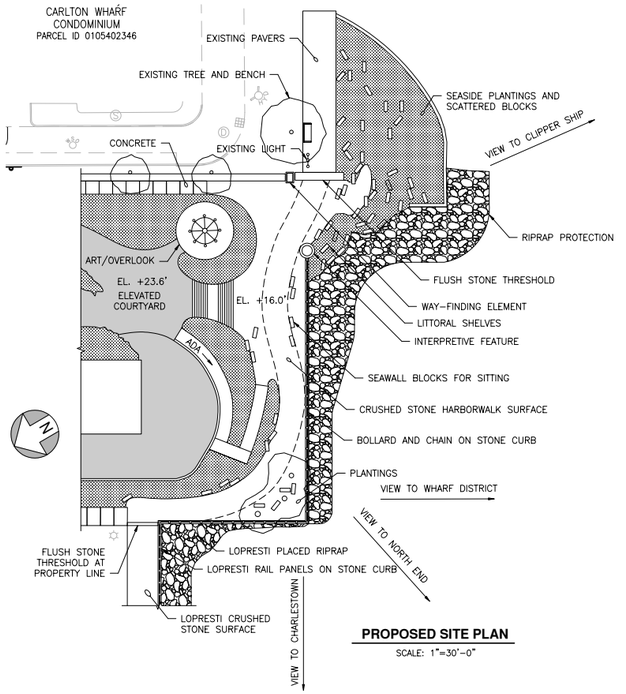


C 2 2 **SECTION**
SCALE: 1/4"=1'-0"

D 2 2 **SECTION**
SCALE: 1/4"=1'-0"



E 2 2 **SECTION**
SCALE: 1/4"=1'-0"

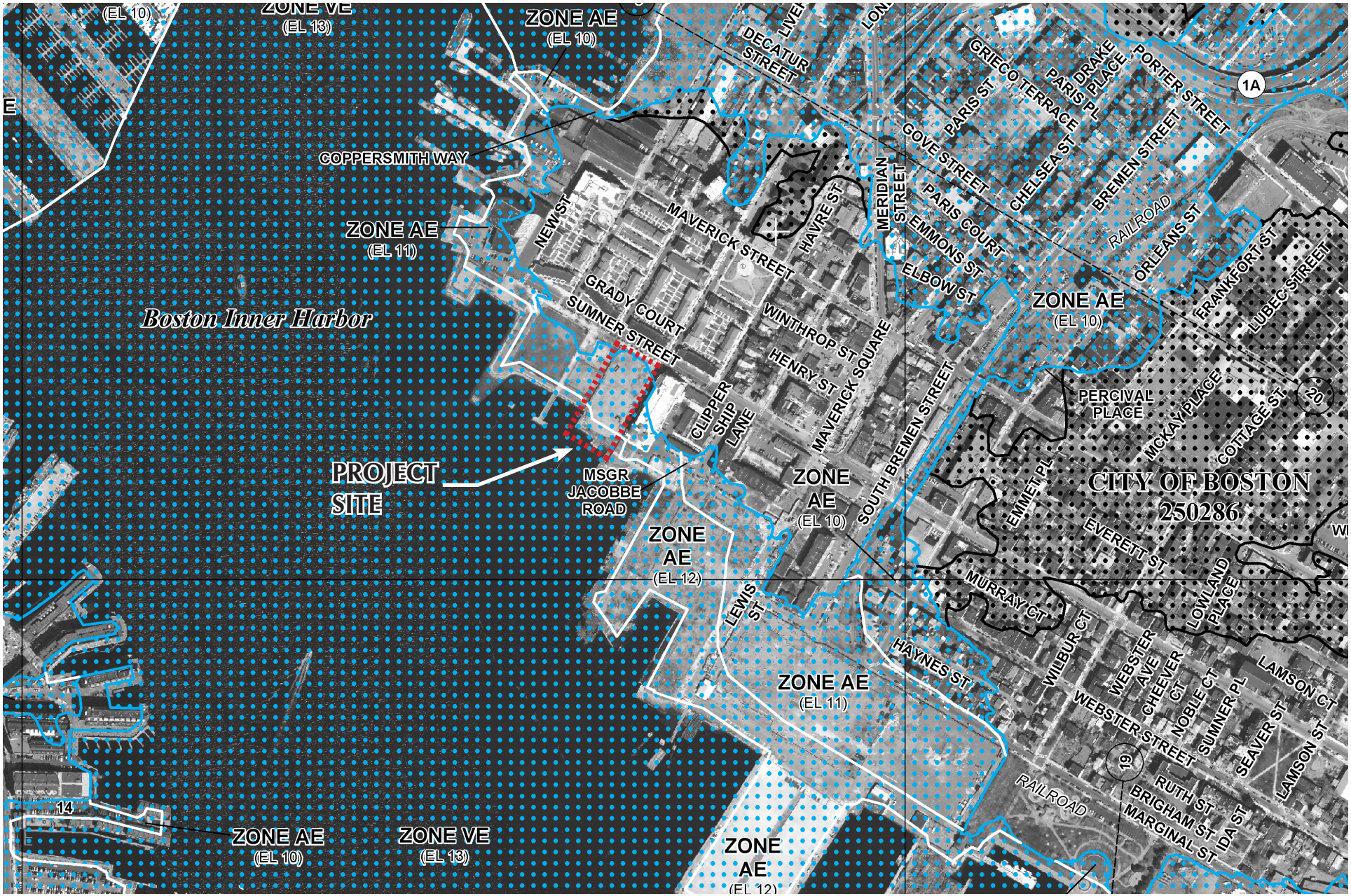


PROPOSED SITE PLAN
SCALE: 1"=30'-0"

1/4"=1'-0" 4 0 4 8 SCALE IN FEET

1"=40'-0" 40 0 40 SCALE IN FEET

Figure 6-2
Proposed Shoreline Plan and Sections
Source: Childs Engineering Corporation, 2017



East Boston, Massachusetts

Figure 6-3

FEMA Flood Insurance Rate Map

Source: Federal Emergency Management Agency, 2016

Chapter 7

TIDELANDS

CHAPTER 7: TIDELANDS

This chapter addresses the Project's location in tidelands and its compliance with DEP's Waterways Regulations under 310 CMR 9.00.

7.1 INTRODUCTION

The Project is located on a 2.5-acre site on the south side of Sumner Street along Boston Inner Harbor and includes approximately 1.5 acres of upland and 1.0 acres of watersheet. The Project Site is under the jurisdiction of the Department of Environmental Protection's (DEP) Waterways Program and its Chapter 91 regulations, as modified by the East Boston Municipal Harbor Plan (the "MHP").

Under the Chapter 91 regulations, certain use and dimensional requirements may be waived if a local municipality has developed and received state approval of alternative requirements through a municipal harbor plan. The Boston Redevelopment Authority, with the Boston Municipal Harbor Planning Advisory Committee, finalized Part 1 of the MHP in February 2002. The Secretary of Environmental Affairs approved the MHP on July 15, 2002. The MHP undertook a detailed evaluation of analyzing the potential build out of the Project Site to identify the appropriate Chapter 91 dimensional and use substitutions and required offsets.

7.2 CHAPTER 91 JURISDICTION

The upland portion of the Project Site is comprised entirely of filled, formerly flowed tidelands. The original Historic High Water Mark (HHWM) is approximately coincident with Sumner Street and the original Historic Low Water Mark (HLWM) is located seaward of the current mean high water line. Both the HHWM and HLWM are based on the 1852 Chesbrough Map. See Figure 7-1, Chapter 91 Jurisdiction. The existing Mean High Water (MHW) on the Project Site runs along the outer perimeter of filled land and piers. The entire upland area is considered filled Private Tidelands.

7.2.1 PROJECT SHORELINE

The project shoreline, which is used to establish the extent of the water-dependent use zone (WDUZ), will be consistent with MHW in accordance with the Waterways Regulations.

7.3 PRIOR WATERWAYS AUTHORIZATIONS

Early 1800s East Boston waterfront maps show the natural shoreline while in the mid-1800s, historic maps show the building of wharves and piers on the Project Site and in the vicinity. The following table summarizes prior Chapter 91 authorizations on the parcel.

Table 7-1: Prior Authorizations

License No.	Date	Licensee	Description
2340	1899	John Lynch	Filing in a portion of the site, constructing a pile supported platform, and constructing a pile-supported pier.
3227	1907	John Lynch	Extend pier to the US pierhead line.
11858	9/28/2007	Boiler Works LLC	Remove 3 existing buildings and construct a building up to 8 stories tall, construct two freestanding 1-story buildings, construct a 30-slip marina, remove existing timber piles, decking, and bulkhead, and provide a more regular shoreline, open space, walkways, driveways, and parking.

Source: DEP, 2017

7.4 COMPLIANCE WITH CHAPTER 91 REGULATIONS

The Project is nonwater-dependent, pursuant to 310 CMR 9.12(4) of the Waterways regulations, because it consists of a mixed-use residential and commercial development. As stated in MGL Chapter 91, Section 18, "no structure or fill for a nonwater-dependent use of tidelands may be authorized unless a written determination by the Department [of Environmental Protection] is made following a public hearing that said structures or fill shall serve a proper public purpose and that said purpose shall provide a greater public benefit than detriment to the rights of the public in said tidelands..." Pursuant to 310 CMR 9.31(2)(b) of the Waterways regulations, DEP presumes that the referenced requirement is met if the Project complies with the nonwater-dependent use standards of 310 CMR 9.51-9.53, and is consistent with the policies of the Massachusetts Office of Coastal Zone Management.

The following sections describe Project compliance with the existing, applicable Chapter 91 standards outlined in 310 CMR 9.00 and the applicable Chapter 91 substitute standards, and offsets contained in the MHP as modified in the approval by the Secretary of the Executive Office of Environmental Affairs.

The Project complies with the following standards of the existing Chapter 91 regulations.

7.4.1 310 CMR 9.31 PUBLIC PURPOSE

The Project is required to serve a proper public purpose pursuant to applicable Chapter 91 regulations, 310 CMR 9.31(2)(b), for nonwater-dependent use projects. The Project serves a proper public purpose by complying with the applicable standards of 310 CMR 9.51 and 9.52. As described in this chapter, the Project complies with the requirements for nonwater-dependent facilities of private tenancy, facilities of public accommodation, water-dependent use zone, open space, and building height.

7.4.2 310 CMR 9.35 STANDARDS TO PRESERVE WATER-RELATED PUBLIC RIGHTS

In accordance with 310 CMR 9.35(1), a project must preserve any rights held by the Commonwealth in trust for the public to use tidelands, along with any public rights for access that are associated with such use. To comply with the applicable rights, this Project will preserve access to waterways and tidelands by complying with the provisions of 310 CMR 9.35(2) through (6). As described below, the Project complies with all the applicable provisions.

In accordance with 310 CMR 9.35(2), a project shall not interfere with the public's rights of navigation. There are no new uses or structures proposed that would affect navigation or free passage over and through the water. The Project will not impact the public's rights to navigation to and along the waterfront next to the Project Site, and therefore complies with this standard.

The standards at 310 CMR 9.35(3) require that the project not interfere with the public rights to fish or fowl from a vessel or on foot, or to walk or pass freely on Commonwealth Tidelands. The open space provided and new Harborwalk segment will provide on-foot passage and public access to and along the waterfront area, which will be inviting to the public and promotes public use. Therefore, the Project complies with the applicable standards for provision of the public's rights to tidelands.

The standards at 310 CMR 9.35(4) require that any water-dependent use project, which includes fill or structures for private use of Commonwealth Tidelands provide compensation for interfering with the Commonwealth's broad rights to use such lands for any lawful purpose. The Project is proposed for Private Tidelands, and therefore the provisions of this standard do not apply.

The standards at 310 CMR 9.35(5) require a long-term management plan for any project on tidelands that is accessible to the public. A management plan will be prepared after licensing that will define the hours of use, signage, and other conditions that support public use while minimizing conflict with other interests including the protection of private property and natural resources.

7.4.3 310 CMR 9.37 ENGINEERING AND CONSTRUCTION STANDARDS

The Project will comply with the standards of 310 CMR 9.37. The proposed building will be certified by a Registered Professional Engineer and will comply with all applicable safety regulations. The building, which is located within the FEMA 100-year flood zone, has been designed to account for periodic flooding and future sea level rise. Flood resilient measures, including elevating the ground floor, designing a floodproof garage, and locating utilities above the base flood elevation will be included as part of the Project.

7.4.4 310 CMR 9.51 CONSERVATION OF CAPACITY FOR WATER-DEPENDENT USE

In accordance with 310 CMR 9.51, a project shall not unreasonably diminish the Project Site's capacity to accommodate water-dependent use. The Project complies with the applicable standards for 310 CMR 9.51 as described below.

7.4.4.1 310 CMR 9.51(1) – NONWATER-DEPENDENT FACILITIES OF PRIVATE TENANCY

Pursuant to 310 CMR 9.51(1), nonwater-dependent Facilities of Private Tenancy must be developed in a manner that prevents significant conflict in operation between their users and those of any water-dependent facility, which can be reasonably expected to locate on or near the Project Site. The proposed building will have some facilities of private tenancy on the ground floor, but they will be located landward of the proposed facilities of public accommodation, which will be located along the waterfront, adjacent to the WDUZ.

7.4.4.2 310 CMR 9.51(3)(B) – FACILITIES OF PUBLIC ACCOMMODATION

In accordance with 310 CMR 9.51(3)(b), Facilities of Public Accommodation (FPAs) shall be located on pile supported structures on flowed tidelands and at the ground level of any filled tidelands within 100 feet of the Project Shoreline. The Project's proposed work share space meets the regulatory definition of an FPA since the space will be available for the use by the transient public for daily drop-in access or memberships of varying time periods. All of the proposed FPA space is located within 100 feet of the Project Shoreline. The total amount of FPA space provided, 7,200 sf, exceeds the amount required under the regulations by approximately 1,800 sf.

The MHP stipulates that FPAs shall establish the Project Site as a year-round locus of public activity. The Proponent's selection of waterfront work share space as its FPA meets the MHP requirement to draw the public to the Project Site and utilize public interior and exterior amenities. FPA space will be

located within 100 feet of MHW. See Table 7-2, FPA Calculations. See Figure 7-2, FPA Requirements.

Table 7-2: FPA Calculations

	FPAs (sf)
Required	5,400
Provided	7,200

7.4.4.3 310 CMR 9.51(3)(C) – WATER-DEPENDENT USE ZONE

Under the Chapter 91 regulations, the WDUZ runs parallel to the "project shoreline" and is equal to 25% of the distance from the "project shoreline" to the landward property line, and can be no less than 25 feet, and no more than 100 feet. Along the sides of piers or wharves, the WDUZ is equal to 15% of the width and no less than 10 feet.

As defined in the Chapter 91 regulations at 310 CMR 9.02, "project shoreline" is defined as "the high water mark, or the perimeter of any pier, wharf, or other structure supported by existing piles or to be replaced, whichever is farther seaward." For the Project Site, the MHP did not propose any changes to this definition. However, the Secretary's decision approving the MHP required the "project shoreline" be defined as mean high water unless "otherwise supported by an appropriate level of documentation during the Chapter 91 Licensing process". The Proponent has designed its Project to be compliant with DEP regulations based on the project shoreline as MHW.

The MHP includes a substitute provision that allows the WDUZ to be reconfigured, if the total area of the reconfigured WDUZ is equal to or greater than the area of the Chapter 91 compliant WDUZ. The MHP also stipulates that a minimum setback dimension of 75 feet must be maintained from the "project shoreline" (MHW), except for the corner of the shoreline in common with LoPresti Park, where a minimum setback of 40 feet is allowed. In the event a nonwater-dependent public activity structure is proposed at the end of the London Street Extension, the WDUZ is a minimum of 25 feet at this location. See Figure 7-3, Setback Requirements.

The proposed WDUZ for the Project ranges from 25 feet along the easterly portion of the Project Site at the Carlton Wharf property line, 75 feet on the southern portion of the Project Site, and 40 feet at the with LoPresti Park property line. The total area of the WDUZ is approximately 19,500 sf. No at-grade parking for public or private use is proposed within the WDUZ. See Figure 7-4, Water Dependent Use Zone.

7.4.4.4 310 CMR 9.51(3)(D) OPEN SPACE

In accordance with 310 CMR 9.51(3) (d), no more than 50% of the Project Site may be occupied by nonwater-dependent use buildings. The regulations require that, at a minimum, one square foot of open space be provided on the Project Site for each square foot of tidelands occupied by the footprint of buildings containing nonwater-dependent uses. The Project's uplands will consist of approximately 61,183 sf after construction.

Of the open space, approximately 92% is devoted to landscaped areas and public sidewalks and 8% is a private patio for the exclusive use of future building residents. The public plaza occupies approximately 34% of the total open space and the Harborwalk occupies approximately 21% of the total open space. The remaining space is devoted to landscaping and trees, which will enhance the provided open space on the Project Site. The open space will be open to public 24 hours a day, 7 days a week. The Licensee will be responsible for maintaining the open space. See Figure 7-5, Open Space Requirements. Table 7-3, Building Size and Open Space summarizes the proposed building footprint and provided open space.

Table 7-3: Building Size and Open Space

Building Use	Total Gross Floor Area (sf)	Ground Floor Footprint (sf)	Open Space (sf)	Open Space (%)
Residential/Amenity	118,414	14,399		
Coworking Space	7,200	7,200		
Total	125,614	21,599	39,584	65

7.4.4.5 310 CMR 9.52(1)(A) WATER-DEPENDENT ACTIVITY

The Chapter 91 regulations require that any nonwater-dependent Project provide one or more facilities that promote water-dependent activity on a Project Site, including waterfront walkways. The Project includes the construction of a critical new section of Harborwalk, which will serve to connect an existing Harborwalk along LoPresti Park, Carlton Wharf, and the future Clippership Wharf redevelopment. The Harborwalk will be open to the general public 24 hours a day, seven days a week.

7.4.4.6 310 CMR 9.52(1)(B) PEDESTRIAN ACCESS NETWORK

The proposed sidewalk on London Street Extension, the Harborwalk, and the LoPresti Park open space connection through the public open space enable

the Project to meet the pedestrian access network requirements under 310 CMR 9.52(1)(b).

7.5 COMPLIANCE WITH EAST BOSTON MHP

In addition to complying with the existing baseline Chapter 91 regulations described above, the Project also complies with the following relevant substitutions approved in the MHP and listed below under the Waterways regulations.

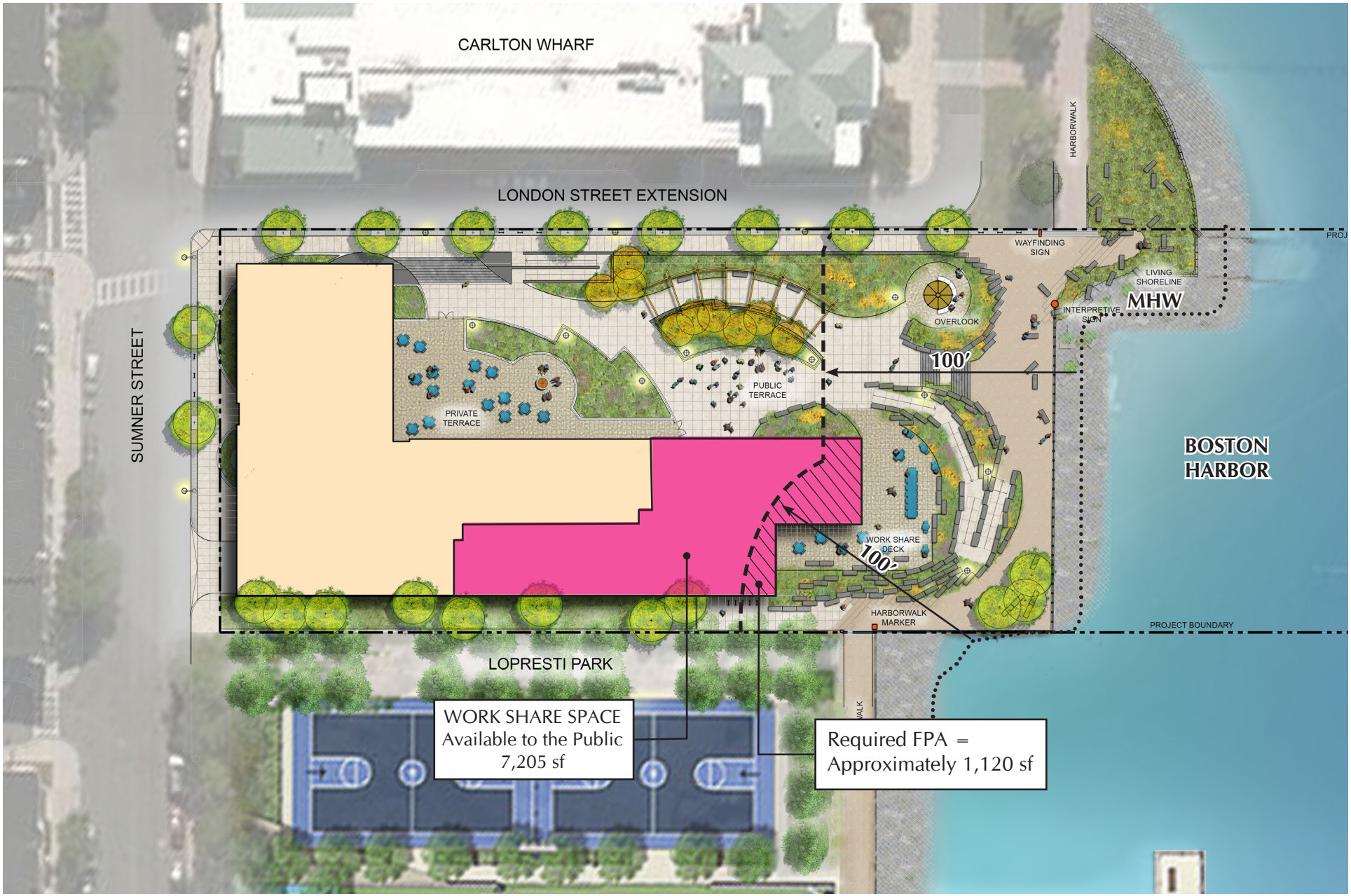
7.5.1 310 CMR 9.51(3)(E) HEIGHT

The MHP includes substitute Chapter 91 height limits. The height requirements applicable to the Project Site impose a general height limit of 80 feet (as measured by City of Boston zoning), a 65-foot street wall along Sumner Street, and a 65 foot height limit within 100 feet of MHW. Landward of 100 feet from MHW, building heights may increase at a ratio of one vertical foot for every two additional horizontal feet, up to a maximum height of 80 feet. Adjacent to the corner of LoPresti Park only, building heights may be 65 feet, increasing to a maximum of 80 feet at a slope of 2:1, starting at a distance of 40 feet from the high water mark. The building height zone was measured from MHW. See Figure 7-6, Height Requirements.

As an offset for the height substitution, the MHP requires the provision of one sf of open space for every two sf of "net new shadow" from the increased heights allowed under the EBMHP, as compared to what is allowed under Chapter 91.The Proponent's Project is a smaller building in height and mass than the building licensed in 2007 and will not have adverse shadow impacts on LoPresti Park and Sumner Street.

East Boston, Massachusetts

Figure 7-1
Chapter 91 Jurisdiction
Source: Cube 3 Studio, 2017



East Boston, Massachusetts

Figure 7-2
FPA Requirements
Source: Cube 3 Studio, 2017

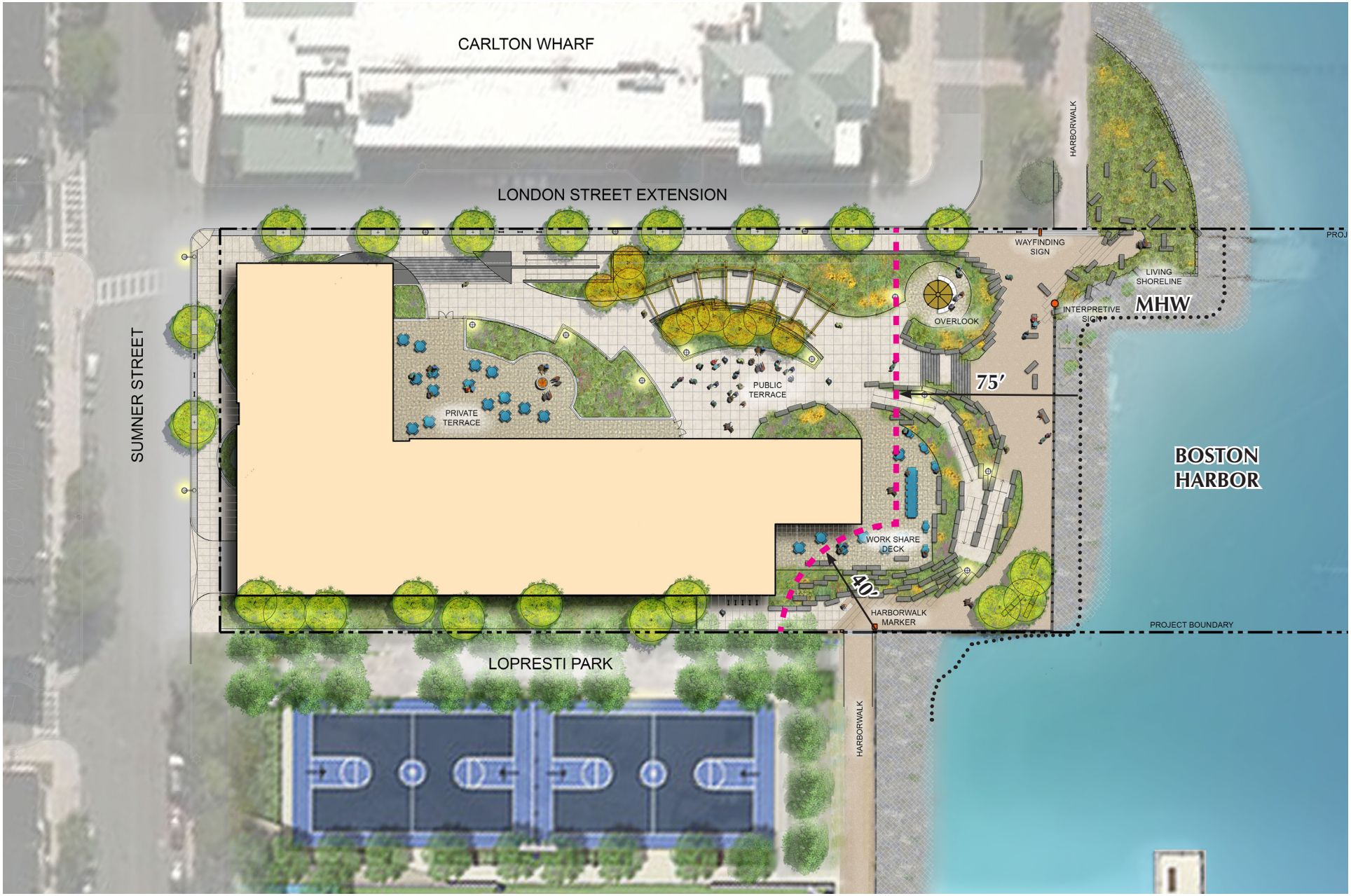


Figure 7-3
Setback Requirements
Source: Cube 3 Studio, 2017

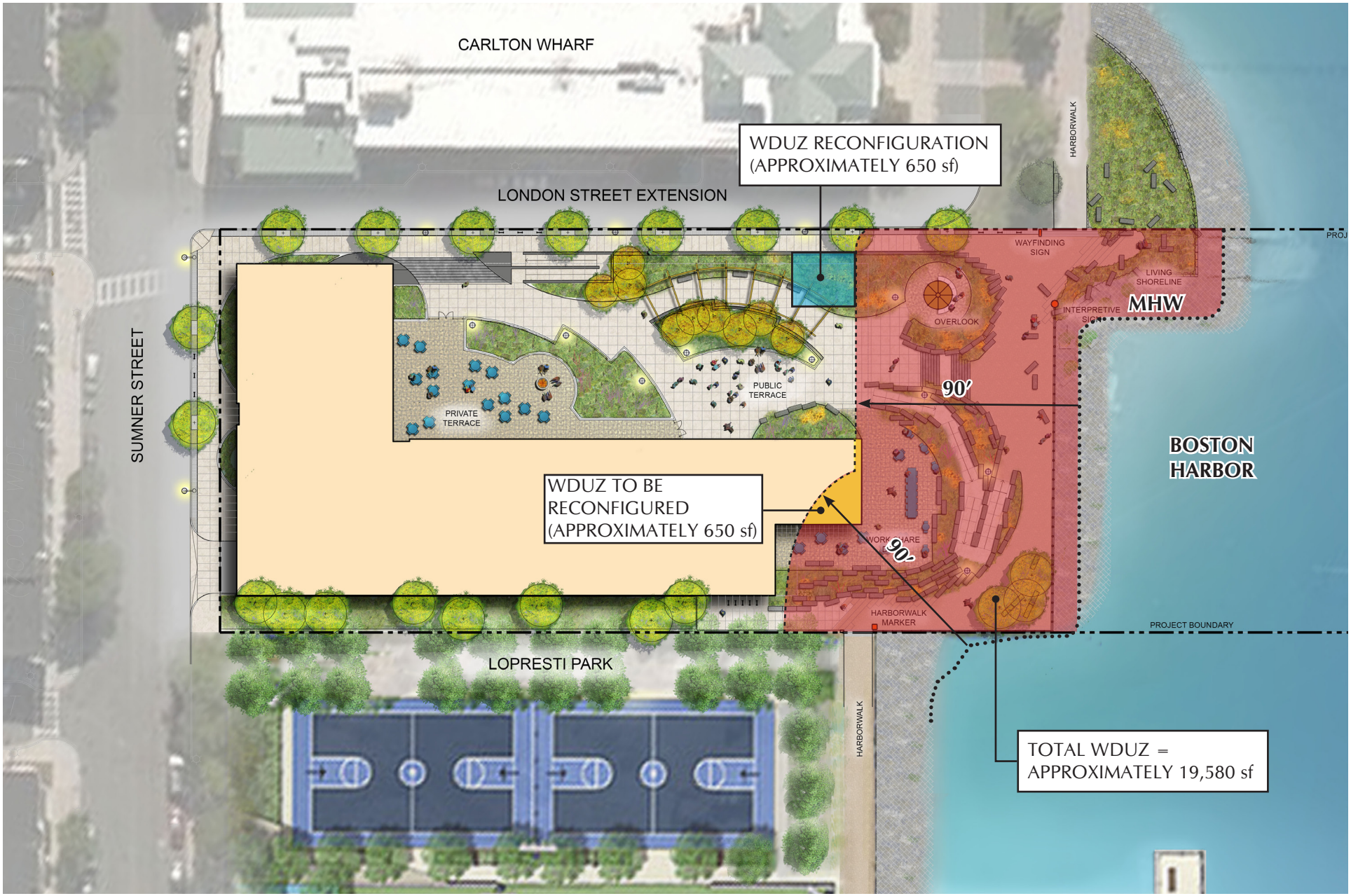
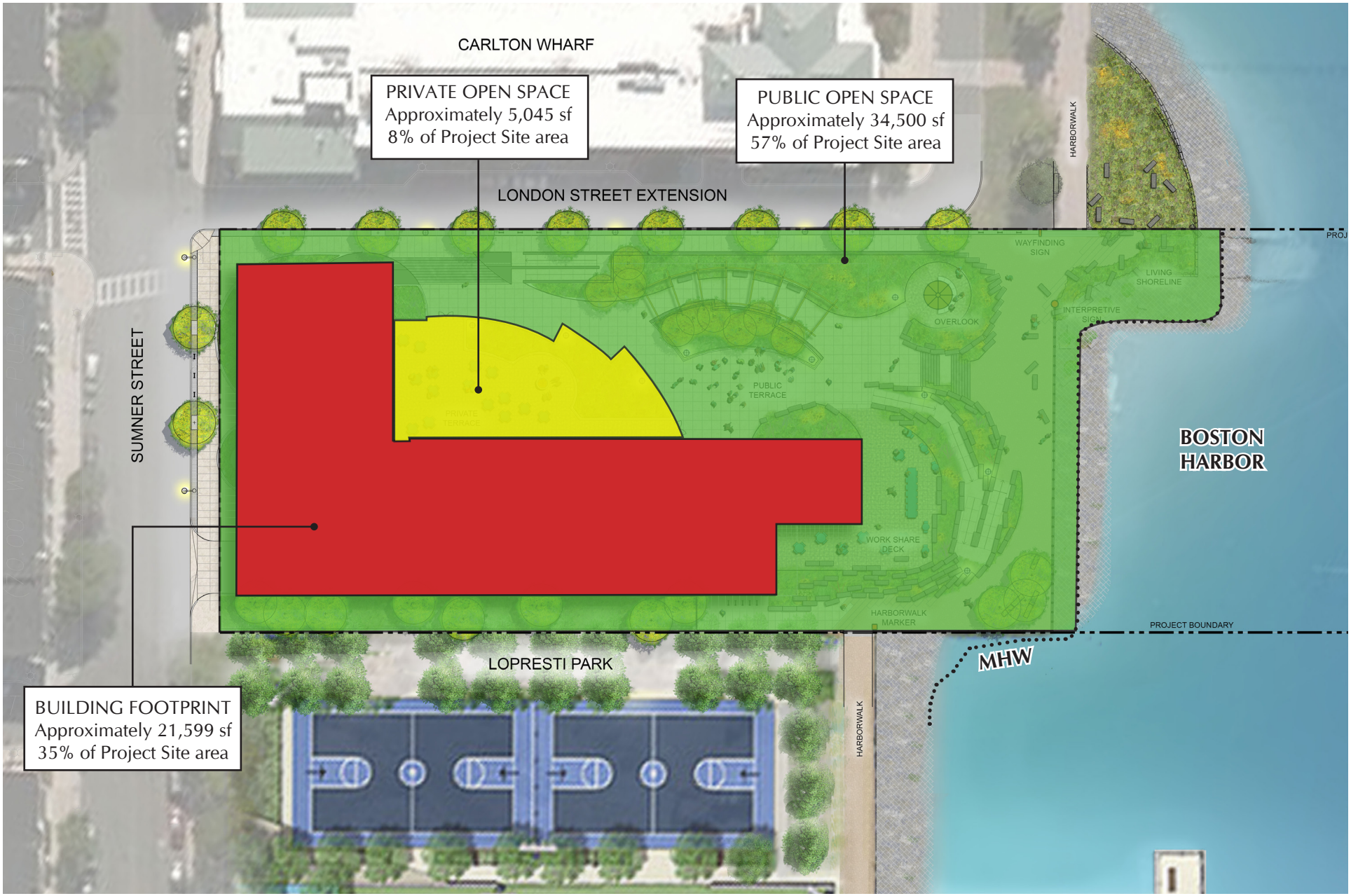


Figure 7-4
Water Dependent Use Zone
Source: Cube 3 Studio, 2017



East Boston, Massachusetts

Figure 7-5
Open Space Requirements
Source: Cube 3 Studio, 2017

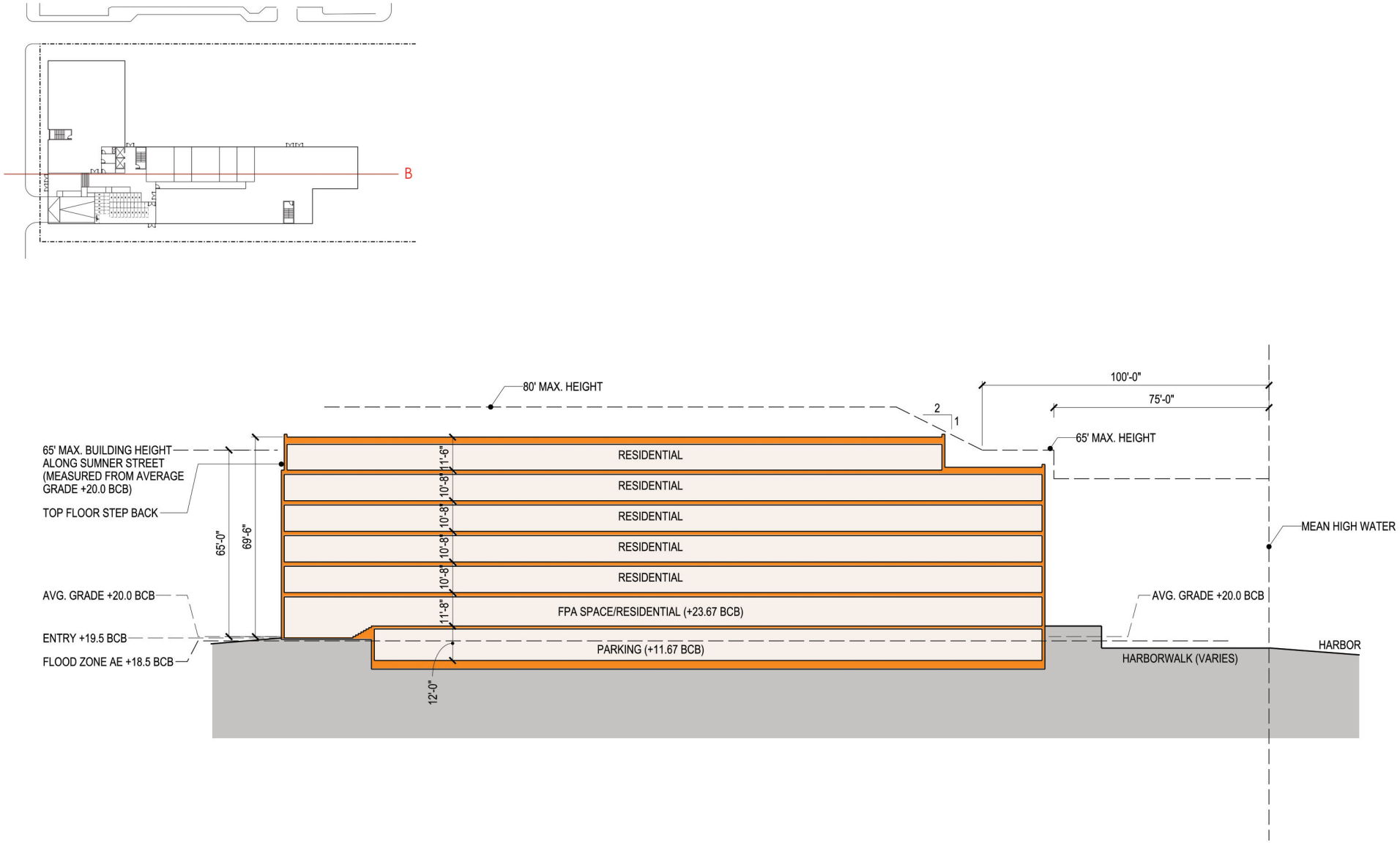


Figure 7-6
Height Requirements
Source: Fort Point Associates, Inc., 2017

Chapter 8

HISTORIC RESOURCES

CHAPTER 8: HISTORIC RESOURCES

8.1 BACKGROUND

The 99 Sumner Street Project Site is the location of the former Hodge Boiler Works shop, which was constructed in 1902 and was the largest timber-frame industrial building of its period. The building was listed in the Inventory of Historic and Archaeological Assets of the Commonwealth. Both the Hodge Boiler Works shop and two office buildings, located to the east of the main building, were included in the Boston Landmarks Commission (BLC) industrial waterfront survey.

The prior developer's representatives met with Massachusetts Historical Commission (MHC) staff and BLC staff on February 26, 2004 to explore ways to avoid, minimize, or mitigate development impacts on the Hodge Boiler Works shop and associated outbuildings. At that meeting, it was determined there is no viable alternative to the proposed building demolition other than a no-build scenario. The prior developer agreed to provide photographic documentation and to include an historic interpretive sign relating to the history of the Hodge Boiler Works shop and its relationship to East Boston's maritime history. This photographic documentation was submitted to MHC and BLC by the prior developer. The Proponent commits to the installation of one historic interpretive sign on the Project Site.

Because the structures and outbuildings were not adaptable for re-use as a residential building, the applications to demolish existing structures were approved by the City of Boston Inspectional Services Department (ISD) on March 27, 2006, and the buildings were demolished that spring.

8.2 HISTORIC AND ARCHAEOLOGICAL RESOURCES

The Project Site does not presently contain any known structure, site, or building listed or potentially eligible for listing on the National Register of Historic Places or State Register of Historic Places. The property is not within a National Register Historic District or within a historic district that has been identified as potentially eligible for the National Register. The Project Site is located in the Massachusetts Cultural Resource Information System (MACRIS) East Boston Inner Harbor Industrial Inventoried Area, which was drawn to include the demolished Hodge Boiler Works buildings. The Project is proposing residential and commercial uses and associated parking. The proposed building will be smaller in form and scale to the previously existing buildings and the fabric of the surrounding neighborhood. Therefore, no adverse impacts to the historic structures in the surrounding area will result from the Project.

An area of potential effect (APE) of one-quarter mile has been analyzed for the purposes of identifying historic resources and assessing potential project-related impacts. A review of the Massachusetts Historical Commission (MHC) inventory revealed 34 extant inventoried historic properties and all or part of five MHC inventoried districts within the APE. There are no structures or districts within the APE listed on the National Register of Historic Places.

There are no known archaeological sites on the Project Site.

8.2.1 HISTORIC RESOURCES IN THE VICINITY OF THE PROJECT SITE

Historic resources within approximately one-quarter mile of the study area are described in Table 8-1 and shown in Figure 8-1, Historic Resources in the Vicinity of the Project Site.

Table 8-1: Historic Inventory Areas Listed on MACRIS

#	Name/ Location	Description of Resource	Impact of Project on Resource
Historic Inventory Areas Listed on MACRIS			
1	8-18 Henry Street 9-28 Paris Street	Pocket of primarily residential construction located immediately west of Maverick Square. Built in the 1940s. Recommended for Paris Street National Register District.	No impact.
2	Maverick Square Area/Hotel Square	The oldest commercial focus in East Boston and the site of major commercial and institutional construction of both local and regional significance, although little remains today. The Maverick Square open space survives from the original 1833 plan of East Boston.	No impact.
3	Most Holy Redeemer Roman Catholic Church Complex	The oldest church and the oldest stone building existing in East Boston. Recommended for National Register Individual listing.	No impact.
4	East Boston Inner Harbor Industrial Area	Industrial Complex or District	No impact.
5	East Boston Dry Dock Company/Atlantic Works Shipyard	Abandoned or Vacant; Carpenter Shop; Other Industrial; Ship Yard	No impact.

Table 8-2: Individual Historic Inventory Properties Listed on MACRIS

#	Name	Address	MHC Description of Resource	Impact of Project on Resource
Individual Historic Inventory Properties Listed on MACRIS				
BOS.119	White, George Fund East Boston Health Unit	75 Paris St	Colonial Revival	No impact.
BOS.96	East Boston Police Station and Court House	35-39 Meridian St	Classical Revival	No impact.

BOS.15886	Atlantic Works Welding and Engineering Building	36 New St	No style	No impact.
BOS.9677	Atlantic Works Gate	102 Border St		No impact.
BOS.30		8-18 Henry St	Greek Revival	No impact.
BOS.74	Most Holy Redeemer Roman Catholic Church	70 Maverick St	Gothic Revival	No impact.
BOS.80	East Boston Savings Bank	10-16 Meridian St	Classical Revival	No impact.
BOS.9805	Sumner Tunnel - East Boston Vent Tower	65 Liverpool St		No impact.
BOS.117	Engine #9 - Ladder Company #2 Fire House	60 Paris St	Not researched	No impact.
BOS.9672	Atlantic Works Derrick Pier	102 Border St		No impact.
BOS.77	Most Holy Redeemer Roman Catholic Church Rectory	65 London St	High Victorian Gothic	No impact.
BOS.9673	Atlantic Works Pier No. 5	102 Border St		
BOS.12874	Atlantic Boiler Works - Wigglesworth Machinery Co.	60 Border St	No style	No impact.
BOS.31		18-20 Paris St	Greek Revival	No impact.
BOS.12875	Atlantic Boiler Works	80 Border St	No style	No impact.
BOS.9671	Atlantic Works Pier No. 4	102 Border St		No impact.
BOS.108	Atlantic Boiler Works Boiler Shop	40 New St	No style	No impact.
BOS.192	Woodbury Building	191-201 Sumner St	Greek Revival	No impact.
BOS.901	East Boston Tunnel - Third Rail Tunnel	Maverick Sq.		No impact.
BOS.9678	New Street Sea Wall	6-26 New St		No impact.
BOS.9674	Atlantic Works Marine Railway No. 2	102 Border Street		No impact.
BOS.76	Sisters of Notre Dame Roman Catholic Convent	56 Havre St	Greek Revival; Second Empire;	No impact.
BOS.9674	Atlantic Works Marine Railway No. 3	102 Border St		No impact.
BOS.906	Sumner Street Bridge over Conrail	Sumner St		No impact.
BOS.73	Winthrop Block	32-44 Maverick Sq.	Altered beyond recognition	No impact.
BOS.33	Our Savior American Lutheran Church	28 Paris St	Colonial Revival	No impact.
BOS.75	Most Holy Redeemer Roman Catholic School	69 London St	Victorian Eclectic	No impact.
BOS.9463	Street Clock	9 Chelsea St		No impact.
BOS.911	Callahan Tunnel East Boston Vent Building	89 London St		No impact.
BOS.107	Boston Cold Storage Company - Building #8	10-16 New St	No style	No impact.
BOS.79	First Ward National Bank	2-8 Meridian St	Classical Revival	No impact.

BOS.81	Columbia Trust Company Building	18-20 Meridian St	Renaissance Revival	No impact.
BOS.32		22-24 Paris St	Greek Revival	No impact.
BOS.12885	American Architectural Iron Company	80 Liverpool St	No style	No impact.
BOS.900	Maverick Square Subway Station	Maverick Square		No impact.

MACRIS Inventoried Areas

- 8-18 Henry Street - 9-28 Paris Street
- Maverick Square Area
- Most Holy Redeemer Roman Catholic Church Complex
- East Boston Inner Harbor Industrial Area
- East Boston Dry Dock Company

MACRIS Inventoried Individual Properties

1 BOS187: Demolished (Hodge Boiler Works)
2 BOS 188: Demolished (Hodge Boiler Works)
3 BOS 107: Boston Cold Storage Company - Building #8
4 BOS 9678: New Street Sea Wall
5 BOS 15886: Atlantic Works Welding & Eng. Building
6 BOS 108: Atlantic Boiler Works Boiler Shop
7 BOS 12875: Atlantic Boiler Works
8 BOS 9671: Atlantic Works Pier No. 4
9 BOS 9672: Atlantic Works Derrick Pier
10 BOS 911: Callahan Tunnel East Boston Vent Building
11 BOS 75: Most Holy Redeemer Roman Catholic School
12 BOS 77: Most Holy Redeemer Rectory
13 BOS 74: Most Holy Redeemer Roman Catholic Church
14 BOS 76: Sisters of Notre Dame Roman Catholic Convent
15 BOS 117: Engine #9 - Ladder Company #2 Fire House
16 BOS 9673: Atlantic Works Pier No. 5
17 BOS 96: East Boston Police Station and Court House
18 BOS 81: Columbia Trust Company Building
19 BOS 80: East Boston Savings Bank
20 BOS 79: First Ward National Bank
21 BOS 73: Winthrop Block
22 BOS 9463: Street Clock
23 BOS 900: Maverick Subway Station
24 BOS 901: East Boston Tunnel - Third Rail Tunnel
25 BOS 192: Woodbury Building
26 BOS 30: 8-18 Henry Street
27 BOS 31: 18-20 Paris Street
28 BOS 32: 22-24 Paris Street
29 BOS 33: Our Savior American Lutheran Church
30 BOS 906: Sumner Street Bridge over Conrail
31 BOS 9674: Atlantic Works Marine Railway No. 3
32 BOS 9675: Atlantic Works Marine Railway No. 2
33 BOS 12885: American Architectural Iron Company

East Boston, Massachusetts

Figure 8-1

Historic Resources in the Vicinity of the Project Site

Source: Fort Point Associates, Inc. 2017

Attachment A

CLIMATE CHANGE PREPAREDNESS AND RESILIENCY CHECKLIST FOR NEW CONSTRUCTION

Climate Change Preparedness and Resiliency Checklist for New Construction

In November 2013, in conformance with the Mayor's 2011 Climate Action Leadership Committee's recommendations, the Boston Redevelopment Authority adopted policy for all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding project resiliency, preparedness, and to mitigate any identified adverse impacts that might arise under future climate conditions.

For more information about the City of Boston's climate policies and practices, and the 2011 update of the climate action plan, *A Climate of Progress*, please see the City's climate action web pages at http://www.cityofboston.gov/climate

In advance we thank you for your time and assistance in advancing best practices in Boston.

Climate Change Analysis and Information Sources:

1. Northeast Climate Impacts Assessment (www.climatechoices.org/ne/)
2. USGCRP 2009 (http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/)
3. Army Corps of Engineers guidance on sea level rise (http://planning.usace.army.mil/toolbox/library/ECs/EC11652212Nov2011.pdf)
4. Proceeding of the National Academy of Science, "Global sea level rise linked to global temperature", Vermeer and Rahmstorf, 2009 (http://www.pnas.org/content/early/2009/12/04/0907765106.full.pdf)
5. "Hotspot of accelerated sea-level rise on the Atlantic coast of North America", Asbury H. Sallenger Jr*, Kara S. Doran and Peter A. Howd, 2012 (http://www.bostonredevelopmentauthority.org/planning/Hotspot of Accelerated Sea-level Rise 2012.pdf)
6. "Building Resilience in Boston": Best Practices for Climate Change Adaptation and Resilience for Existing Buildings, Linnean Solutions, The Built Environment Coalition, The Resilient Design Institute, 2103 (http://www.greenribboncommission.org/downloads/Building_Resilience_in_Boston_SML.pdf)

Checklist

Please respond to all of the checklist questions to the fullest extent possible. For projects that respond "Yes" to any of the D.1 – Sea-Level Rise and Storms, Location Description and Classification questions, please respond to all of the remaining Section D questions.

Checklist responses are due at the time of initial project filing or Notice of Project Change and final filings just prior seeking Final BRA Approval. A PDF of your response to the Checklist should be submitted to the Boston Redevelopment Authority via your project manager.

Please Note: When initiating a new project, please visit the BRA web site for the most current Climate Change Preparedness & Resiliency Checklist.

A.1 - Project Information

Project Name:	99 Sumner Street
Project Address Primary:	99 Sumner St., Boston, MA (East Boston)
Project Address Additional:	DIV Sumner Street, LLC, c/o The Davis Companies,125 High St., 5th Floor, Boston, MA
Project Contact (name / Title / Company / email / phone):	Stephen Davis, Vice President, The Davis Companies sdavis@thedaviscompanies.com 617-451-1300

A.2 - Team Description

Owner / Developer:	DIV Sumner Street, LLC,
Architect:	CUBE 3 Studio
Engineer (building systems):	TBD
Sustainability / LEED:	Building Consultation Services
Permitting:	Fort Point Associates
Construction Management:	TBD
Climate Change Expert:	TBD

A.3 - Project Permitting and Phase

At what phase is the project – most recent completed submission at the time of this response?

PNF / Expanded PNF Submission	Draft / Final Project Impact Report Submission	BRA Board Approved	**Notice of Project Change**
Planned Development Area	BRA Final Design Approved	Under Construction	Construction just completed:

A.4 - Building Classification and Description

List the principal Building Uses:	Residential, office/ work share space
List the First Floor Uses:	Residential, Work Share Space, Bike Storage (parking below)

What is the principal Construction Type – select most appropriate type?

Wood Frame	Masonry	Steel Frame	Concrete

Describe the building?

Site Area:	62,988 *SF*	Building Area:	*160,000+/- gross sq ft*
Building Height:	*69'6" Ft.*	Number of Stories:	*6 Flrs.*
First Floor Elevation (reference Boston City Base):	*23.67' Elev.*	Are there below grade spaces/levels, if yes how many:	*Yes, 1 floor 83 spaces*

A.5 - Green Building

Which LEED Rating System(s) and version has or will your project use (by area for multiple rating systems)?

Select by Primary Use:	**New Construction**	Core & Shell	Healthcare	Schools
	Retail	Homes Midrise	Homes	Other
Select LEED Outcome:	Certified	**Silver**	Gold	Platinum

Will the project be USGBC Registered and / or USGBC Certified?

Registered:	*Yes / No*	Certified:	*Yes / No*
	TBD		TBD

A.6 - Building Energy

What are the base and peak operating energy loads for the building?

Electric - base / peak:	*62 / 124 (kW)*	Heating – base / peak:	*0.4 /0.8 (MMBtu/hr)*
What is the planned building Energy Use Intensity:	*30.7 (kbut/SF or kWh/SF)*	Cooling – base / peak:	*36/ 72 (Tons/hr)*

What are the peak energy demands of your critical systems in the event of a service interruption?

Electric:	*60 +/- (TBD) (kW)*	Heating:	*0.4- 5 (TBD) (MMBtu/hr)*
		Cooling:	*40 (TBD)(Tons/hr)*

What is nature and source of your back-up / emergency generators?

Electrical Generation:	*(TBD) (kW)*		Fuel Source:	
System Type and Number of Units:	Combustion Engine	Gas Turbine	Combine Heat and Power	*TBD (Units)*

B - Extreme Weather and Heat Events

Climate change will result in more extreme weather events including higher year round average temperatures, higher peak temperatures, and more periods of extended peak temperatures. The section explores how a project responds to higher temperatures and heat waves.

B.1 - Analysis

What is the full expected life of the project?

Select most appropriate:	10 Years	25 Years	**50 Years**	75 Years

What is the full expected operational life of key building systems (e.g. heating, cooling, and ventilation)?

Select most appropriate:	10 Years	25 Years	**50 Years**	75 Years

What time span of future Climate Conditions was considered?

Select most appropriate:	10 Years	25 Years	**50 Years**	75 Years

Analysis Conditions - What range of temperatures will be used for project planning – Low/High?

7/ 91 Deg.

What Extreme Heat Event characteristics will be used for project planning – Peak High, Duration, and Frequency?

TBD *Deg.*	*TBD Days*	*TBD Events / yr.*

What Drought characteristics will be used for project planning – Duration and Frequency?

TBD Days	*TBD Events / yr.*

What Extreme Rain Event characteristics will be used for project planning – Seasonal Rain Fall, Peak Rain Fall, and Frequency of Events per year?

TBD Inches / yr.	*TBD Inches*	*TBD Events / yr.*

What Extreme Wind Storm Event characteristics will be used for project planning – Peak Wind Speed, Duration of Storm Event, and Frequency of Events per year?

TBD Peak Wind	*TBD Hours*	*TBD Events / yr.*

B.2 - Mitigation Strategies

What will be the overall energy performance, based on use, of the project and how will performance be determined?

Building energy use below code:	*23.4(est) %*
How is performance determined:	Energy Modeling in accordance with ASHRAE 90.1 Appendix G

What specific measures will the project employ to reduce building energy consumption?

Select all appropriate:	High performance building envelope	**High performance lighting & controls**	Building day lighting	**EnergyStar equip. / appliances**
	High performance HVAC equipment	Energy recovery ventilation	No active cooling	No active heating
Describe any added measures:				

What are the insulation (R) values for building envelope elements?

Roof:	*R* = 38	Walls / Curtain Wall Assembly:	*R* = 21
Foundation:	*R* = 10	Basement / Slab:	*R* = 10
Windows:	*R* = / *U* = .30	Doors:	*R* = / *U* = .35

What specific measures will the project employ to reduce building energy demands on the utilities and infrastructure?

Select all appropriate:	On-site clean energy / CHP system(s)	Building-wide power dimming	Thermal energy storage systems	Ground source heat pump
	On-site Solar PV	On-site Solar Thermal	Wind power	None
Describe any added measures:	TBD			

Will the project employ Distributed Energy / Smart Grid Infrastructure and /or Systems?

Select all appropriate:	Connected to a local electrical micro-grid	Building will be Smart Grid ready	Connected to distributed steam, hot, chilled water	Distributed thermal energy ready

Will the building remain operable without utility power for an extended period?

	*Yes / **No***	If yes, for how long:	*Days*
If Yes, is building "Islandable?			
If Yes, describe strategies:			

Describe any non-mechanical strategies that will support building functionality and use during an extended interruption(s) of utility services and infrastructure:

Select all appropriate:	Solar oriented – longer south walls	Prevailing winds oriented	External shading devices	Tuned glazing,
	Building cool zones	**Operable windows**	**Natural ventilation**	Building shading
	Potable water for drinking / food preparation	**Potable water for sinks / sanitary systems**	Waste water storage capacity	**High Performance Building Envelope**
Describe any added measures:	TBD			

What measures will the project employ to reduce urban heat-island effect?

Select all appropriate:	High reflective paving materials	Shade trees & shrubs	**High reflective roof materials**	**Vegetated roofs garage roof**
Describe other strategies:	TBD			

What measures will the project employ to accommodate rain events and more rain fall?

Select all appropriate:	On-site retention systems & ponds	**Infiltration galleries & areas**	vegetated water capture systems	**Vegetated roofs garage roof**
Describe other strategies:	**TBD**			

What measures will the project employ to accommodate extreme storm events and high winds?

Select all appropriate:	Hardened building structure & elements	Buried utilities & hardened infrastructure	Hazard removal & protective landscapes	Soft & permeable surfaces (water infiltration)
Describe other strategies:	TBD			

C - Sea-Level Rise and Storms

Rising Sea-Levels and more frequent Extreme Storms increase the probability of coastal and river flooding and enlarging the extent of the 100 Year Flood Plain. This section explores if a project is or might be subject to Sea-Level Rise and Storm impacts.

C.1 - Location Description and Classification:

Do you believe the building to susceptible to flooding now or during the full expected life of the building?

***Yes** / No*

Describe site conditions?

Site Elevation – Low/High Points:	*Boston City Base 10.8 / 19.0 (Ft.)*
Building Proximity to Water:	*80 +/- Ft.*

Is the site or building located in any of the following?

Coastal Zone:	***Yes*** / *No*	Velocity Zone:	***Yes*** / *No*
Flood Zone:	***Yes*** / *No*	Area Prone to Flooding:	***Yes*** / *No*

Will the 2013 Preliminary FEMA Flood Insurance Rate Maps or future floodplain delineation updates due to Climate Change result in a change of the classification of the site or building location?

2013 FEMA Prelim. FIRMs:	*Yes* / ***No*** ***(2016 maps)***	Future floodplain delineation updates:	*Yes / No TBD*

What is the project or building proximity to nearest Coastal, Velocity or Flood Zone or Area Prone to Flooding?

0 Ft.

If you answered YES to any of the above Location Description and Classification questions, please complete the following questions. ***Otherwise you have completed the questionnaire; thank you!***

C - Sea-Level Rise and Storms

This section explores how a project responds to Sea-Level Rise and / or increase in storm frequency or severity.

C.2 - Analysis

How were impacts from higher sea levels and more frequent and extreme storm events analyzed:

Sea Level Rise:	*3 Ft.*	Frequency of storms:	*0.25 per year*

C.3 - Building Flood Proofing

Describe any strategies to limit storm and flood damage and to maintain functionality during an extended periods of disruption.

What will be the Building Flood Proof Elevation and First Floor Elevation:

Flood Proof Elevation:	*Boston City Base 18.5 Elev.(Ft.)*	First Floor Elevation:	*Boston City Base 23.67 Elev. (Ft.)*

Will the project employ temporary measures to prevent building flooding (e.g. barricades, flood gates):

	Yes / No	If Yes, to what elevation	*Boston City Base Elev. (Ft.)*
If Yes, describe:	TBD		

What measures will be taken to ensure the integrity of critical building systems during a flood or severe storm event:

Other measures TBD	Systems located above 1st Floor.	Water tight utility conduits	Waste water back flow prevention	**Storm water back flow prevention**

Were the differing effects of fresh water and salt water flooding considered:

*Yes / **No***

Will the project site / building(s) be accessible during periods of inundation or limited access to transportation:

	Yes / *No*	If yes, to what height above 100 Year Floodplain:	*Boston City Base 19.5 Elev. (Ft.)*

Will the project employ hard and / or soft landscape elements as velocity barriers to reduce wind or wave impacts?

	Yes */ No*
If Yes, describe:	TBD

Will the building remain occupiable without utility power during an extended period of inundation:

TBD *Yes / No*	If Yes, for how long:	*days*

Describe any additional strategies to addressing sea level rise and or sever storm impacts:

TBD

C.4 - Building Resilience and Adaptability

Describe any strategies that would support rapid recovery after a weather event and accommodate future building changes that respond to climate change:

Will the building be able to withstand severe storm impacts and endure temporary inundation?

Select appropriate:	*Yes / No* TBD	Hardened / Resilient Ground Floor Construction	Temporary shutters and or barricades	Resilient site design, materials and construction

Can the site and building be reasonably modified to increase Building Flood Proof Elevation?

Select appropriate:	*Yes /* ***No***	Surrounding site elevation can be raised	Building ground floor can be raised	Construction been engineered
Describe additional strategies:	The first floor-designed to-	-and critical--be above	-equipment-----base flood-	-are already--elevation.

Has the building been planned and designed to accommodate future resiliency enhancements?

Select appropriate:	***Yes*** */ No*	**Solar PV**	Solar Thermal	Clean Energy / CHP System(s)
		Potable water storage	Wastewater storage	Back up energy systems & fuel
Describe any specific or additional strategies:				

Thank you for completing the Boston Climate Change Resilience and Preparedness Checklist!

For questions or comments about this checklist or Climate Change Resiliency and Preparedness best practices, please contact: John.Dalzell@boston.gov

Attachment B

ACCESSIBILITY CHECKLIST

Accessibility Checklist

(to be added to the BRA Development Review Guidelines)

In 2009, a nine-member Advisory Board was appointed to the Commission for Persons with Disabilities in an effort to reduce architectural, procedural, attitudinal, and communication barriers affecting persons with disabilities in the City of Boston. These efforts were instituted to work toward creating universal access in the built environment.

In line with these priorities, the Accessibility Checklist aims to support the inclusion of people with disabilities. In order to complete the Checklist, you must provide specific detail, including descriptions, diagrams and data, of the universal access elements that will ensure all individuals have an equal experience that includes full participation in the built environment throughout the proposed buildings and open space.

In conformance with this directive, all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding the following:

- improvements for pedestrian and vehicular circulation and access;
- encourage new buildings and public spaces to be designed to enhance and preserve Boston's system of parks, squares, walkways, and active shopping streets;
- ensure that persons with disabilities have full access to buildings open to the public;
- afford such persons the educational, employment, and recreational opportunities available to all citizens; and
- preserve and increase the supply of living space accessible to persons with disabilities.

We would like to thank you in advance for your time and effort in advancing best practices and progressive approaches to expand accessibility throughout Boston's built environment.

Accessibility Analysis Information Sources:

1. Americans with Disabilities Act – 2010 ADA Standards for Accessible Design
    a. http://www.ada.gov/2010ADAstandards_index.htm
2. Massachusetts Architectural Access Board 521 CMR
    a. http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
3. Boston Complete Street Guidelines
    a. http://bostoncompletestreets.org/
4. City of Boston Mayors Commission for Persons with Disabilities Advisory Board
    a. http://www.cityofboston.gov/Disability
5. City of Boston – Public Works Sidewalk Reconstruction Policy
    a. http://www.cityofboston.gov/images_documents/sidewalk%20policy%200114_tcm3-41668.pdf
6. Massachusetts Office On Disability Accessible Parking Requirements
    a. www.mass.gov/anf/docs/mod/hp-parking-regulations-mod.doc
7. MBTA Fixed Route Accessible Transit Stations
    a. http://www.mbta.com/about_the_mbta/accessibility/

Article 80 | ACCESSIBILTY CHECKLIST

Project Information

Project Name:	99 Sumner Street/Hodge Boiler Works Site
Project Address Primary:	**99 Sumner Street, East Boston, MA 02128**
Project Address Additional:	
Project Contact (name / Title / Company / email / phone):	**Stephen Davis, sdavis@TheDavisCompanies.com, (617) 936-4854**

Team Description

Owner / Developer:	**DIV Sumner Street, LLC**
Architect:	**CUBE 3 Studio**
Engineer (building systems):	**TBD**
Sustainability / LEED:	**Building Consultation Services**
Permitting:	**Fort Point Associates, Inc.**
Construction Management:	**TBD**

Project Permitting and Phase

At what phase is the project – at time of this questionnaire? **Notice of Project Change**

PNF / Expanded PNF Submitted	Draft / Final Project Impact Report Submitted	BRA Board Approved
BRA Design Approved	Under Construction	Construction just completed:

Article 80 | ACCESSIBILTY CHECKLIST

Building Classification and Description

What are the principal Building Uses - select all appropriate uses?

	Residential – One to Three Unit	**Residential - Multi-unit, Four +**	Institutional	Education
	Commercial	Office	Retail	**Assembly**
	Laboratory / Medical	Manufacturing / Industrial	Mercantile	**Storage, Utility and Other**
First Floor Uses (List)	**Residential Amenity, Commercial Space, Residential Units, Storage**			

What is the Construction Type – select most appropriate type?

	Wood Frame	Masonry	**Steel Frame**	**Concrete**

Describe the building?

Site Area:	***62,998 SF***	Building Area:	***21,167 SF***
Building Height:	***69' – 9"***	Number of Stories:	***6 Stories.***
First Floor Elevation:	***19.5 BCB***	Are there below grade spaces:	***Yes*** / *No*

Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and proximate institutions such as, but not limited to hospitals, elderly and disabled housing, and general neighborhood information. The proponent should identify how the area surrounding the development is accessible for people with mobility impairments and should analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Provide a description of the development neighborhood and identifying characteristics.	**The Project Site is an approximately 1.5-acre lot on Sumner Street in East Boston. The immediate neighborhood is predominantly residential, with limited retail and other commercial spaces farther down Sumner Street to the east (small markets, restaurants). To the west of the Project Site is LoPresti Park, a recently renovated public park which includes basketball courts, a playground, soccer fields, and paths to the adjacent shoreline (Boston Harbor).**
List the surrounding ADA compliant MBTA transit lines and the proximity	**MBTA Maverick T stop (0.2 miles away), which has Blue Line subway and local bus service.**

to the development site: Commuter rail, subway, bus, etc.	
List the surrounding institutions: hospitals, public housing and elderly and disabled housing developments, educational facilities, etc.	**The Project Site is approximately 2 miles from Downtown Boston and the following medical facilities; BIDMC, MGH, Shriners, Tufts Floating Hospital, Tufts Medical Center. It is also within 1 mile of The Dante Alighieri Montessori School, East Boston Central Catholic School, Donald McKay School, Adams Elementary School, and The James Otis Elementary School. Housing developments include The Eddy, Carlton Wharf, Maverick Landing, and several others that offer rental units and condominiums.**
Is the proposed development on a priority accessible route to a key public use facility? List the surrounding: government buildings, libraries, community centers and recreational facilities and other related facilities.	**The Project Site borders LoPresti Park, a public recreational park that includes a soccer field, playground, basketball courts, and walking paths. It is also within 1 mile of Piers Park, another recreational park on the waterfront that includes sailing activities. Also within 1 mile is the East Boston Social Center and East Boston YMCA.**

Surrounding Site Conditions – Existing:

This section identifies the current condition of the sidewalks and pedestrian ramps around the development site.

Are there sidewalks and pedestrian ramps existing at the development site?	**Yes.**
If yes above, list the existing sidewalk and pedestrian ramp materials and physical condition at the development site.	**There is an existing sidewalk on the front of the property bordering Sumner Street. There are also existing sidewalks just outside the property line along London Street Extension and LoPresti Park. There are also existing sections of the East Boston Harborwalk on both the LoPresti Park and London Street Extension sides of the Project Site. The Project will connect these sections along the waterfront to provide a continuous Harborwalk experience.**
Are the sidewalks and pedestrian ramps existing-to-remain? If yes, have the sidewalks and pedestrian ramps been verified as compliant? If yes, please provide surveyors report.	**Yes, to remain. The Project will integrate with and/or complement the existing sidewalks.**
Is the development site within a historic district? If yes, please identify.	**No.**

Surrounding Site Conditions – Proposed

This section identifies the proposed condition of the walkways and pedestrian ramps in and around the development site. The width of the sidewalk contributes to the degree of comfort and enjoyment of walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Typically, a five foot wide Pedestrian Zone supports two people walking side by side or two wheelchairs passing each other. An eight foot wide Pedestrian Zone allows two pairs of people to comfortable pass each other, and a ten foot or wider Pedestrian Zone can support high volumes of pedestrians.

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? See: www.bostoncompletestreets.org	**Yes, the sidewalks will conform to Complete Streets guidelines.**
If yes above, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, Boulevard.	**Sumner Street will be designed as Neighborhood Main and London Street Extention as Residential.**
What is the total width of the proposed sidewalk? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone.	**The proposed widths are as follows:** **Sumner Street: Frontage= 7'; Pedestrian = 8'; Furnishing = 4'** **London Street Extension: Frontage= 4'-9"; Pedestrian = 7'; Furnishing = 2'-6"}**
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	**Sumner Street: Frontage= concrete pavement and landscape plantings on private land; Pedestrian = concrete pavement in Boston ROW; Furnishing = unit pavers, concrete pavement, furnishings and plantings in Boston right-of-way.** **London Street Extension: Frontage= concrete pavement, concrete steps and ramps on private land; Pedestrian = concrete pavement on private land; Furnishing = unit pavers, concrete pavement, furnishings and plantings on private land.**
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the City of Boston Public Improvement Commission?	**TBD**
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way?	**Sumner Street sidewalk will have bike racks, tree grates, and street lights. No Café or other seating is proposed.**

If yes above, what are the proposed dimensions of the sidewalk café or furnishings and what will the right-of-way clearance be?	**Sumner Street: bike racks = +/-6" wide x +/-2' long; tree grates = +/-3' wide x +/-6' long; street lights = existing reset pole bases}.**

Proposed Accessible Parking:

See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability Handicap Parking Regulations.

What is the total number of parking spaces provided at the development site parking lot or garage?	**83**
What is the total number of accessible spaces provided at the development site?	**7**
Will any on street accessible parking spaces be required? If yes, has the proponent contacted the Commission for Persons with Disabilities and City of Boston Transportation Department regarding this need?	**No**
Where is accessible visitor parking located?	**No accessible visitor parking is provided.**
Has a drop-off area been identified? If yes, will it be accessible?	**No**
Include a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations. Please include route distances.	**See attached figure.**

Circulation and Accessible Routes:

The primary objective in designing smooth and continuous paths of travel is to accommodate persons of all abilities that allow for universal access to entryways, common spaces and the visit-ability* of neighbors.

**Visit-ability – Neighbors ability to access and visit with neighbors without architectural barrier limitations*

Provide a diagram of the accessible route connections through the site.	**See attached figure. The courtyard will also include accessible ramps at both the London Street Extension and Harborwalk sides of the courtyard.**
Describe accessibility at each entryway: Flush Condition, Stairs, Ramp Elevator.	**The Project will include flush entry conditions, stairs, ramps, and elevators. The stairs and elevators will serve all floors, including the sub-grade parking floor.**
Are the accessible entrance and the standard entrance integrated?	**Yes**
If no above, what is the reason?	
Will there be a roof deck or outdoor courtyard space? If yes, include diagram of the accessible route.	**No roof deck is planned at this time. There is an outdoor courtyard. See the attached figure for the accessible route.**
Has an accessible routes way-finding and signage package been developed? If yes, please describe.	**No.**

Accessible Units: (If applicable)

In order to facilitate access to housing opportunities this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing choice.

What is the total number of proposed units for the development?	**119**

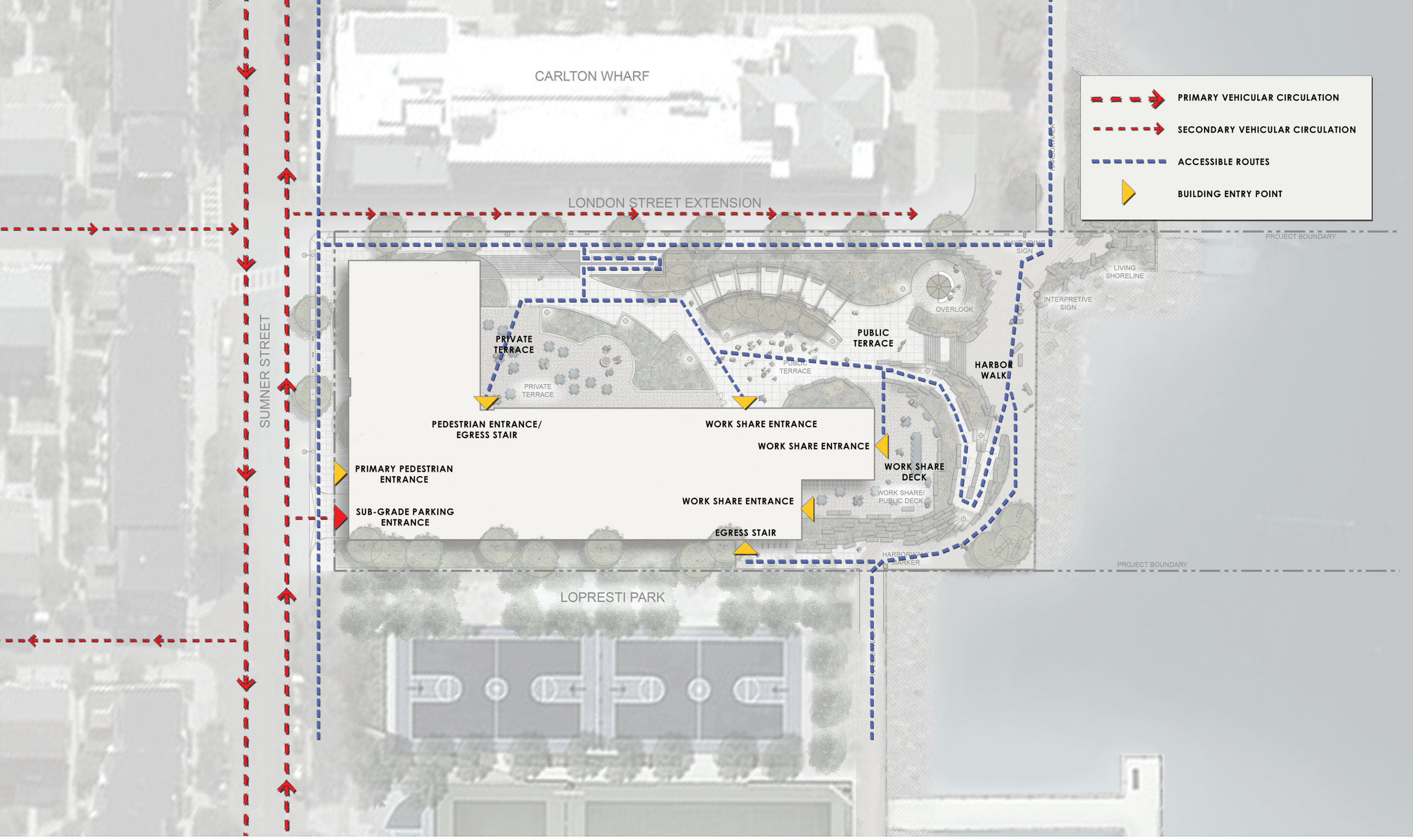
Article 80 | ACCESSIBILTY CHECKLIST

How many units are for sale; how many are for rent? What is the market value vs. affordable breakdown?	**All units are for rent. 112 units will be market rate and 7 units will be affordable.**
How many accessible units are being proposed?	**6**
Please provide plan and diagram of the accessible units.	**TBD**
How many accessible units will also be affordable? If none, please describe reason.	**TBD**
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs at entry or step to balcony. **If yes,** please provide reason.	**No**
Has the proponent reviewed or presented the proposed plan to the City of Boston Mayor's Commission for Persons with Disabilities Advisory Board?	**No. The Proponent will meet with the Commission and its staff as requested.**
Did the Advisory Board vote to support this project? **If no,** what recommendations did the Advisory Board give to make this project more accessible?	**The Proponent did not meet with the Advisory Board.**

Thank you for completing the Accessibility Checklist!

For questions or comments about this checklist or accessibility practices, please contact:

kathryn.quigley@boston.gov | Mayors Commission for Persons with Disabilities



99 SUMNER STREET | EAST BOSTON, MA | APRIL 4, 2017 | TRAFFIC AND CIRCULATION PLAN

THE DAVIS COMPANIES | CUBE 3 STUDIO | COPLEY WOLFF DESIGN GROUP

Attachment C

TRANSPORTATION APPENDIX

TRANSPORTATION APPENDIX

The Transportation Technical Appendix is available upon request under separate cover.